

# A360

Personal Mixer

## A360 DESIGN GUIDE

Aviom's new A360 Personal Mixer brings a number of major advances in personal mixing for performing and recording musicians. For more than a decade, Aviom has set the standard for personal mixing, delivering a unique combination of truly useful features and ease of use for both the technical and non-technical musician. The A360 raises the bar for features while maintaining the intuitive ease of use Aviom is known for, giving musicians unprecedented control and clarity in their monitor mixes.

This design reference provides guidance on designing Aviom personal mixing systems with the new A360.



Please contact Aviom Customer Service at +1 610-738-9005 extension 2 for help with your specific needs.



# A360

Personal Mixer

## BUILDING A SYSTEM

The A360 is backwards-compatible with legacy Pro16 gear such as the AN-16/i, A-16D Pro, and A-16II, and it may be integrated into existing Aviom Personal Mixing Systems. This section details the similarities and differences with legacy hardware and systems and shows how to set up A360 Personal Mixers in a variety of systems.

### A360 Product Overview

The A360 Personal Mixer utilizes a 36-channel mix engine to give performers more control over their monitor mix, without introducing unwarranted complexity. The 36-channel mix engine supports 16 mono or stereo standard

mix channels, a mono or stereo Dual Profile Channel™, and mono or stereo One-Touch Ambience™. Optimized for in-ear monitors and headphones (but fully compatible with wedge monitors), the A360 adds enhanced



**Standard mix channels** (each button can host a mono or stereo signal)

**Dual Profile Channel** (additional mix channel or channel mirror)



channel-level and master controls to help users improve the naturalness, fidelity, and consistency of their monitor mix.

### Technology Overview

The A360 is a Pro16® Series device, and it is fully compatible with legacy Pro16 Series hardware. However, to provide the flexibility of additional mix channels, the A360 uses an expanded version of the Pro16 A-Net® packet, called Pro16e™.

# PRO 16<sup>e</sup>

Like standard Pro16 A-Net, Pro16e is a point-to-point digital audio protocol; it is not a full network like Pro64® A-Net.

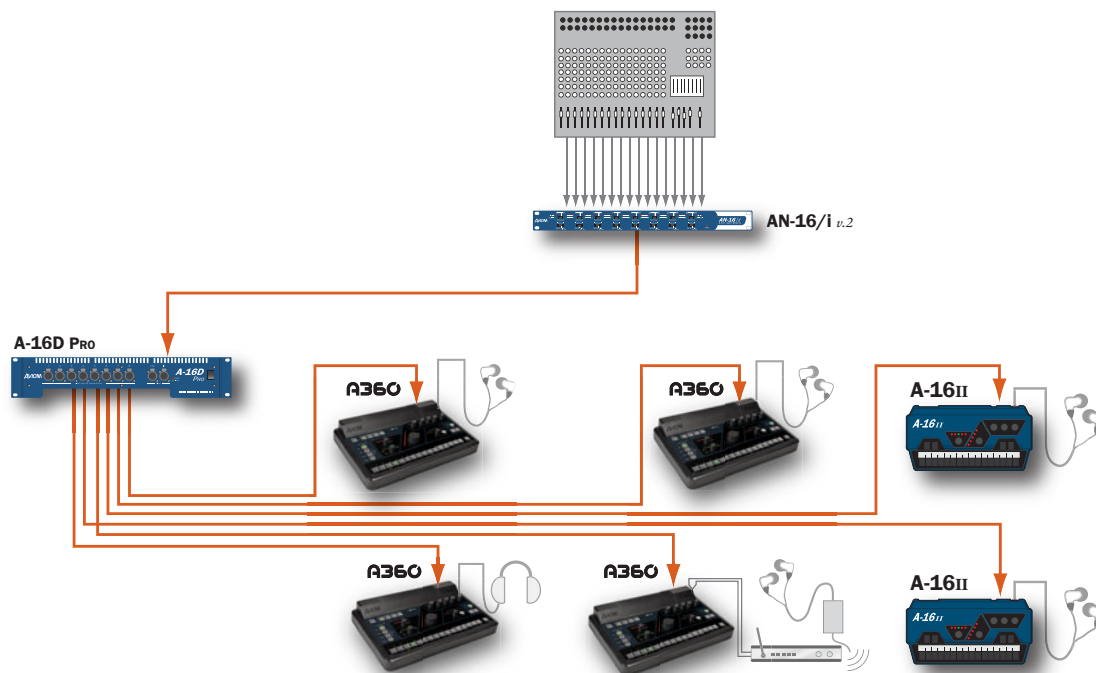
The Pro16e packet supports up to 64 channels (48kHz, 24 bits). Maximum Cat-5e cable length

for Pro16e is 400 feet (100 feet less than standard Pro16).

All devices capable of generating or utilizing a Pro16e data stream are labeled with the Pro16e logo. All standard Pro16 devices are capable of receiving and retransmitting a Pro16e packet (but can utilize only the first 16 channels). For example, a standard A-16D Pro is used in an A360 personal mixing system and can supply power and Pro16e audio data to the A360 Personal Mixers.

### A360 Mode Selection

In order to streamline integration of A360s into existing Aviom personal mixing systems and to provide flexibility in how systems utilize input hardware, the A360 supports two modes of operation, selected with a rear-panel slide switch.



In systems with 16 or fewer channels, A360s can be connected to existing hardware in the same manner as A-16IIs are connected. A360s and A-16IIs can be used together seamlessly.

### PRO16 MODE

In systems with 16 or fewer channels, the A360 will typically be set to **PRO16** mode. In this mode, channels are laid out on the A360 as on the A-16II, with stereo channels using two adjacent buttons rather than being placed under a single button. The Dual Profile Channel on the A360 may be used to mirror any channel or channel pair. Ambience must use the onboard microphone. All mixing functions, including full stereo pan-spread control for stereo pairs, are available in Pro16 mode.

For systems utilizing Pro16 mode on the A360, system design and setup are the same as for systems with A-16II and A-16R Personal Mixers, and all three models of mixers may be used in any combination.

### PRO16e MODES

For systems with more than 16 channels, the mode switch should be set either to **DEFAULT** or to **CUSTOM**. In these switch positions, the A360 will be looking for a Pro16e packet and will place stereo channels under a single button.

In **DEFAULT** mode, channels from the network are assigned to A360 buttons according to the default rules (see “Pro16e Channel Routing” below for detailed information). Only the onboard microphone may be used for ambience. The Dual Profile Channel may mirror one of the standard mix channels but may not be used as a 17th mix channel.

In **CUSTOM** mode, any network channel(s) can be assigned to any mixer button. Ambience may use the onboard mic or audio from the network, and the Dual Profile Channel may be used to mirror one of the 16 standard mix channels or as a 17th stereo or mono mix channel.

### AN ADDITIONAL NOTE

Pro16e input modules generate Pro16e packets regardless of the channel count of the system. Thus it is possible to have a Pro16e system with 16 or fewer channels (one AN-16/i v.2 Input Module as the front end).

In such systems, A360s may be set to either **PRO16** mode or one of the Pro16e modes. Using one of the Pro16e modes places stereo channels under a single button and allows users to customize their channel layout and use network audio for ambience (in **CUSTOM** mode).

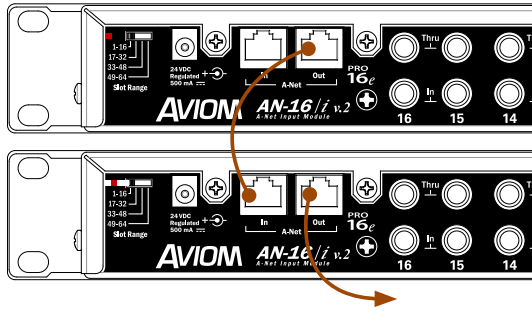
### Connecting A360s

Regardless of the mode a given A360 is utilizing and regardless of whether the system includes A-16IIs or is comprised entirely of A360s, there are no special considerations in connecting A360s. Because Pro16 devices such as the A-16II can receive a Pro16e packet but will use only the first 16 channels (as if it were a standard Pro16 stream), A360s and A-16IIs can use the same A-Net stream and be fed by the same A-Net Distributors.

Note that the A360 does not have an A-Net Out jack and thus cannot be in the middle of a daisy chain; most systems will utilize an A-16D Pro A-Net Distributor for supplying power and audio to the A360 Personal Mixers.

### Getting More Than 16 Channels into the System

The new AN-16/i v.2 Input Module is used to expand the Pro16 packet to include more channels; up to four input modules may be used for up to 64 channels in the network stream. Each A360 may select its mix channels from the complete pool of 64 channels in the network.



Daisy-chaining AN-16/i v.2 Input Modules allows more channels to be sent to A360 Personal Mixers.

The A360 must be set to **CUSTOM** to use non-default channels.

