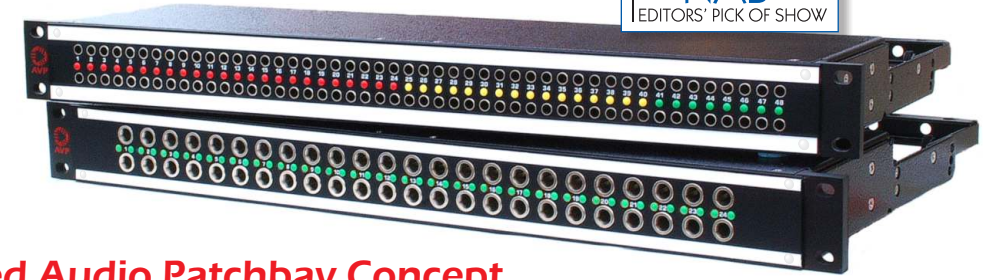
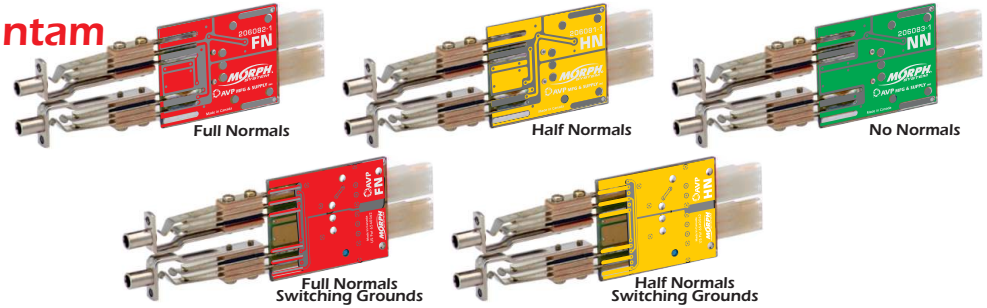
the AVP MORPH AUDIO SYSTEM

television broadcast NAB EDITORS' PICK OF SHOW

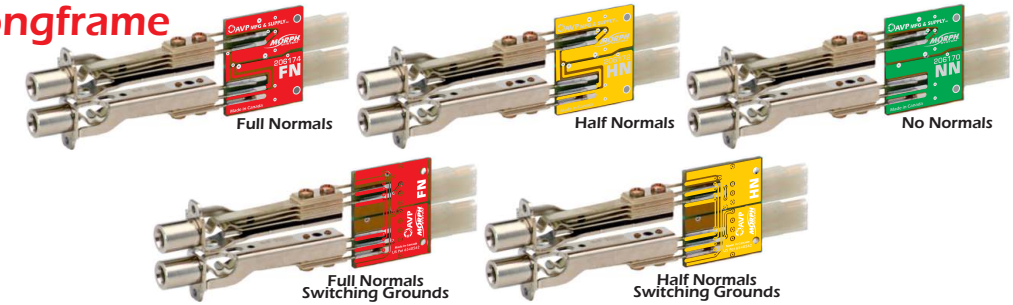


- Advanced Audio Patchbay Concept
- Next Generation Flexibility
- AES/EBU Digital and Analog Audio Application

Bantam



Longframe

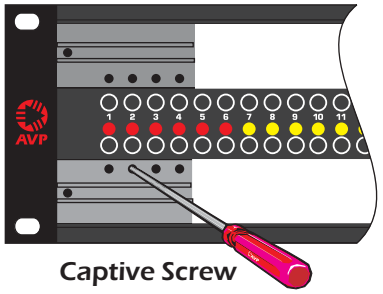


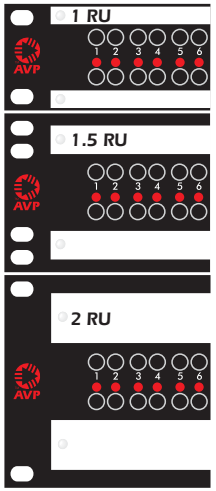
Application: AES/EBU, Analog

- Morph modules can be effortlessly identified, mixed and changed. Entire racks of jackfields can be re-configured anytime
- EDAC/ELCO 3 pin interface
- Modules are front mounted, providing a simple module interchange method
- Maximized designations

