PreSonus

StudioLive™ RM32AI RM16AI Applications Guide

Contents

1. General Control and Recording

Control for RM mixers can be done via Firewire or Network connection. Network control requires connecting the mixers to the network via a hardwired Ethernet connection or WiFi connection.

AVB audio transport and control is done either over a network consisting of an AVB switch connected to a WiFi Router (both the AI Console and RM Mixer must be hardwired to the AVB switch in this case) or by Direct Connection of the AI Console to the RM mixer via an Ethernet cable in combination with wireless connection of both mixers to a WiFi Router. To use the Direct Connection method, both mixers must have the WiFi adapters installed and both must be connected via WiFi to the same network/router.

Recording is currently only possible over a Firewire connection, although a future update will also allow recording via an AVB or Dante Ethernet connection. FireWire recording is supported on all available option cards (Included FireWire 800 card, Dante option card, & AVB option card)

Note: A FireWire 800 cable of 3 meters or less is recommended for best performance. Bilingual FireWire 800/400 cables will limit performance and are not recommended.
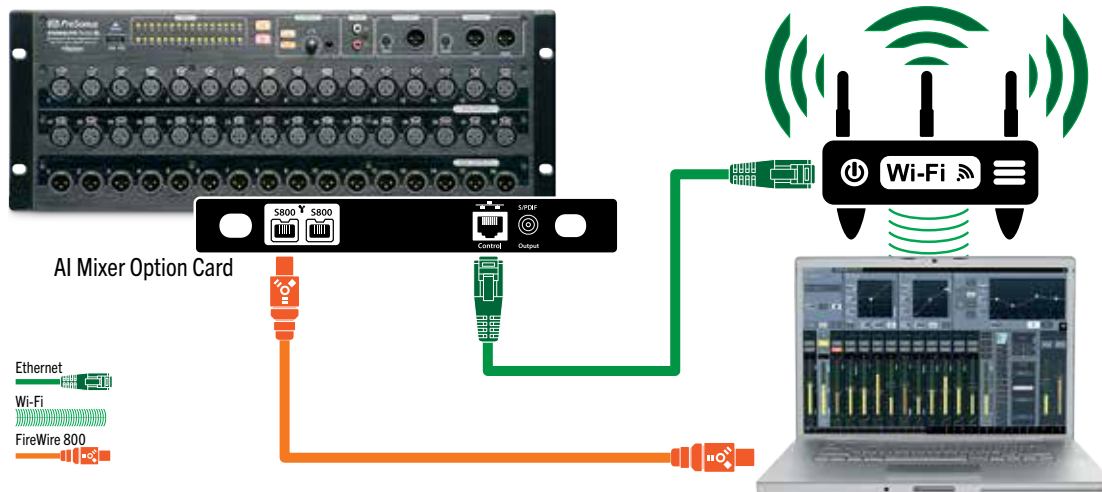
Ethernet Control + FireWire Recording	Wireless Control via Router

FireWire Recording — Available NOW!

AI Mixer Option Card

Ethernet
Wi-Fi
FireWire 800

Wi-Fi

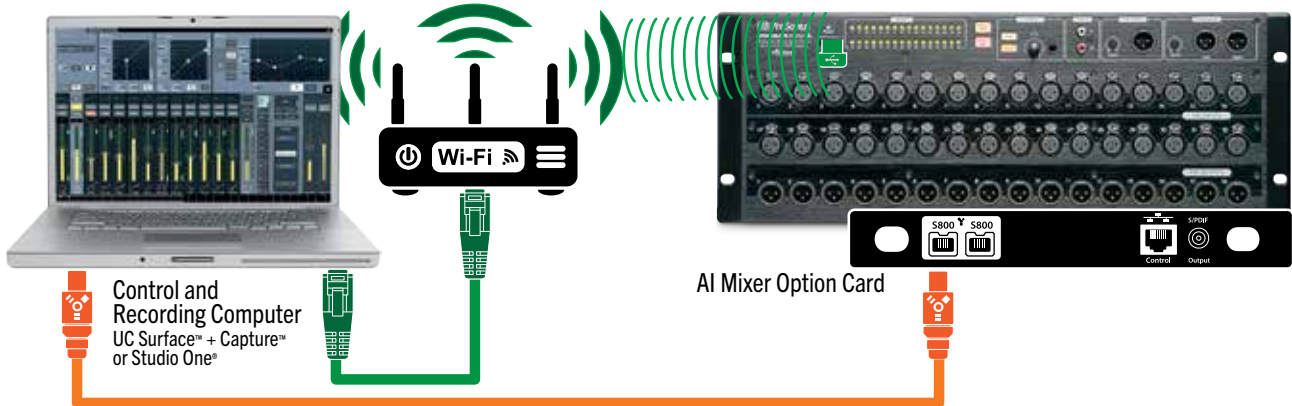Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

FireWire Recording — Available NOW!