To expand the Pro16 packet, simply connect the A-Net Out of the first input module to the A-Net In of the second. This daisy chain may be continued for up to four input modules and 64 channels.

The AN-16/i v.2 has a rear-panel switch for assigning the channel range of each device (1-16, 17-32, 33-48, or 49-64). The order in which the input modules are connected is irrelevant.

#### COMBINING LEGACY INPUT HARDWARE

The **FIRST** input device in this daisy chain of input devices may be a legacy Pro16 input module (e.g., original AN-16/i or AN-16/i-M) or console card (e.g., Aviom's Y1 card or a partner card). These channels are assigned to channels 1-16 automatically, and other input modules in the system must be set to 17-32, 33-48, and 49-64.

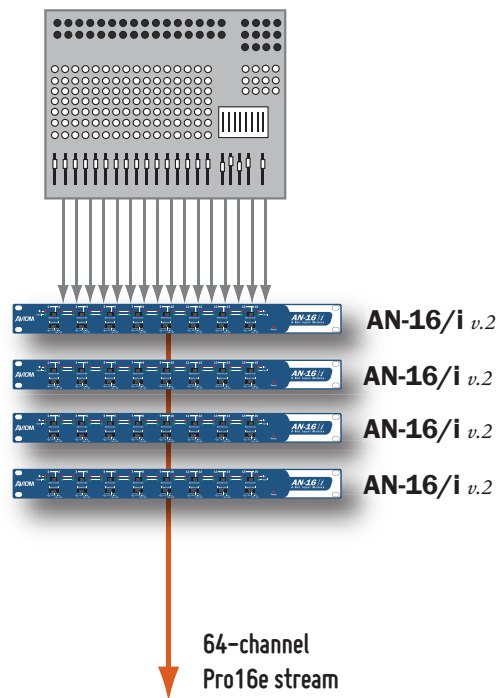
At this time, there is no ability to connect multiple legacy Pro16 input devices, including console cards, for expanded channel count. Thus, systems with digital consoles may use a single Pro16 A-Net card but must use analog outputs

from the console to connect to AN-16/i v.2 Input Modules for additional channels and a Pro16e stream.

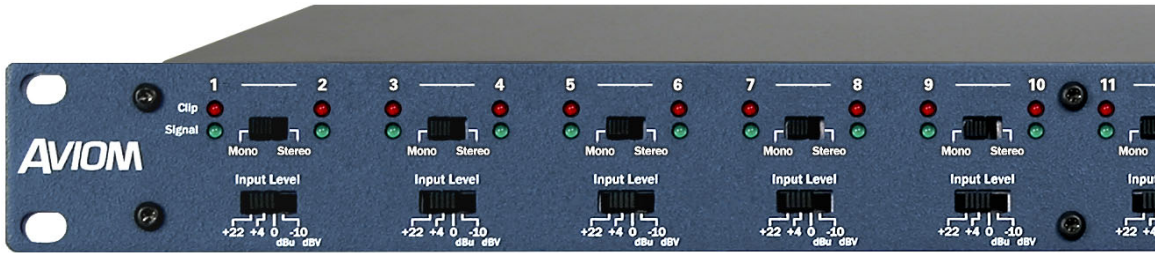
Refer to the Appendix for illustrations of a range of digital consoles connected to Aviom personal mixing systems with expanded channel counts.

#### Pro16e Channel Routing

Because the A-16II and A360 (in Pro16e mode, with a Pro16e front end) map stereo channels to mixer buttons differently, more sophisti-



Up to four AN-16/i v.2 Input Modules can be daisy chained to form a 64-channel Pro16e A-Net stream. A360 Personal Mixers can select their mix channels from this stream. Note that the first device in the chain of input modules may be a legacy Pro16 input module or console card.



The AN-16/i v.2 input channels can be thought of in stereo channel pairs. The A360 default routing uses odd numbered input channels for left or mono and even numbered input channels for the right side of a stereo channel.

cated algorithms are required for managing the default routing of Pro16e channels from input modules to personal mixers, particularly to avoid unexpected results when channels are switched from stereo to mono (or vice versa) at an input module.

Because the A360 and the A-16II behave identically in Pro16 systems with 16 or fewer channels, this section applies only to systems utilizing a Pro16e packet.

### STEREO INPUT CHANNELS

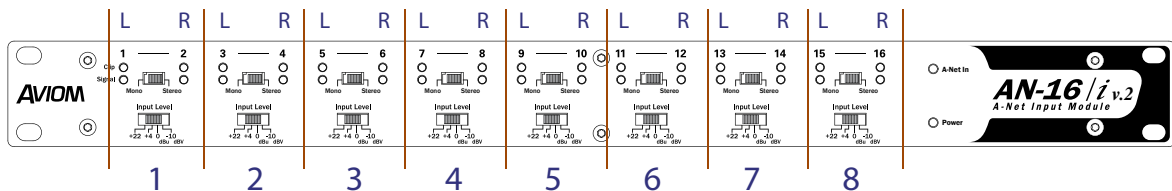
In Pro16e systems using default channels on A360s, input module channels should generally be viewed as channel pairs, similar to a stereo channel on a console. Thus channel 1 and channel 2 on an input module are the left and right halves of what will become channel 1 on an A360 Personal Mixer. (Channels 3 and 4 map to A360 channel button 2, 5 and 6 to A360 channel button 3, and so on.)

If the channels are stereo linked on the input module, then both channels appear on the A360 as a stereo pair, using one mix channel button.

If the channels are NOT stereo linked, then only the odd input module channel is utilized by the A360, and the even input module channel is ignored (but may be used by A-16IIs in the system or by A360s in Pro16 mode).

Thus for many Pro16e systems, the AN-16/i v.2 is better viewed as an input module with 8 stereo input channels rather than just 16 channels.

This approach ensures predictable results and avoids any unexpected channel reassignment on the Personal Mixer as a result of a stereo link switch being changed on an input module. The table on the following page shows the default channel routing for a Pro16e system.



The AN-16/i v.2 input channels can be thought of in stereo channel pairs. The A360 default routing uses odd numbered input channels for left or mono and even numbered input channels for the right side of a stereo channel.

AN-16/i v.2		Default A360 Channel	
Bank	Channel	If Stereo	If Mono
1-16	1	1 (left)	1
	2	1 (right)	Ignored
	3	2 (left)	2
	4	2 (right)	Ignored
	5	3 (left)	3
	6	3 (right)	Ignored
	7	4 (left)	4
	8	4 (right)	Ignored
	9	5 (left)	5
	10	5 (right)	Ignored
	11	6 (left)	6
	12	6 (right)	Ignored
	13	7 (left)	7
	14	7 (right)	Ignored
	15	8 (left)	8
	16	8 (right)	Ignored
17-32	1	9 (left)	9
	2	9 (right)	Ignored
	3	10 (left)	10
	4	10 (right)	Ignored
	5	11 (left)	11
	6	11 (right)	Ignored
	7	12 (left)	12
	8	12 (right)	Ignored
	9	13 (left)	13
	10	13 (right)	Ignored
	11	14 (left)	14
	12	14 (right)	Ignored
	13	15 (left)	15
	14	15 (right)	Ignored
	15	16 (left)	16
	16	16 (right)	Ignored

This table shows the mapping of input module channels to A360 mix channels in Default Mode. Note that even numbered mono input channels are not used in this mode.

## CUSTOM MODE

The A360 also provides the ability to assign channels from the network to any button on each mixer independently. Ultimately, users will have the option to do this from either a computer or from the front panel of the A360. Initially, a computer will be required, utilizing Aviom's free **A360 CHANNEL MANAGER™** application.

In **CUSTOM MODE** as in **DEFAULT MODE**, stereo channels are placed under a single button on A360s. However, mono channels in even numbered input module channels may be assigned to A360 buttons.

**CUSTOM MODE** gives designers and users the most flexibility, allowing each A360 to have its own selection of channels and its own arrangement of channels. This is particularly useful in larger ensembles where different musicians require control of different channels.

The Pro16e data stream supports up to 64 channels, and **CUSTOM MODE** allows each A360 in the system to be assigned a unique set of channels for the 16 mono or stereo standard mix channels, the mono or stereo **DUAL PROFILE CHANNEL** (which may also be set to mirror one of the standard mix channels), and ambience.

The table on the following page shows a sample patch list for a larger system.