CIS

2RU Jackfield Frame

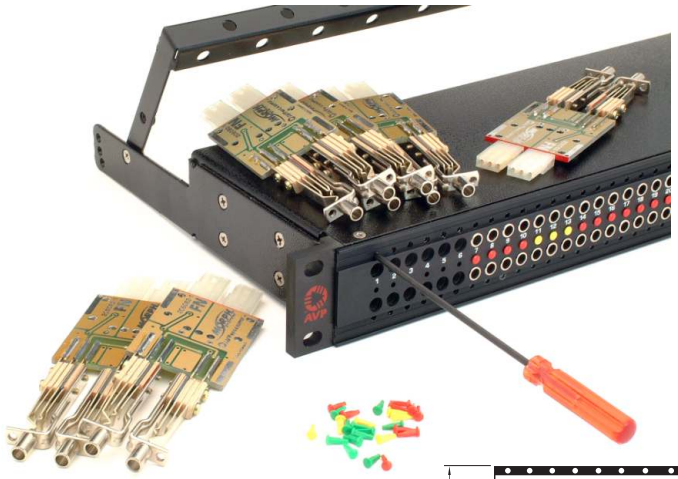




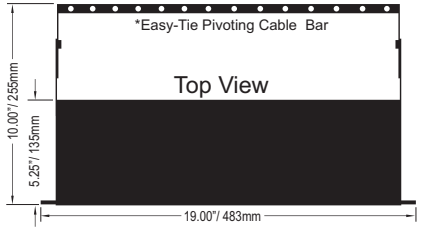
The award-winning Morph Audio System excels in specialty application requirements as found in mobile units and harsh environments. Its EDAC 3-pin terminations can withstand a 50 gravity vibration with no loss of continuity. In addition, the Morph System's short depth and light weight, allows installation in the tightest spaces.

toll free: 1-800-481-2493 USA & Canada
phone: +1-519-740-7966 • email: sales@jackfields.com
B5-2288 Dumfries Rd., RR2 Cambridge, Ontario Canada N1R 5S3

SMPTE CORPORATE MEMBER



Keep an inventory of Morph Modules and empty Morph frames to allow custom patchbay assembly or re-configuration in minutes! Morph modules fit 1, 1.5 & 2 Rack Unit frames.



CRIMP CHARACTERISTICS

- Contacts and Crimp Tools Accommodate from 28 AWG to 18 AWG, Solid or Stranded Conductor Diameters from .012" (0.30) to .049" (1.25) and an Insulation Diameter up to .074" (1.88)
- Multiple Smaller Gauge Wires may be Crimped Together
- Crimp Resistance from 0.5 Milliohms (18 AWG) to 1.5 Milliohms (28AWG)