| Ethernet Control + FireWire Recording | Wireless Control via Wi-Fi Dongle |
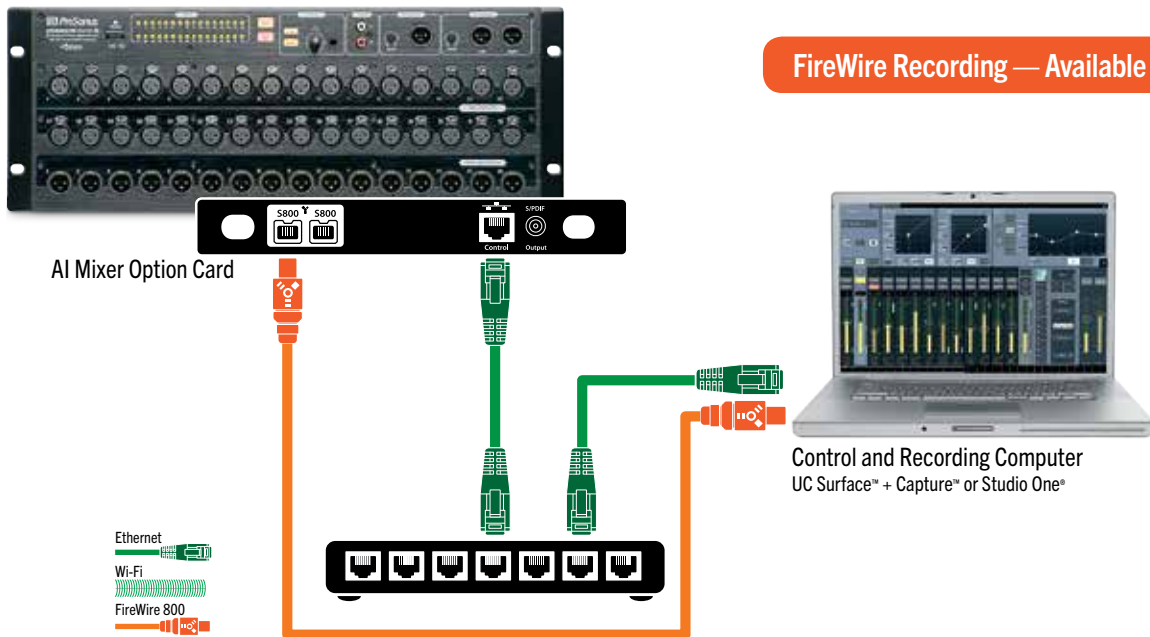
Wi-Fi

AI Mixer Option Card

Control and
Recording Computer
UC Surface™ + Capture™
or Studio One®

| Ethernet Control + FireWire Recording | Wired Ethernet Control |

FireWire Recording — Available NOW!

AI Mixer Option Card

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

Ethernet
Wi-Fi
FireWire 800

FireWire Recording — Available NOW!

AI Mixer Option Card

Recording Computer
Capture™ or Studio One®

Control Touch Screen Computer
UC Surface™

FireWire Recording — Available NOW!

