A320
Personal Mixer

FAQ

Mixing Features

How many channels is the A320?

The A320 can mix up to 16 mono or stereo sources, and each channel button can host either a mono or stereo source. On the A-16II, a stereo source uses up two channel buttons, so each stereo source means giving up two mono channel buttons. With the A320, you don't have to make that compromise, and you can keep your sources in stereo without giving up any additional space on the mixer. To make that all work, the A320 has a 32-channel mix engine under the hood, because 16 stereo sources require 32 input channels.

If the A320 has 32 channels, can I hear them in two layers of 16 each?

No, there are no layers built into the A320's user interface. Instead, each mix channel button can be assigned a stereo source. So, if all 16 mix channels were stereo sources, you would be mixing (and hearing) 32 total channels.

What mix controls does the A320 have?

Each channel can be adjusted for volume and Stereo Placement™, and the mix output has a volume control and three bands of tone controls. Each channel also can be soloed or muted.

Is Stereo Placement really just another word for panning?

It's similar in that both panning and Stereo Placement refer to the position of a sound in the stereo field. What's different about the A320 (and the A360) is the way it lets you position both mono *and* stereo sources in the stereo field of the mix as a whole. Stereo Placement lets you move both sides of a stereo channel at the same time so you can make a change quickly and get back to performing. This leads to substantially improved clarity and a more natural sounding monitor mix, especially for musicians using in-ears or headphones.

Do the EQ/tone controls work per–channel?

No, the Bass, Treble, and Enhance controls on the A320 are master tone controls that affect the mix output and not individual channels. If you need tone control for each channel, check out the A360 Personal Mixer.

What Is Enhance™?

Enhance is a combination bass/treble EQ circuit designed to increase low-end punch and high-end brilliance in a mix, with just a single control. Enhance is designed specifically for in-ear monitors, but it can make a big difference with headphones and even a wedge. The best way to experience Enhance is to make a basic mix first with Enhance turned all the way down and then add some Enhance in while listening to your mix.

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Other Features

What's new and improved in the A320 compared to the A-16 or A-16II?

The A320 allows you to mix more content, delivers improved audio performance, and offers a streamlined user interface. With a 32-channel mix engine and support for mono or stereo sources in every mix channel, the A320 allows you to get more sources into your personal mixing system, while preserving the benefits of keeping sources in stereo. This translates into both increased control and better fidelity in the monitor mix, especially for musicians using in-ear monitors or headphones. In addition, the A320 has a Stereo Placement control similar to the A360's, allowing musicians to position both mono and stereo sources in the stereo image of the mix as a whole. The A320 also has the same output tone controls found on the premier A360. And as an added convenience, the A320 automatically saves its current mix every time you power down.

What's different between the A320 and the A360?

The A320 and the A360 both support a "16 channel" mode (similar to the A-16, A-16II, and A-16R) and a "32 channel" mode for 16 mono or stereo sources. In addition, the A360 also allows users to select a custom set of channels for each mixer in the system, selecting from up to 64 channels in the network. The A360 also has a larger mix engine, with room for ambience audio in addition to the main mix sources and the Dual Profile Channel.

In terms of mix features, the A360 adds per-channel Tone and per-channel Reverb, and its Stereo Placement control provides independent control of pan and spread of stereo sources. On the A320, pan and spread are integrated into a single control that's super easy to use.

The A360 has more output options, can save its configurations to a USB stick, and supports Network Mix Back and A360 Display for iOS®. The A320 allows users to save up to 8 mix presets, while the A360 supports 16 standard mix presets plus four Instant Mix Recall™ presets (20 total).

Can you add ambience to your mix with the A320?

Yes. While the A320 does not have a built-in ambience mic or dedicated ambience controls like the A360 does, you can still use ambience audio with the A320 and get fantastic results. Set up room mics and make an ambience mix (ideally in stereo) at the console. Send that to the A320s as a mix source. Ambience can then be mixed like any other source.

Does the A320 support channel groups?

No, mix channels cannot be made into groups on the A320. This advanced feature is available on the A360.

Can the A320 save a mix?

The A320 can save 8 mix presets; it uses the first 8 mix channel buttons as storage locations. In addition, the A320 remembers its last mix settings when it is powered down even if you didn't actively save the mix to a preset.

Does the A320 remember its mix when you power it down?

Yes. Like the A360, the A320 remembers its current state when it powers down, so it comes back to exactly what you left the next time you use it.

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Can the A320's channels be remapped the way that the A360 channels can be using the A360 Channel Manager software?

No. The A320 supports a 16-channel mode (where stereo sources use two buttons, like on the A-16II) and a 32-channel mode for mixing up to 16 mono or stereo sources (stereo sources use a single button). For most ensembles, this provides ample space for sending the necessary sources to the personal mixers, but for users that want the added flexibility of customizing channel selection and layout, the A360 is a better choice. Remember that A360s and A320s can be combined in a system, so you can select the mixer best suited for each musician.

What kind of audio connections are on the A320?

The A320 has one 1/4-inch TRS stereo output on the rear panel. You can connect headphone or earbuds, or use it as a stereo line-level output if you need to connect it to a wireless transmitter for your in-ear monitors.

Does the A320 come with a power supply?

The A320 does not have a DC power jack on it and must be plugged into a powered port on an A-Net Distributor product, so it does not come with a DC power supply.

What kind of mic stand mount does the A320 use?

The A320 has the same hole pattern as the A-16II and A360, so it can be used with an older MT-1 or newer MT-1a Mic Stand Mount. You can also use the EB-1 Extension Bracket if you want to clamp the A320 to the shaft of a mic stand or music stand.

Upgrading

Is the A320 compatible with the Aviom personal mixing system I already own?