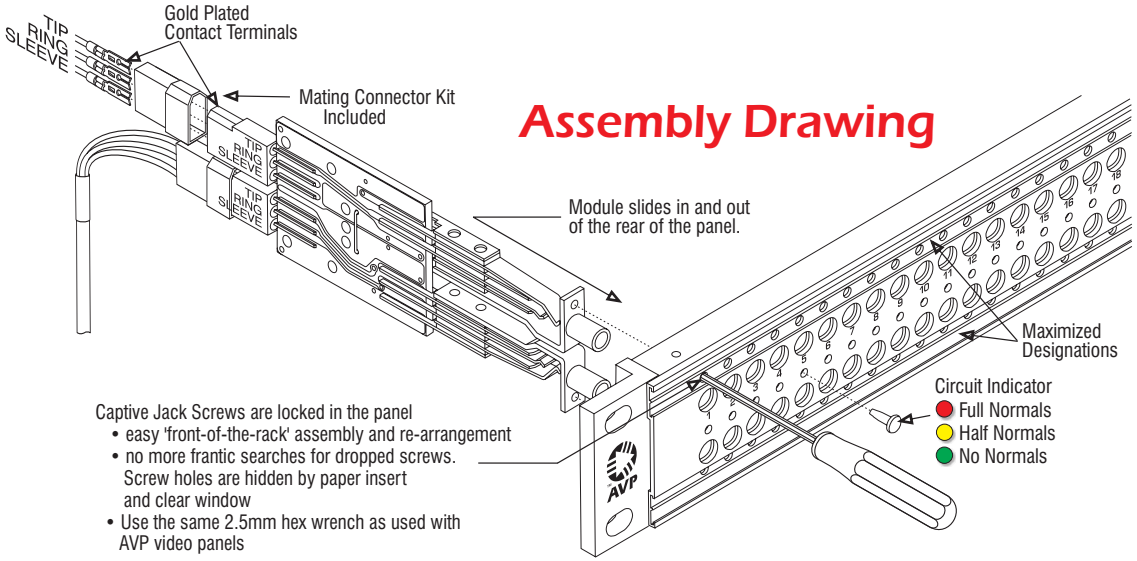
Mating Connector Kit

Each Morph Patchbay is shipped complete with its crimp-pin mating connector kit and a captive hex driver. *(See ordering information for more details)*

Mating Connector Kits, below, do not include the captive hex driver. Please contact AVP if required.

MK224P-E03C EDAC 3Pin Primaries Kit for 2x24 Patchbay, Crimp
MK226P-E03C EDAC 3Pin Primaries Kit for 2x26 Patchbay, Crimp
MK224P-E03S EDAC 3Pin Primaries Kit for 2x24 Patchbay, Solder
MK226P-E03S EDAC 3Pin Primaries Kit for 2x26 Patchbay, Solder

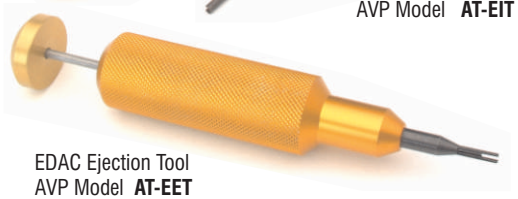
Assembly Drawing



Tooling

EDAC Hand Crimp Tool
AVP Model **AT-EHCT**

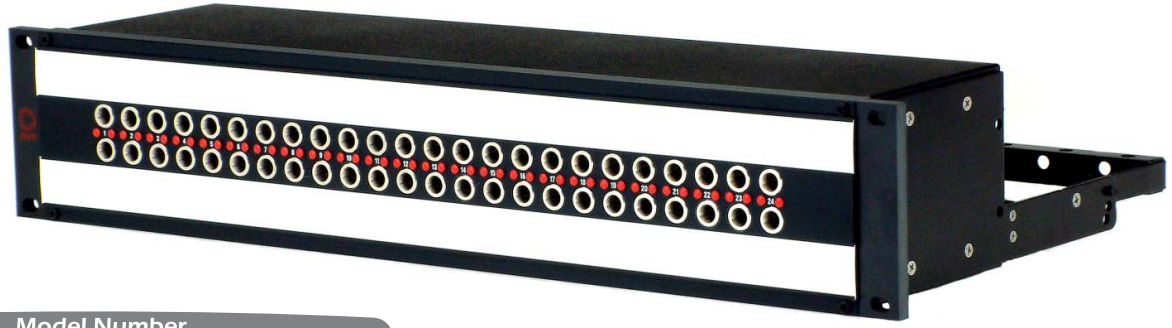
EDAC Insertion Tool
AVP Model **AT-EIT**



EDAC Ejection Tool
AVP Model **AT-EET**

Longframe

Panel illustrated:
AM-A224E2-L-FN-E03
2RU, 2x24 Frame with 24 Dual Full Normal Modules (AM-A-FN-E03) installed, Mating Connector Kit



Longframe Ordering Information

Model Number

	M	-	A	2		E		-	L	-		-	E03

Series

A	Mosaic (CIS)
T	Mosaic (Black CIS)

Number of Dual Modules

24	24 Modules
26	26 Modules

Panel Height

1	1 Rack Unit 1.75", 44mm
15	1.5 Rack Unit 2.62", 66mm
2	2 Rack Unit 3.50", 89mm

Installed Module Type

FN	Full Normals
HN	Half Normals
NN	No Normals
FNSG	Full Normals Switching Grounds
HNSG	Half Normal Switching Grounds