Mixer Channel	Singers' A360s	Horns' A360s	Backline A360s
1	Lead Vocal	Lead Vocal	Lead Vocal
2	Vocal 2	Vocals Mix (stereo)	Vocals Mix (stereo)
3	Vocal 3	Horn 1	Gtr 1 (stereo)
4	Vocal 4	Horn 2	Gtr 2 (stereo)
5	Vocal 5	Horn 3	Keys 1 (stereo)
6	Vocal 6	Horn 4	Keys 2 (stereo)
7	Gtr 1 (stereo)	Horn 5	Horns Mix (stereo)
8	Gtr 2 (stereo)	Gtr 1 (stereo)	Kick
9	Keys 1 (stereo)	Gtr 2 (stereo)	Snare
10	Keys 2 (stereo)	Keys 1 (stereo)	Hi Hat
11	Horns Mix (stereo)	Keys 2 (stereo)	Drums OH (stereo)
12	Drums Mix (stereo)	Drums Mix (stereo)	Bass
13	Bass	Bass	Tracks/Loops (stereo)
14	Tracks/Loops (stereo)	Tracks/Loops (stereo)	Click
15			
16			

This table shows a sample channel mapping for a larger ensemble utilizing the A360's ability to select its mix channels from all of the channels available in the network.

### Combining A360s in Systems With A-16IIs and A-16Rs

The A360 was designed to be fully compatible with existing Aviom personal mixing systems, allowing existing users to upgrade some or all of their Aviom Personal Mixers without having to start over with all new gear.

#### SYSTEMS WITH 16 OR FEWER CHANNELS

In low-channel-count systems, A360s can simply be added to the system or swapped in for an older Aviom Personal Mixer. Simply connect a Cat-5e cable to the existing A-Net Distributor and to the A360. Note that the A360 cannot be in the middle of a daisy chain.

#### SYSTEMS WITH MORE CHANNELS

In systems with more than 16 channels and both A360 and A-16II or A-16R Personal Mixers, some planning for input patching must be allowed for.

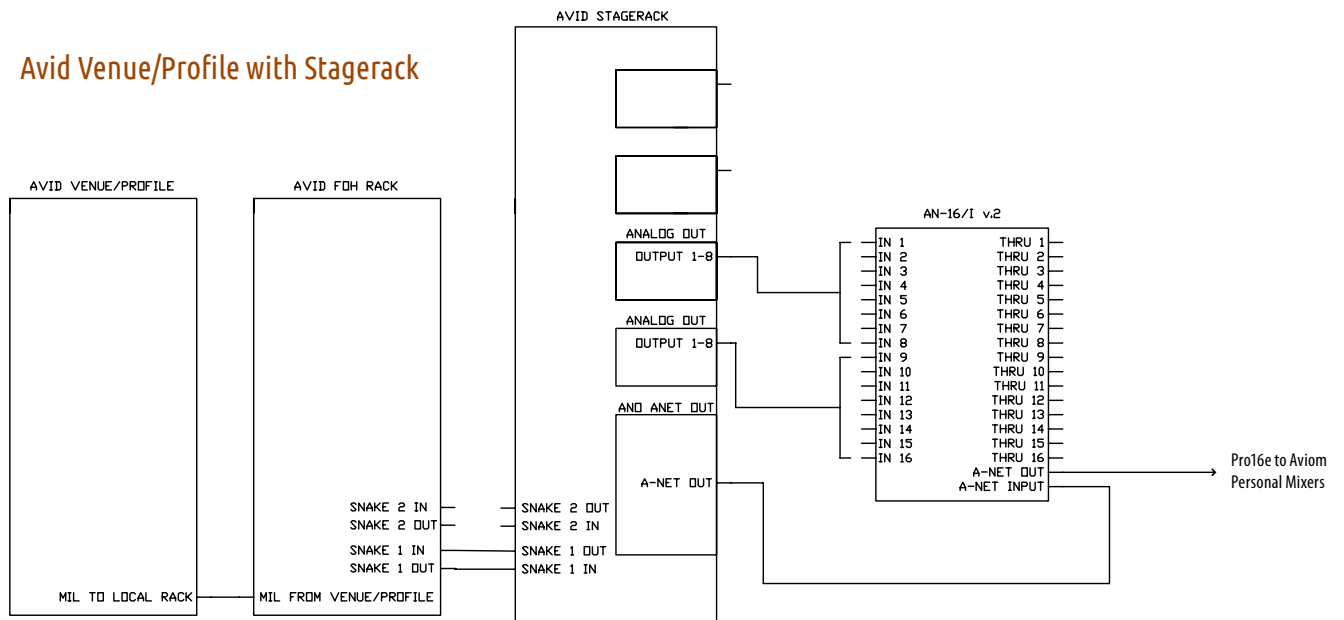
Because the A-16II and A-16R Personal Mixers can use only the first 16 channels in the system, all channels required by these mixers must be connected, in the desired order, to the first input module or console card.

All other channels—those channels added to the monitoring feeds for the benefit of the A360 users—will be patched to the AN-16/i v.2 Input Modules set to one of the higher channel banks (17-32, 33-48, or 49-64). These channels will be ignored by the A-16IIs and A-16Rs in the system.

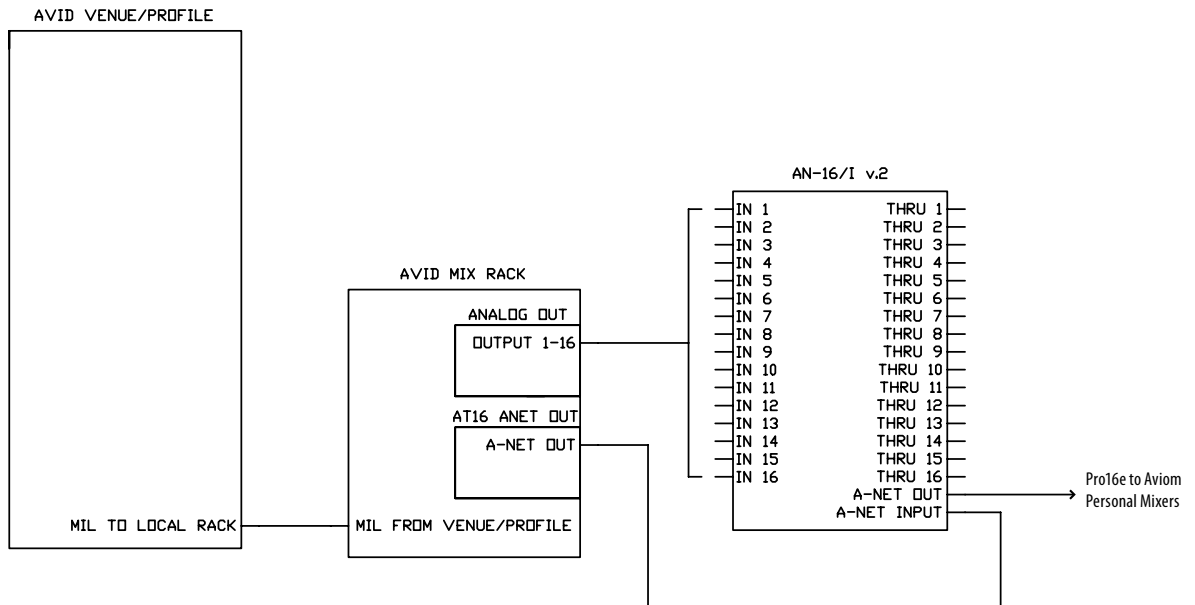
In most cases, setting the A360s in these systems to **CUSTOM** will help rearrange the channels in a way that is most useful for A360 users.

The following diagrams show Pro16e systems connected to a range of digital mixing consoles. The systems shown here support up to 32 channels; most could be expanded further to provide up to 48 or 64 channels to the Aviom Pro16e A-Net system and the A360 Personal Mixers. All of the systems shown here can also have A-16II or A-16R Personal Mixers attached, using the first 16 channels in the Pro16e system.