If you have an existing Aviom personal mixing system, the simple answer is YES! Whether you want to replace a mixer or add a new user, all it takes is a Cat-5e cable and an open mixer port on an A-Net Distributor (A-16D, A-16D Pro, D400, D400-Dante, D800, or D800-Dante). The A320 Personal Mixer is set up right out of the box to seamlessly fit into a 16-channel system; there's nothing to configure.

Can the A320 replace one of my existing A-16II Personal Mixers?

If you have a personal mixing system with one input device (analog or console card, up to 16 inputs total) and an A-Net Distributor, you can simply unplug an A-16II and connect its Cat-5e cable to an A320 Personal Mixer and you're ready to mix. If your A-16II is daisy-chained and powered locally, you'll need to connect the A320 to an A-Net Distributor for power.

What do I need if I want to add another user to my existing system that already has six Personal Mixers?

As long as your personal mixing system has an A-Net Distributor with an open port, all you need to do is plug in the A320 with a Cat-5e cable and you're ready to mix.

Is the A320 easy to learn?

Most musicians can learn to use an A320 Personal Mixer in less than a minute, especially if they're already familiar with the A-16 or A-16II. The A320 was designed to be easy to use, no matter how technical (or not) a user is.

How do the 32 inputs get into the monitors?

If you're going to operate your A320 in 32-channel mode (for up to 16 mono or stereo sources), then it's sometimes easier to think of your input modules/cards as having eight stereo inputs rather than just 16 mono inputs. For each channel pair on the input module or console card, the odd channel is used for the left side of a stereo source, and the even channel is used for the right side of a stereo source. If you're connecting a mono source, then use just the odd input channel and skip the even input channel. Use the stereo link switch on the front panel/card face to set each channel pair to mono or stereo. The A320 then assigns those channels to mix channel buttons and you're ready to mix.

How do the stereo channels get assigned?

Each pair of channels on an analog input module such as the AN-16/i v.2 or a digital console card such as the Y1 A-Net Card for Yamaha has a Stereo Link switch. Moving that switch to the Stereo position sets the channel pair to be stereo. All personal mixers instantly recognize the stereo source.

What do I need to add to get the 16 mono or stereo sources in to my system?

If you're using analog inputs, add an AN-16/i v.2 to take the additional channels in. The AN-16/i v.2 has a bank switch and an A-Net In that allows it to be daisy chained with another Aviom input device to add more channels to your system.

If you're using a digital console with an A-Net card, you can add a second A-Net card and combine the signals in the digital domain using an SB4 System Bridge and D800 A-Net Distributor.

And if you're using Dante™ and a D400-Dante or D800-Dante A-Net Distributor, simply assign the additional channels from Dante to A-Net using the Dante Controller software (or directly from the interface of your Yamaha QL/CL Series console).

How do you assign Dante channels to an A320?

A personal mixing system connecting to a Dante audio network needs at least one D400-Dante or D800-Dante A-Net Distributor. The D400-Dante or D800-Dante translates the Dante data to A-Net, which is used by the personal mixers. Use the free Dante Controller software from Audinate to assign specific channels from Dante to A-Net, and use the D400-Dante or D800-Dante stereo link switches to configure channels as stereo or mono.

Can you daisy chain multiple A320s?

No, the A320 cannot be daisy chained. Each A320 needs to be connected to a powered port on an A-Net Distributor to gets its power and audio data.

Can I use an A320 with a wireless in-ear monitor system?

Yes, the stereo output of the A320 can provide a line-level stereo signal that can be connected to a transmitter. You will likely need a splitter cable that has a 1/4-inch TRS stereo plug at one end and a pair of 1/4-inch TS plugs (left and right) at the other end.

Can I use shielded Cat-5e cables?

Yes. The A320 is specified to be used with shielded Cat-5e cable in order to stay below the CISPR 22 Class B, ICES-003, and FCC 47 CFR Part 15 Class B emissions limits.

How long can a Cat-5e cable be?

The Cat-5e cable connecting an A320 to the system's A-Net Distributor can be up to 400 feet (122 m) long.

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Compatibility

Can the A320 be used in the same system with the A360 Personal Mixer?

Absolutely! You can design your system so that those who need custom channel mapping or more control over their mixes get the A360.

Can the A320 be connected to a Yamaha console?

A Y1 A-Net Card can be installed in Yamaha digital consoles such as the LS9 and M7CL to create a personal mixing system. If you use a QL or CL Series console, which have built-in Dante connectivity, you can also connect via Dante to a D400-Dante or D800-Dante A-Net Distributor to send channels to the A320.

Can the A320 be connected to other digital consoles?

You can connect Aviom personal mixers to almost any audio system. Many digital console manufacturers produce an A-Net output card similar to Aviom's Y1 A-Net Card for Yamaha consoles, and many also offer Dante connectivity as an option. If you use Dante from the console, remember you'll need a D400-Dante or D800-Dante A-Net Distributor to interface between the Dante network and the Aviom personal mixers. You can also use analog outputs from the console and an Aviom analog input module.

Does the A320 work with Dante?

Yes, if your system includes a D400-Dante or D800-Dante A-Net Distributor. The A320 cannot be directly connected to a Dante network, so use the D400-Dante or D800-Dante to interface the Dante network to your Aviom Personal Mixers.

Can the Aviom iOS app work with the A320?

No, Aviom's A360 Display™ iOS app works only with the A360 Personal Mixer.

Does the A320 support Network Mix Back™?

No, Network Mix Back™ requires an A360 Personal Mixer and D800 or D800-Dante A-Net Distributor. You can, however, connect a wireless in-ear monitor transmitter unit to an A320 using the Stereo Mix Out jack and a Y cable.

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