Options, *add to end of Model Number*

-SGVM	Strapped grounds at each vertical jack pair

Designation Layouts... www.jackfields.com/support

Popular Models and Components

Model	Description
Complete Patchbays	
AM-A224E1-L-FN-E03	1RU, 2x24 Frame with 24 Dual Full Normal Modules (AM-A-FN-E03) installed, Mating Connector Kit
AM-A224E1-L-HN-E03	1RU, 2x24 Frame with 24 Dual Half Normal Modules (AM-A-HN-E03) installed, Mating Connector Kit
AM-A224E1-L-NN-E03	1RU, 2x24 Frame with 24 Dual No Normal Modules (AM-A-NN-E03) installed, Mating Connector Kit
Individual Components	
AM-A-FN-E03	Dual Longframe Module, Full Normals, EDAC 3 pin termination
AM-A-HN-E03	Dual Longframe Module, Half Normals, EDAC 3 pin termination
AM-A-NN-E03	Dual Longframe Module, No Normals, EDAC 3 pin termination
AM-A224E1-Z	1RU, 2x24 Frame, empty
MK224P-E03C	EDAC 3Pin Primaries Kit for 2x24 Patchbay, Crimp
MK226P-E03C	EDAC 3Pin Primaries Kit for 2x26 Patchbay, Crimp

Longframe Audio Dust Plugs

DC-ABK10 ... Dust Plug, fits longframe audio jack, black, package of 10 plugs
DC-ABK50 ... Dust Plug, fits longframe audio jack, black, package of 50 plugs
For jack inside diameter, 0.250" [6.35mm]

Longframe Audio Patchcords

For 110 Ohm AES/EBU Digital and Analog Audio Application

Model Number

L	PC	-		-	

Patchcord Type

B	Bantam
L	Longframe

Patchcord Length

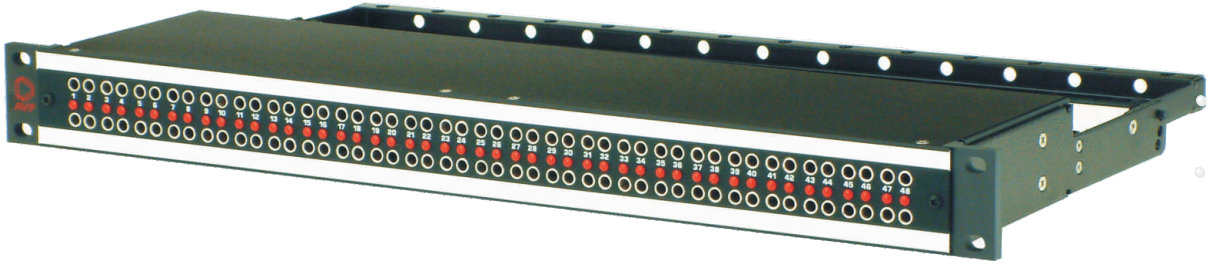
1	1' [300mm]
1.5	1.5' [450mm]
2	2' [600mm]
3	3' [900mm]
4	4' [1200mm]
6	6' [1800mm]
10	10' [3.05m]

BLACK	
RED	
GREEN	
BLUE	
YELLOW	
PURPLE	
ORANGE	
WHITE	

example... LPC-3-GREEN

Bantam

Panel illustrated:
AM-B248S1-L-FN-E03
1RU, 2x48 Frame with 48 Dual Full Normal Modules (AM-B-FN-E03) installed, Mating Connector Kit



Bantam Ordering Information

Model Number

	M	-	B	2	48	E		-	L	-		-	E03

Series

A	Mosaic (CIS)
T	Mosaic (Black CIS)

Module Spacing

E	Even Spaced

Panel Height

1	1 Rack Unit 1.75”, 44mm
15	1.5 Rack Unit 2.62”, 66mm
2	2 Rack Unit 3.50”, 89mm

Installed Module Type

FN	Full Normals
HN	Half Normals
NN	No Normals
FNSG	Full Normals Switching Grounds
HNSG	Half Normals Switching Grounds

Options, *add to end of Model Number*

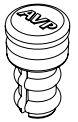
-SGVM	Strapped grounds at each vertical jack pair