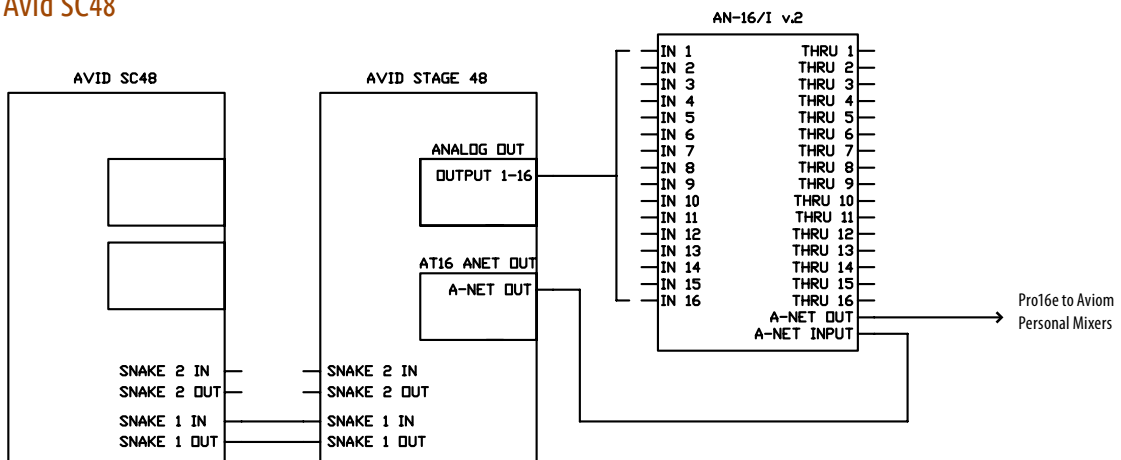
### Avid Venue/Profile with Stagerack



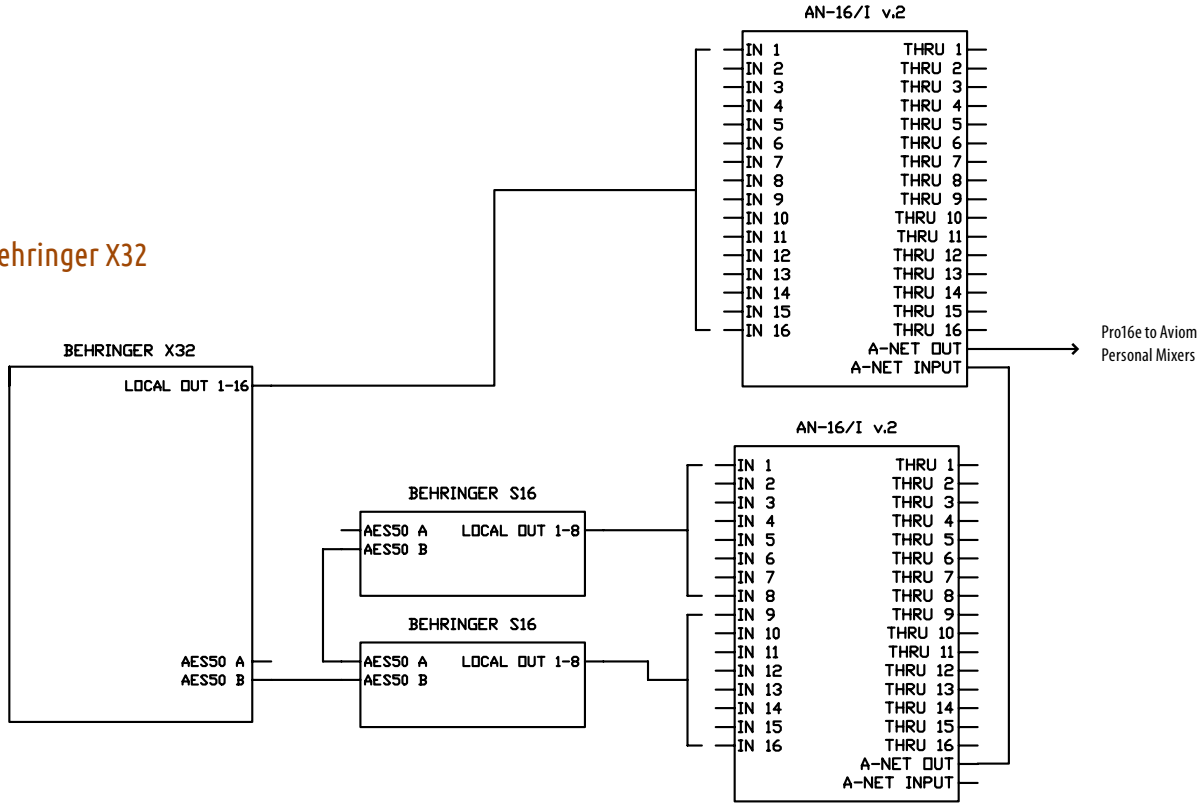
## Avid Venue/Profile with Mix Rack



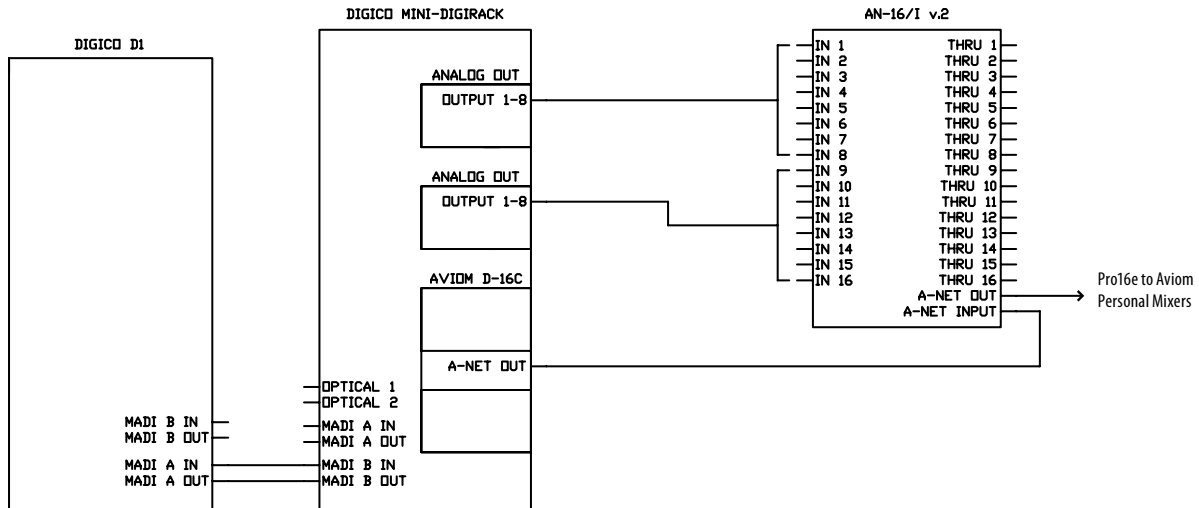
## Avid SC48



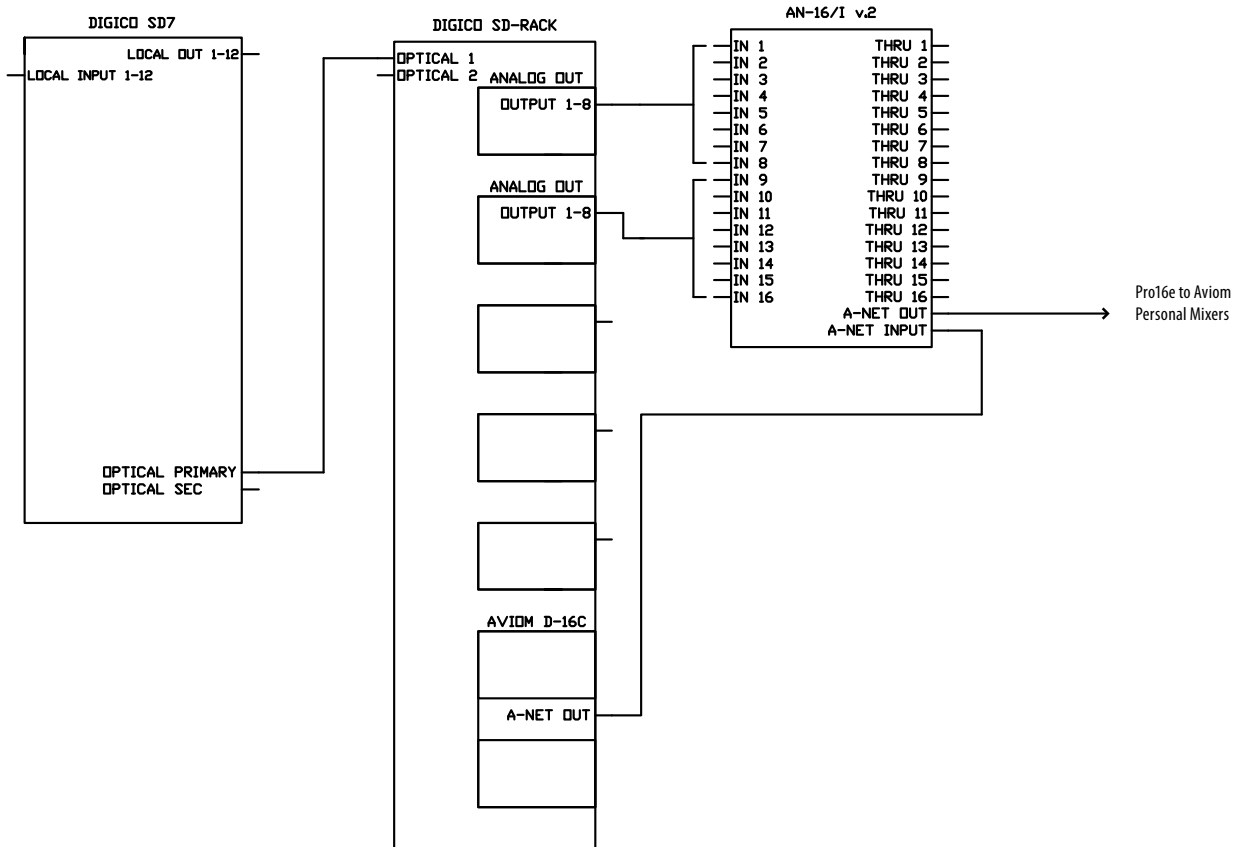
## Behringer X32



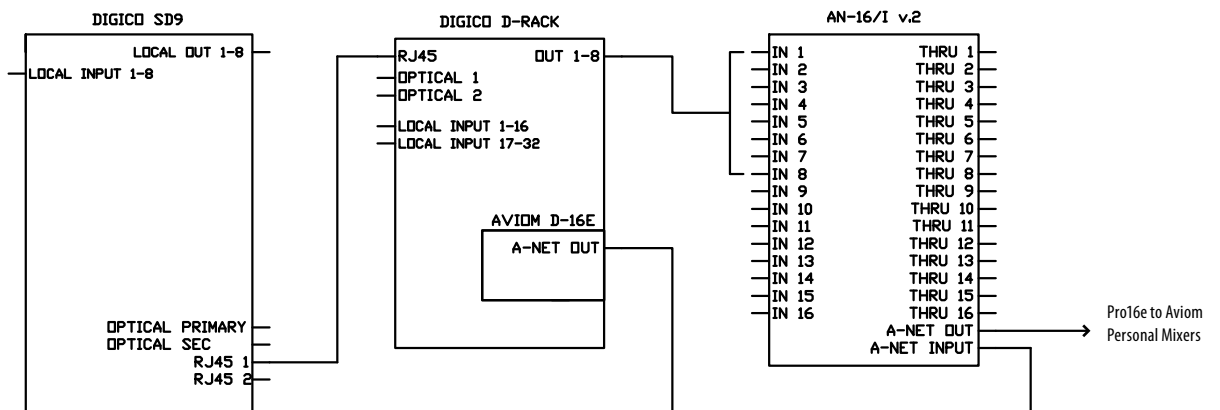
## DiGiCo D1



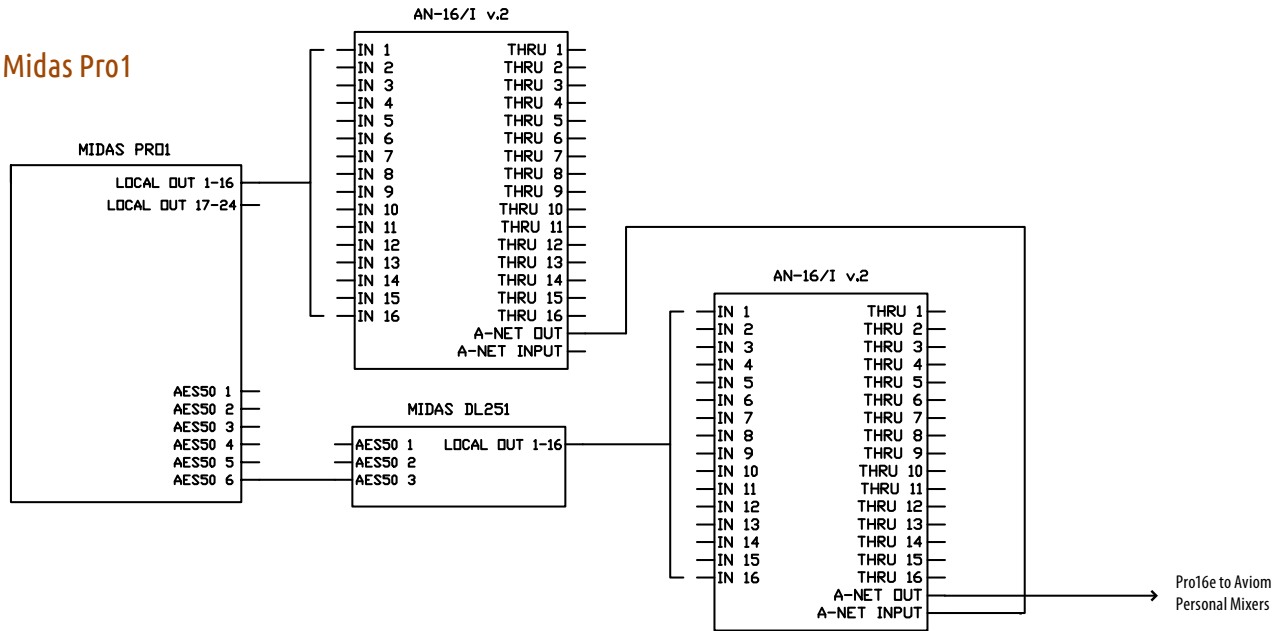
**DiGiCo SD7**



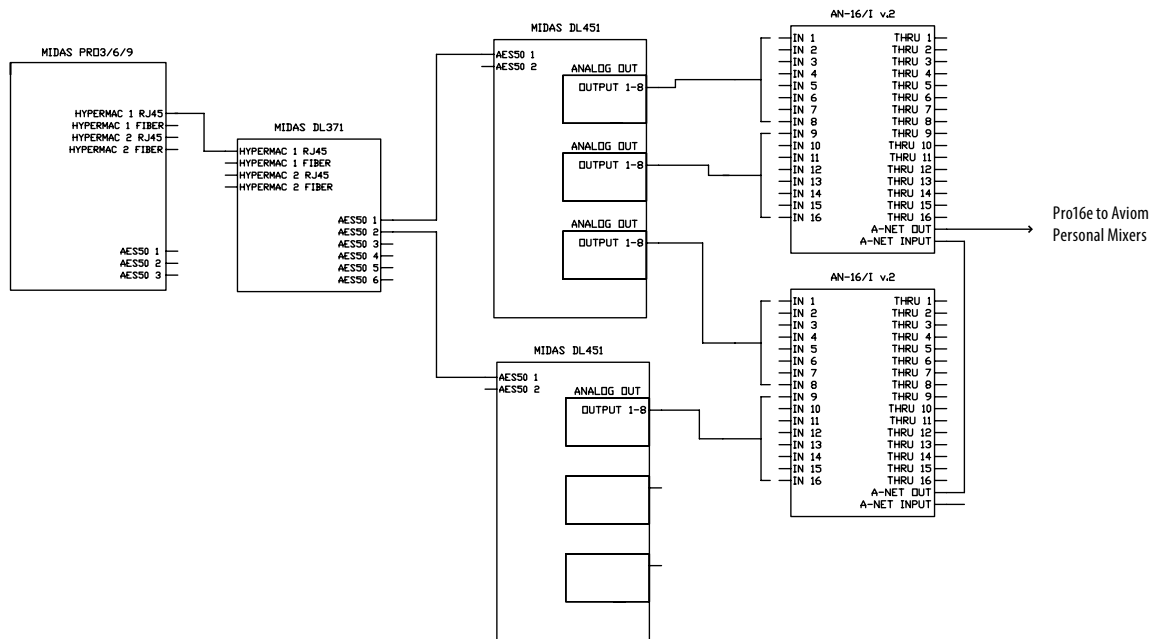
**DiGiCo SD9**



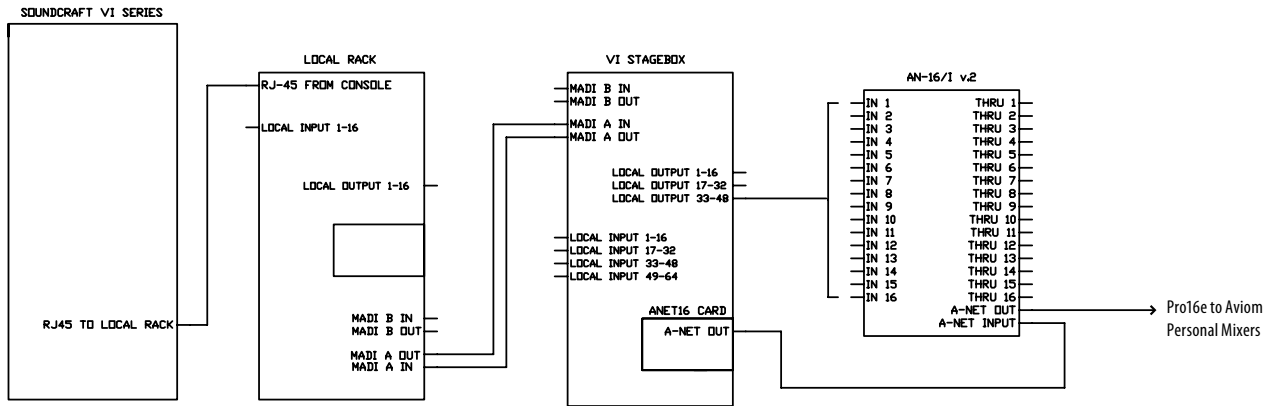
## Midas Pro1



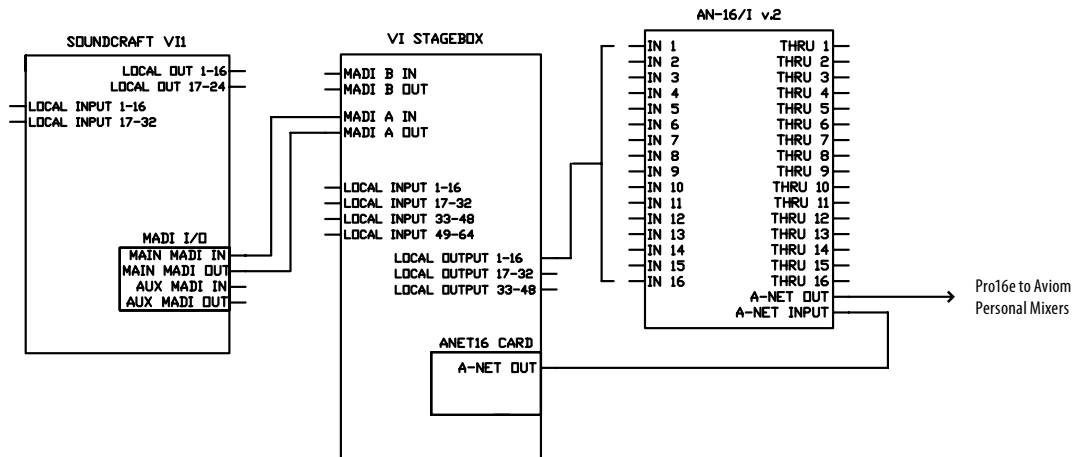
## Midas Pro3/6/9



## Soundcraft Vi Series

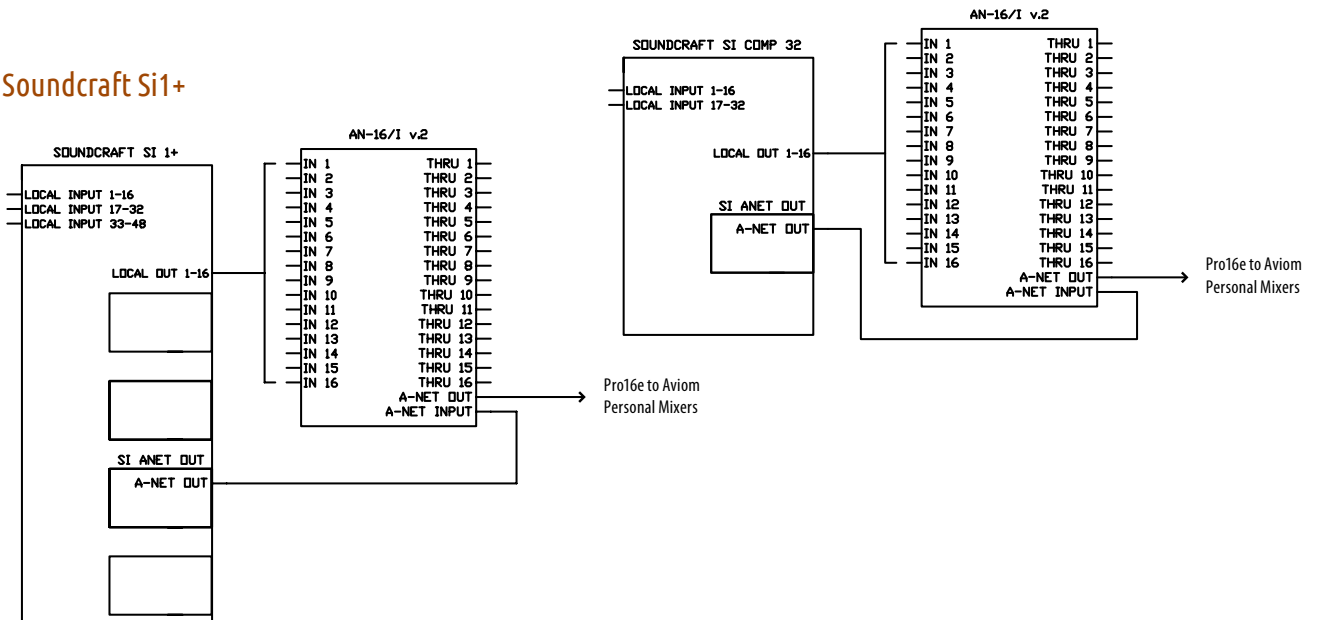


## Soundcraft Vi1

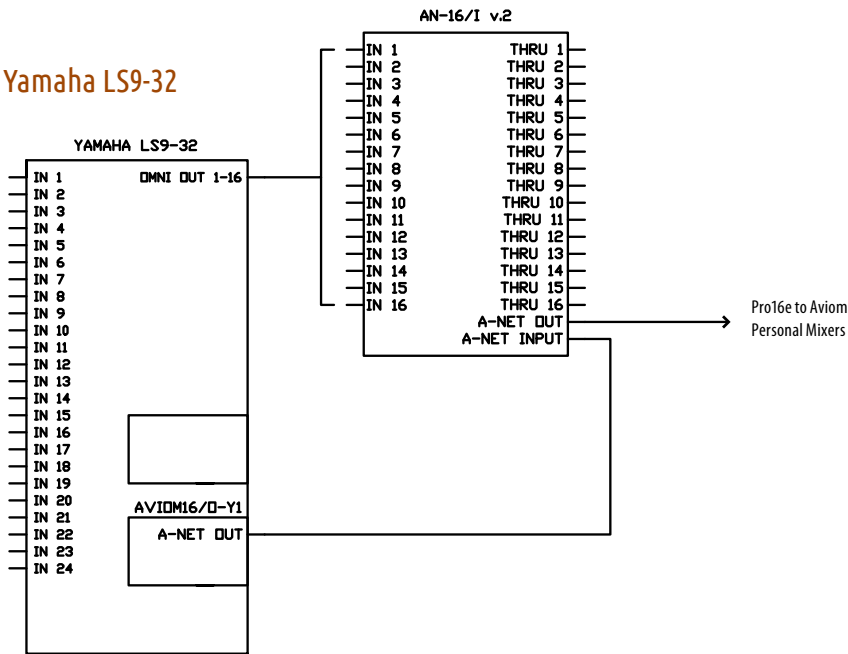


## Soundcraft Si Comp32

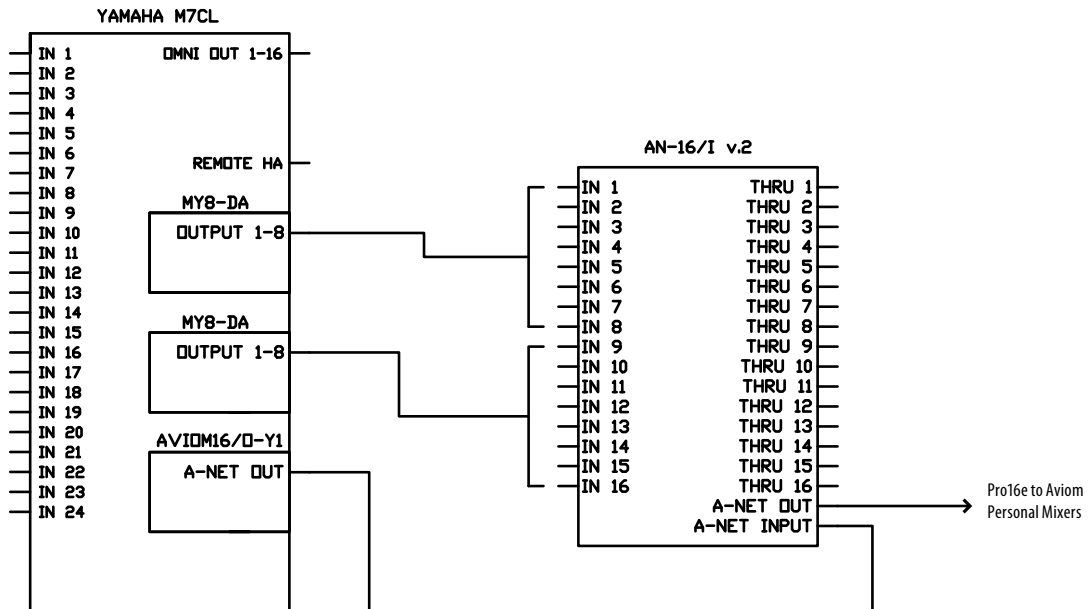
## Soundcraft Si1+



## Yamaha LS9-32

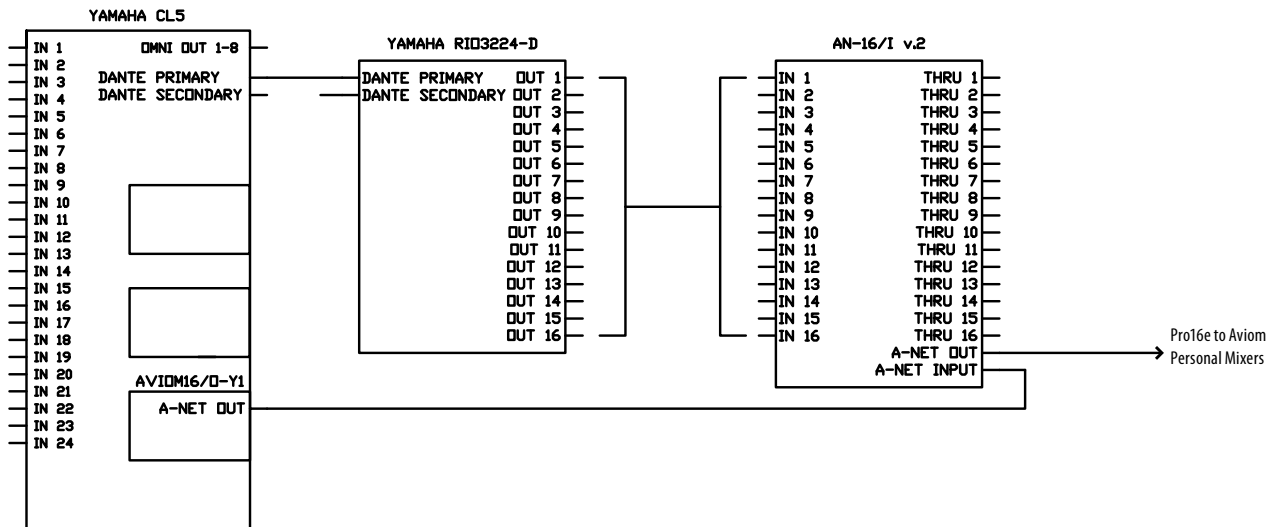


## Yamaha M7CL





Yamaha CL5





Aviom's A360 Personal Mixer brings new levels of control and customization to personal mixing and is the perfect solution for controlling musicians' monitors on stage or in the studio. Ideal for use with in-ear monitors and headphones, the A360 delivers breakthrough features for more precise mix control and more musical monitoring, while also preserving the simplicity required for use while performing.

The A360 includes an advanced 36-channel mix engine which can be used to mix up to 16 mono or stereo standard channels plus mono or stereo ambience and the Dual Profile Channel™. Each A360 in a system may use the default channels, or audio channels can be selected and assigned individually for each personal mixer, drawing from a network pool of up to 64 channels.