Designation Layouts... www.jackfields.com/support

Popular Models and Components

Model	Description
Complete Patchbays	
AM-B248E1-L-FN-E03	1RU, 2x48 Frame with 48 Dual Full Normal Modules (AM-B-FN-E03) installed, Mating Connector Kit
AM-B248E1-L-HN-E03	1RU, 2x48 Frame with 48 Dual Half Normal Modules (AM-B-HN-E03) installed, Mating Connector Kit
AM-B248E1-L-NN-E03	1RU, 2x48 Frame with 48 Dual No Normal Modules (AM-B-NN-E03) installed, Mating Connector Kit
Individual Components	
AM-B-FN-E03	Dual Bantam Module, Full Normals, EDAC 3 pin termination
AM-B-HN-E03	Dual Bantam Module, Half Normals, EDAC 3 pin termination
AM-B-NN-E03	Dual Bantam Module, No Normals, EDAC 3 pin termination
AM-B248S1-Z	1RU, 2x48 Frame, empty
MK248P-E03C	EDAC 3Pin Primaries Kit for 2x48 Patchbay, Crimp
MK248P-E03S	EDAC 3Pin Primaries Kit for 2x48 Patchbay, Solder

Bantam (TT) Audio Dust Plugs



DC-BBK10 ... Dust Plug, fits bantam audio jack, black, package of 10 plugs
DC-BBK100 ... Dust Plug, fits bantam audio jack, black, package of 100 plugs
For jack inside diameter, 0.175" [4.45mm]

Bantam Audio Patchcords

For 110 Ohm AES/EBU Digital and Analog Audio Application

Model Number

B	PC	-		-	

Patchcord Type

B	Bantam
L	Longframe

Patchcord Length

1	1’ [300mm]
1.5	1.5’ [450mm]
2	2’ [600mm]
3	3’ [900mm]
4	4’ [1200mm]
6	6’ [1800mm]
10	10’ [3.05m]