Each A360 mix channel may be adjusted for volume, tone, and reverb. The A360 also includes the innovative Stereo Placement pan-spread control that allows the width of a stereo channel's image to be controlled independent of its left-right placement in the stereo field, significantly improving the user experience with in-ear monitors and headphones.

The A360's seventeenth mix channel—the Dual Profile Channel™—provides users with instant access to two independent combinations of channel volume, tone, reverb, and stereo placement for a favorite channel. The Dual Profile Channel may be set to mirror one of the 16 standard mix channels or may be used for additional mix content.

Ambience can be added to the mix either using the convenient onboard ambient microphone or by using network audio channels. Regardless of the source of the audio, the A360 One-Touch Ambience™ streamlines control of ambience levels during performance, allowing musicians to add or remove ambience with the single touch of a button.

### PRODUCT HIGHLIGHTS

- Advanced 36-channel mix engine
- Customizable channel selection from a 64-channel network pool
- 16 standard mono or stereo mix channels plus customizable Dual Profile Channel™
- Enhanced Stereo Placement controls for improved sonic clarity
- Per-channel volume, tone, reverb, and pan-spread
- Three-band master tone control optimized for in-ear monitors
- One-Touch Ambience™ control using onboard mic or network audio channels
- Four Instant Mix Recall™ presets—plus 16 standard mix presets
- USB for mixer profiles and mix settings
- 1/4" and 1/8" TRS Stereo Mix Out
- XLR Mono Mix Out with dedicated volume control
- Seamless integration with existing Aviom personal mixing systems

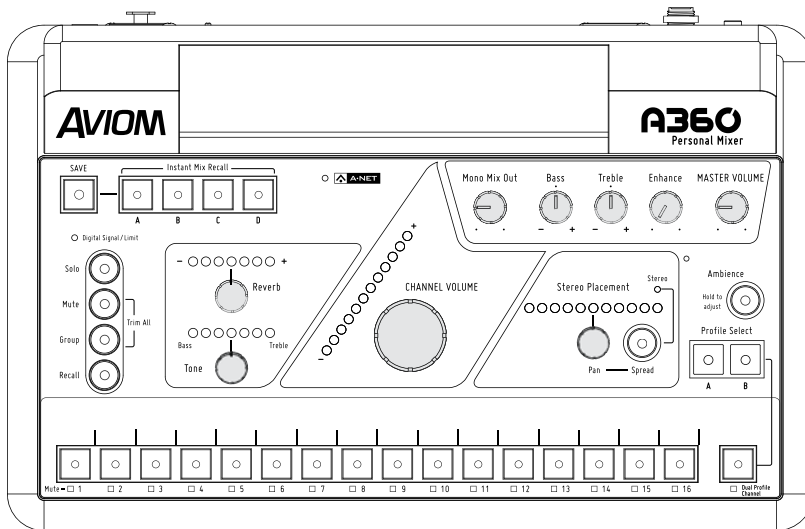
Each A360 can store up to twenty mix snapshots—16 saved in the channel button locations plus another four assigned to dedicated Instant Mix Recall buttons.

The master output section includes Bass and Treble tone controls, plus the unique Enhance control designed to provide more presence for users of in-ear monitors. In addition to the main 1/4-inch and 1/8-inch stereo outputs, a separate Mono Mix Out control feeds a rear-panel XLR jack, perfect for connecting to a subwoofer, shaker, or mono wedge monitor.

The A360 user interface is designed to meet the needs of performing and recording musicians. All mixing features are instantly available—no menus to navigate, no complex programming, no computer required—so customizing and

adjusting a mix is fast and intuitive, even in the middle of performing.

Audio is delivered to the A360 using Aviom’s A-Net® digital audio protocol. A-Net ensures that audio signals are delivered in real time and provides for simple plug-and-play setup without addressing. The A360 is compatible with existing Pro16 Series devices and monitor systems. Additionally, the A360 can use an enhanced version of the protocol, Pro16e™, which supports expanded channel capacity (up to 64 channels) in the Pro16 audio stream.



### TOP PANEL FEATURES

- Channel Volume
- Channel Tone
- Channel Reverb
- Channel Stereo Placement
- Dual Profile Channel™
- Instant Mix Recalls
- One-Touch Ambience™
- Group, Recall, Solo, and Mute
- Trim All
- Digital Signal/Limit
- Master Bass, Treble, and Enhance
- Master Volume
- Mono Mix Out

### REAR PANEL FEATURES

- Stereo Mix Out (headphone/line-level, 1/4" and 1/8" TRS)
- Mono Mix Out
- USB storage
- Mode switch
- A-Net In



### A360 PERSONAL MIXER SPECIFICATIONS

<b>Audio Outputs</b>	1/4" TRS stereo, headphone or line level; 1/8" TRS stereo, headphone or line level; XLR balanced mono, line level	<b>Output Impedance</b>	32 ohms