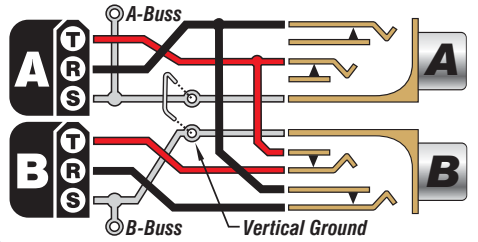
BLACK	
RED	
GREEN	
BLUE	
YELLOW	
PURPLE	
ORANGE	
WHITE	

example... BPC-3-GREEN

Morph Module Grounding

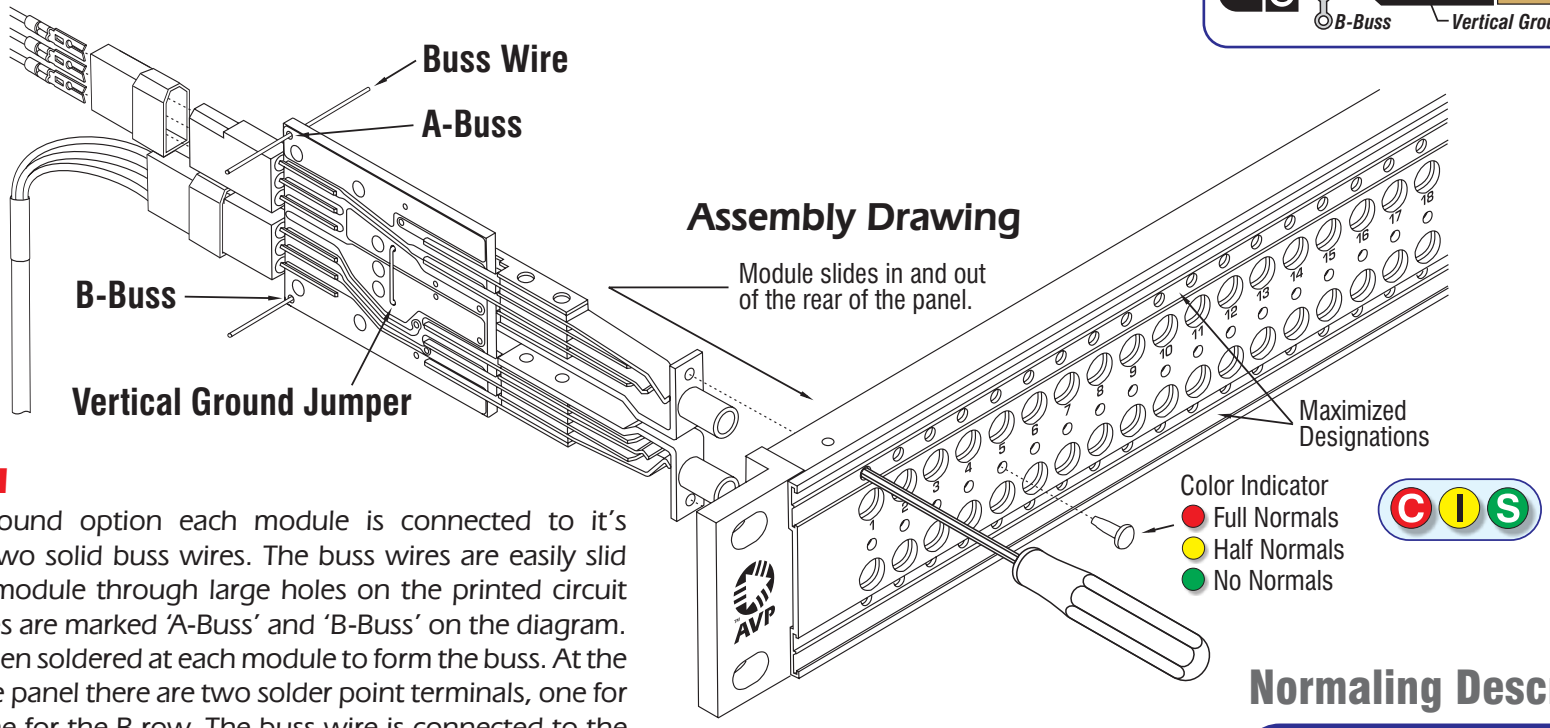
All modules in the Morph line offer a number of options for the shield connections of the jacks. Most common are the 'Vertical Ground' and 'Bussed Ground'.

HN Half Normals



Vertical Ground

The Vertical Ground option connects the shield from the 'A' row jack (top row) to the 'B' row jack (bottom row). This is accomplished by inserting a solid wire jumper that is the same shape and size as a standard paper staple into a set of holes on the module's printed circuit board. The jumper is then soldered in place to complete the connection.



Buss Ground

For the Buss Ground option each module is connected to it's neighbour with two solid buss wires. The buss wires are easily slid from module to module through large holes on the printed circuit board. These holes are marked 'A-Buss' and 'B-Buss' on the diagram. The buss wire is then soldered at each module to form the buss. At the left rear side of the panel there are two solder point terminals, one for the A row and one for the B row. The buss wire is connected to the terminal on the inside of the jackfield and provides the customer a location for making external connection to the busses.

To remove a module after applying the Buss Ground option, it is necessary to cut the buss wire on either side of the module to be removed. After the module is replaced a short buss wire can be re-attached to the cut end of the main buss wire to re-establish the buss grounds across the jackfield.

Normaling Descriptions

T: Tip	**TN:** Tip Normal
R: Ring	**RN:** Ring Normal
S: Sleeve	**SN:** Sleeve Normal