<b>Stereo Mix Outputs, Headphone/Line</b>	Tip: Audio Left; Ring: Audio Right; Sleeve: Ground	<b>Freq. Response</b>	2-22kHz +0.2dB/-3dB
<b>Mono Mix Output</b>	Pin 2: Hot, Pin 3: Cold; Pin 1: Ground	<b>THD +N</b>	< 0.003%
<b>A-Net I/O</b>	1 A-Net In, EtherCon RJ45 connector; Supports Pro16 and Pro16e	<b>Signal to Noise (unweighted)</b>	-106dB (measured with zero data into all channels)
<b>D/A Conversion</b>	44.1/48kHz, 24-bit	<b>Latency</b>	0.880 msec (measured from analog input to analog output)
<b>Stereo Operation</b>	Stereo Link, per channel pair; Set at the input module; Variable pan per mono channel or pan/spread per stereo channel pair	<b>A-Net Pro16e</b>	Uses unshielded Cat-5e UTP (or better) cable; Maximum 400 ft (122 m) between devices; Supports Power Over A-Net
<b>USB Storage</b>	Save/load mix configuration data, mix presets; firmware updates	<b>Power Supply</b>	External, DC, universal switching type Input Voltage 100-240 volts, 50/60Hz Output Voltage 24 VDC, 0.5 amp Plug Size 2 mm
<b>Headphone Output</b>	1.0 watt at 100 Ohms (Line/Headphone output)	<b>Dimensions</b>	11" (279.4 mm) wide x 6.9" (175.26 mm) deep; 1.835" (46.61 mm) high



AN-16/i v.2 PRODUCT DATA SHEET



**Product Highlights**

- Converts 16 line-level analog audio channels to a Pro16e A-Net digital stream
- A-Net In for generating Pro16e A-Net for A360 Personal Mixers
- 16 balanced line-level inputs
- 16 balanced line-level Thru jacks
- 48kHz, 24-bit A/D converters
- Four-position gain sensitivity switch per channel pair
- Stereo Link per channel pair

The AN-16/i v.2 Input Module provides sixteen channels of analog-to-digital conversion as the head end for Aviom’s industry standard personal mixing system and modular digital snake products. The module converts sixteen line-level analog audio channels into uncompressed 24-bit, 48kHz digital audio data.