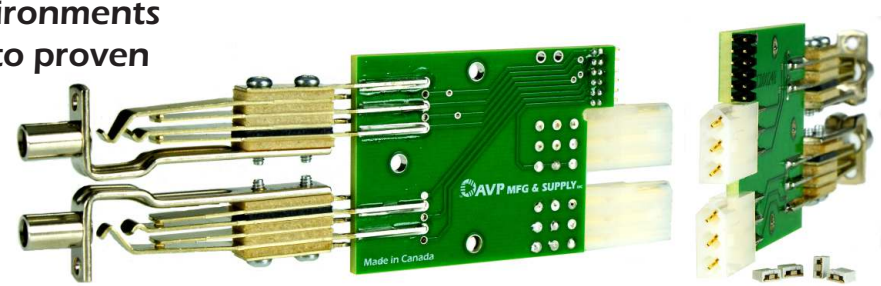
*US Patent No. 6,540,562

the AVP MORPH AUDIO SYSTEM

Delta Series
Programmable Jackfield System Patchbay

Featuring: AVP Patented MORPH AUDIO SYSTEM Style Modules

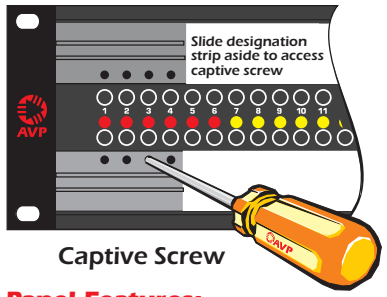
- Stellar performance in harsh environments
- Extensively used in mobiles due to proven reliablility and compact design
- Jacks rated at 30,000 cycles
- No dip switches
- No ribbon cable
- No excessive connectorization
- Gold-plated programming jumpers



Programmable Module
Available in Longframe & Bantam

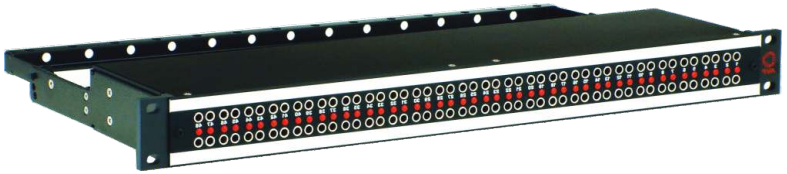
RoHS COMPLIANT

2RU Jackfield Frame

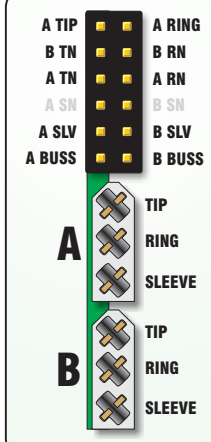


Captive Screw

Panel Features:
- CIS (Circuit Identification system) allows color-coding of each circuit's function, available in 10 colors
- Maximized designations
- Jackfield shipped with crimp-pin mating connector kit and a captive hex key (where applicable)



- Available in 1RU, 1.5RU & 2RU
- Bantam and Longframe
- Application: AES/EBU, Analog
- Access Programming Links at rear of panel



Programming Options

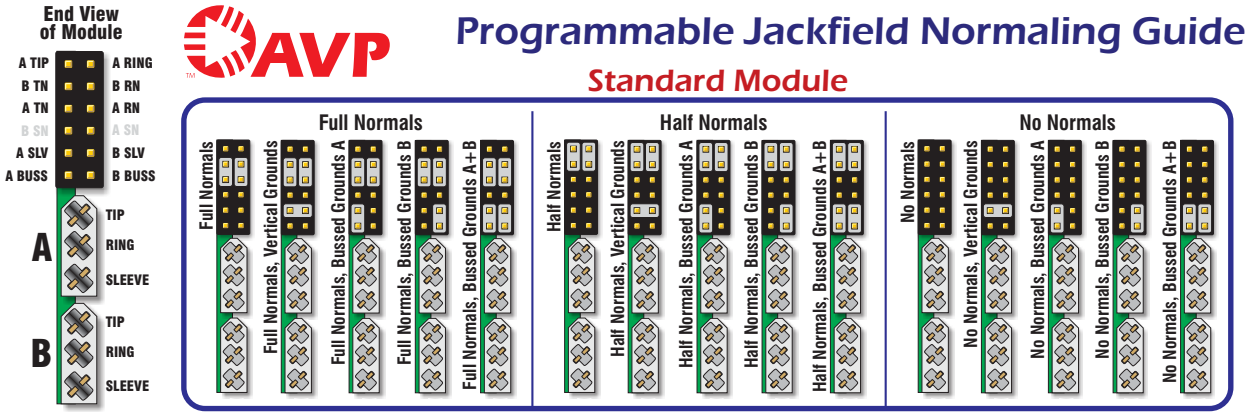
- Full Normals
- Half Normals
- No Normals
- Bussed Grounds
- Vertical Grounds
- Switching Grounds version also available

Rear View of Module with EDAC 3 pin connector interface (Sleeve = Ground)

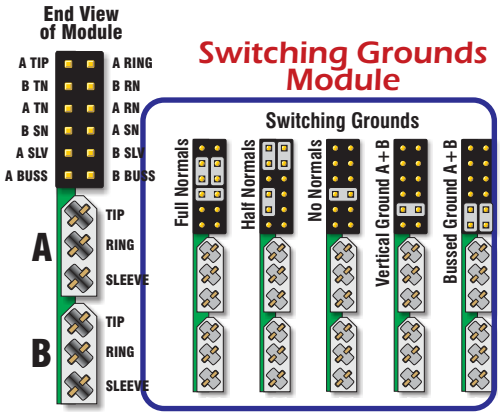
Studio or Mobile:
Morph style modules simplifies system design, saves space, adds flexibility, reliability and reduces weight.

Programmable Jackfield Normaling Guide

Standard Module



Switching Grounds Module



Programming Link Specifications

Materials

Mouldings:	Standard or High temperature Plastic, UL94V-0
Contacts:	Male: Copper alloy Female: Phosphor Bronze Link sockets: Beryllium Copper

Electrical

Current rating:	2A per single contact, 1A all contacts
Voltage rating:	250V AC/DC
Voltage proof:	650V AV
Contact resistance:	30 mOhm max.
Insulation resistance:	100 MOhm min.

Enviromental

Temperature Classification:	-40/+105/21 days 95% RH
Operating Temperature:	-40°C to 105°C
Solderability:	235°C for 5 seconds
Soldering heat resistance:	SMT: 260°C for 5 seconds

Mechanical

Durability:	Gold finish: 300 operations Tin finish: 50 operations
Insertion force (max.):	Female: 2.0N per contact Link sockets: 4.5N total
Withdrawal force (min.):	Female: 0.2N per contact Link sockets: 0.6N total
Vibration sensitivity:	10-55Hz, 1.5mm, 6 hours duration
Shock severity:	490m/s² (50G) for 11 ms

Ordering Information

Model Number

	R	-		2		E		-	L	-		-	E03

Series

A	Mosaic (CIS)
T	Mosaic (Black CIS)

Patch Type

A	Longframe
B	Bantam

Number of Dual Modules

24	24 Longframe Modules
26	26 Longframe Modules
32	32 Bantam Modules
48	48 Bantam Modules

Panel Height

1	1 Rack Unit	1.75", 44mm
15	1.5 Rack Unit	2.62", 66mm
2	2 Rack Unit	3.50", 89mm

Installed Programming, *all Modules Field Reconfigurable*

Standard Longframe or Bantam Module	
FN	Full Normals
FNBG	Full Normals, Bussed Grounds
FNBGA	Full Normals, Bussed Grounds, Row A
FNBGB	Full Normals, Bussed Grounds, Row B
FNVG	Full Normals, Vertical Grounds
HN	Half Normals
HNBG	Half Normals, Bussed Grounds
HNBGA	Half Normals, Bussed Grounds, Row A
HNBGB	Half Normals, Bussed Grounds, Row B
HNVG	Half Normals, Vertical Grounds
NN	No Normals
NNBG	No Normals, Bussed Grounds
NNBGA	No Normals, Bussed Grounds, Row A
NNBGB	No Normals, Bussed Grounds, Row B
NNVG	No Normals, Vertical Grounds
Switching Ground Longframe or Bantam Module	
FNSG	Full Normals, Switching Grounds
HNSG	Half Normals, Switching Grounds
NNSG	No Normals, Switching Grounds

Mating Connector & Programming Link Kits

Model	Description
Longframe	
MK224P-E03C	EDAC 3Pin Primaries Kit for Longframe 2x24 Patchbay, Crimp
MK226P-E03C	EDAC 3Pin Primaries Kit for Longframe 2x26 Patchbay, Crimp
Bantam	
MK232P-E03C	EDAC 3Pin Primaries Kit for Bantam 2x32 Patchbay, Crimp
MK248P-E03C	EDAC 3Pin Primaries Kit for Bantam 2x48 Patchbay, Crimp
Programming Links	
AR-PL25	Programming Links, package of 25
AR-PL50	Programming Links, package of 50
AR-PL100	Programming Links, package of 100