The AN-16/i v.2 includes an A-Net® Input jack for connecting up to three additional Pro16® Series input devices. The AN-16/i v.2 merges its analog inputs with the incoming A-Net stream, creating the expanded Pro16e digital audio stream utilized by Aviom’s A360 Personal Mixer. The digital audio data is output on standard Cat-5e cables.

The AN-16/i v.2 front panel has eight four-position input level/gain sensitivity switches, stereo channel link switches for every channel pair, and per-channel

signal present and clip LEDs. Digital network connections on the rear panel include one A-Net In jack and one A-Net Out jack.

The rear panel of the AN-16/i v.2 also features 16 analog audio inputs with balanced ¼” TRS jacks. An audio Thru jack for each input allows the AN-16/i v.2 to be inserted seamlessly into an existing audio signal path. The AN-16/i v.2 can be used with any line-level analog audio signal such as console direct outs, inserts, or aux sends.

The AN-16/i v.2 is equally at home with Aviom’s modular Pro16 digital snake and audio distribution system products, supporting a range of flexible configurations including: 16x0, 32x0, 48x0, 64x0, 16x16, 32x16, 32x32, and 48x16. All configurations support an unlimited number of digital splits, with no loss in audio quality.

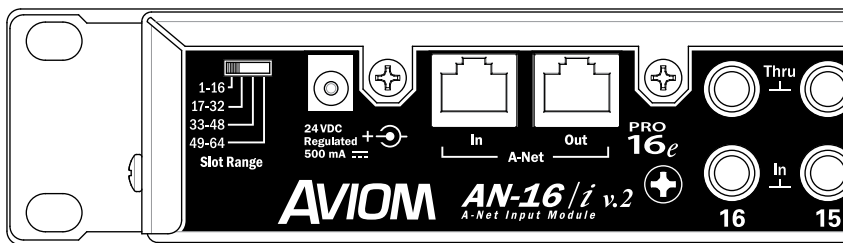
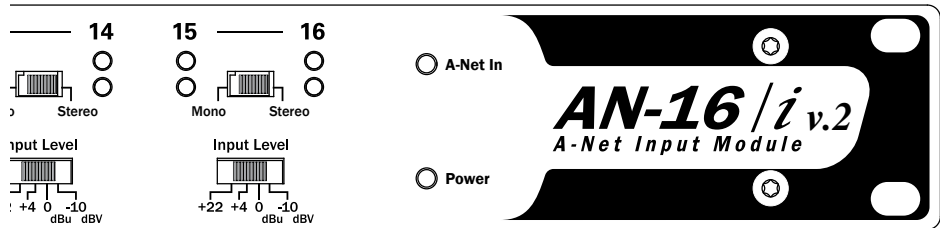
**AN-16/i v.2 INPUT MODULE SPECIFICATIONS**

<b>Audio Inputs</b>	16, balanced line-level
<b>TRS Inputs</b>	Tip: Audio +; Ring: Audio -; Sleeve: Ground
<b>TRS Thru</b>	Tip: Audio +; Ring: Audio -; Sleeve: Ground
<b>A/D Conversion</b>	48kHz, 24-bit
<b>Input Level / Gain Settings</b>	+22dBu, +4dBu, 0dBu, -10dBV 4-position gain switch, per channel pair
<b>Metering</b>	Two LEDs per channel; green: Signal Present, red: Clip;
<b>Stereo Operation</b>	Stereo link, per channel pair; Two-position switch (Mono, Stereo)
<b>Max. Input Level</b>	+22dBu
<b>Input Impedance</b>	17.8k ohms
<b>Frequency Response</b>	4Hz-22kHz +0.2dB/-3dB
<b>THD +N</b>	< 0.003%
<b>Crosstalk</b>	-90dB
<b>Signal to Noise (unweighted)</b>	90dB typical, A/D to D/A; Measured from AN-16/i v.2 to AN-16/o Output Module
<b>Bit Error Rate (BER)</b>	10 <sup>-12</sup>

<b>Digital Output</b>	1 A-Net Out; RJ45 connector
<b>Digital Input</b>	1 A-Net In; RJ45 connector
<b>A-Net Pro16e Slots</b>	4-position Slot Range switch assigns the A-Net output to occupy Slots 1-16, 17-32, 33-48, or 49-64
<b>A-Net</b>	Uses unshielded Cat-5e UTP (or better) cable
<b>A-Net Cable Length</b>	400 feet (122 m)
<b>Latency</b>	<0.880 msec (measured from analog input to analog output)
<b>Power Supply Input Voltage</b>	External, DC, universal switching type
<b>Output Voltage</b>	100-240 volts, 50/60Hz, 30VA
<b>Plug Size</b>	18-24 VDC, 0.5 amp 2 mm
<b>Dimensions</b>	19” (482.6 mm) wide x 5.75” (146 mm) deep; 1U high
<b>Weight</b>	6.8 lb. (3.08 kg)
<b>Options</b>	AN-16SBR System Bridge; used to combine up to four A-Net streams for transmission over one Cat-5e cable
<i>All Aviom products are designed and manufactured in the USA.</i>	

**FRONT PANEL FEATURES**

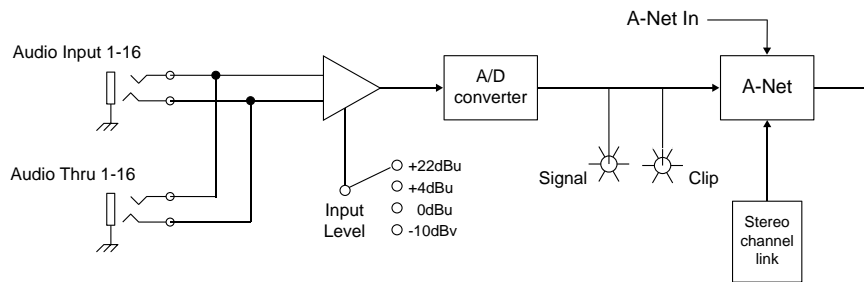
- LED Meters: Signal and Clip
- Stereo Link switch
- Input Level/Gain Sensitivity:  
+22dBu, +4dBu, 0dBu, -10dBV
- Power and A-Net In LEDs



**REAR PANEL FEATURES**

- Line-level input jacks, balanced TRS
- Line-level thru jacks
- A-Net In with 4-position Slot Range selector switch
- A-Net Out
- DC power

**AN-16/i v.2 BLOCK DIAGRAM**



**ARCHITECTURAL SPECIFICATION**

The Aviom AN-16/i v.2 shall provide sixteen channels of line-level audio A/D conversion. Channels shall be transmitted digitally onto an A-Net network. It shall provide full-bandwidth, high-quality audio by employing the Aviom A-Net Pro16e audio transmission protocol. It shall employ 24-bit A/D converters with a 48kHz sampling rate.

It shall have a frequency response from 4Hz to 22kHz, +0/-0.3dB or better, with total harmonic distortion no more than 0.003% at 1kHz with a +4dBu input signal. Maximum input level without clipping shall be +22dBu. Input sensitivity shall be selectable from a front-panel 4-position switch, with gain range settings of +22dBu, +4dBu, 0dBu, and -10dBV. Input impedance shall be 17.8k ohms.

Front panel features shall include LED indicators for Signal and Clip of each channel. Each pair of channels shall have a Stereo Link switch. Front-panel power and A-Net In LEDs shall be provided.

Rear panel features shall include a detachable DC power cord. The unit shall be powered from an external universal power supply (input voltage 100 to 240 VAC; output voltage 18-24 VDC, 0.5 amps). It shall be UL and CE listed.

The rear panel shall have RJ45 connectors for A-Net digital signal input and output connections.

The AN-16/i v.2 model shall employ TRS input jacks for the sixteen line-level inputs. Sixteen TRS jacks shall be provided for audio Thru connections.

Its dimensions shall be 19 inches wide, 9 inches deep, and 1U (1.75 inches) high. Its net weight shall be 6.8 pounds, and its steel chassis shall be finished in blue. The unit shall be Aviom, Inc. model AN-16/i v.2.