AI Mixer Option Card

Control Touch Screen Computer
UC Surface™

Recording Computer
Capture™ or Studio One®

AI Mixer Option Card

Ethernet
Wi-Fi
FireWire 800

Recording Computer
Capture™ or Studio One®

Control Touch Screen Computer
UC Surface™

Dante™ Control and Recording — Coming 2015
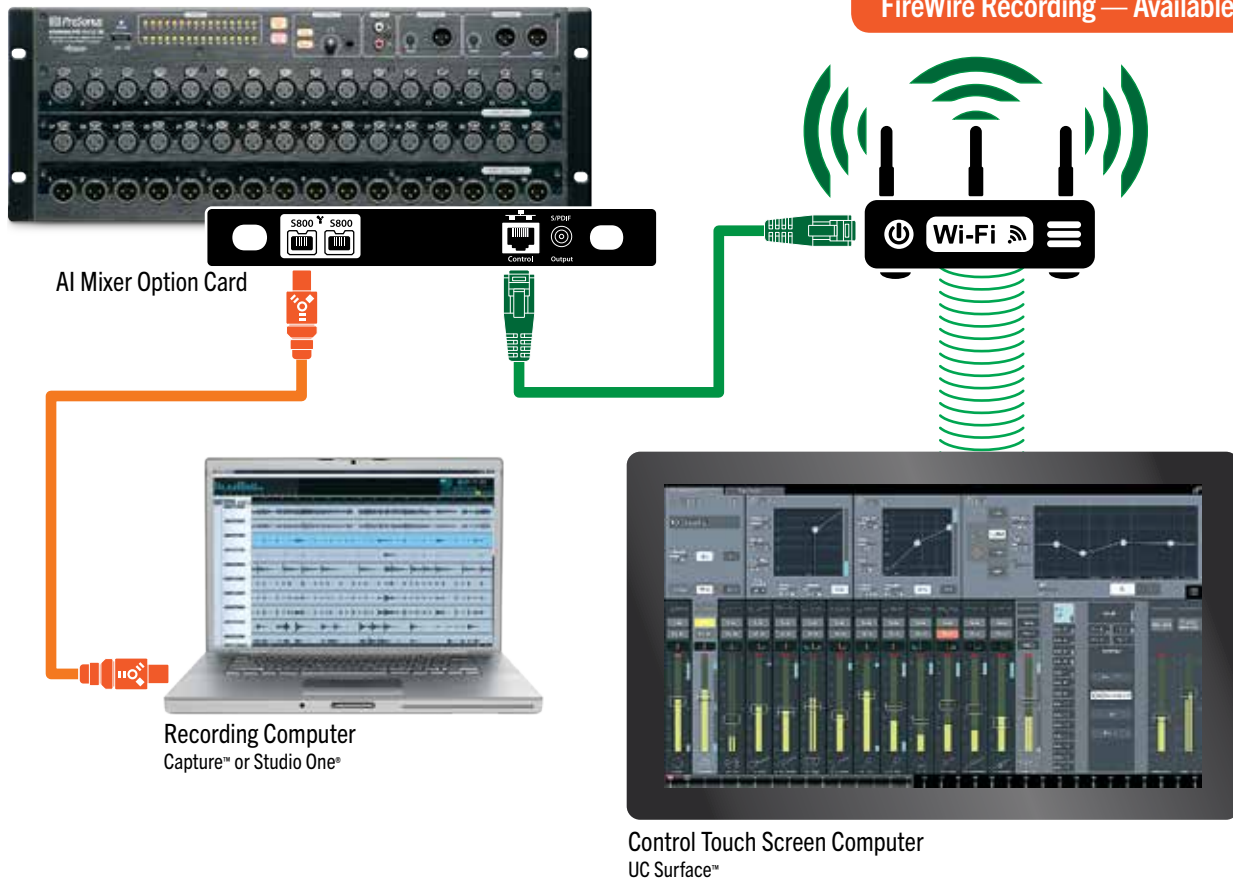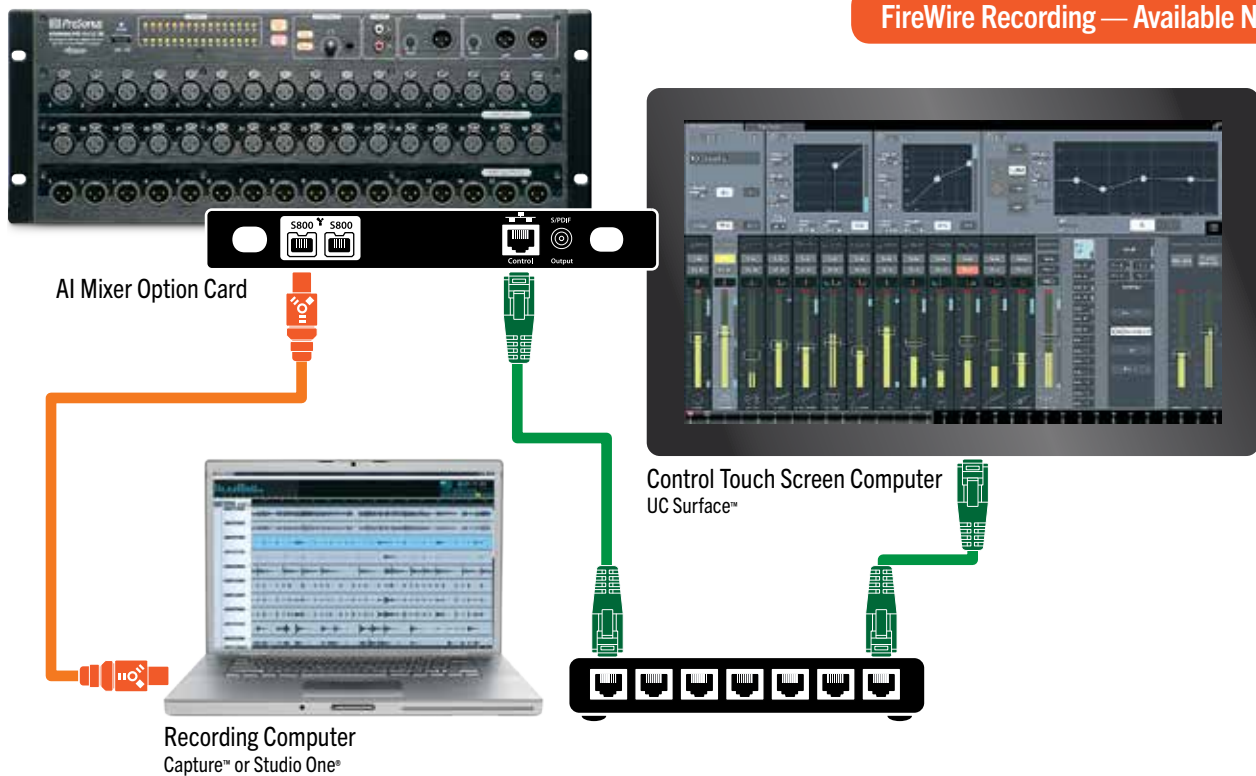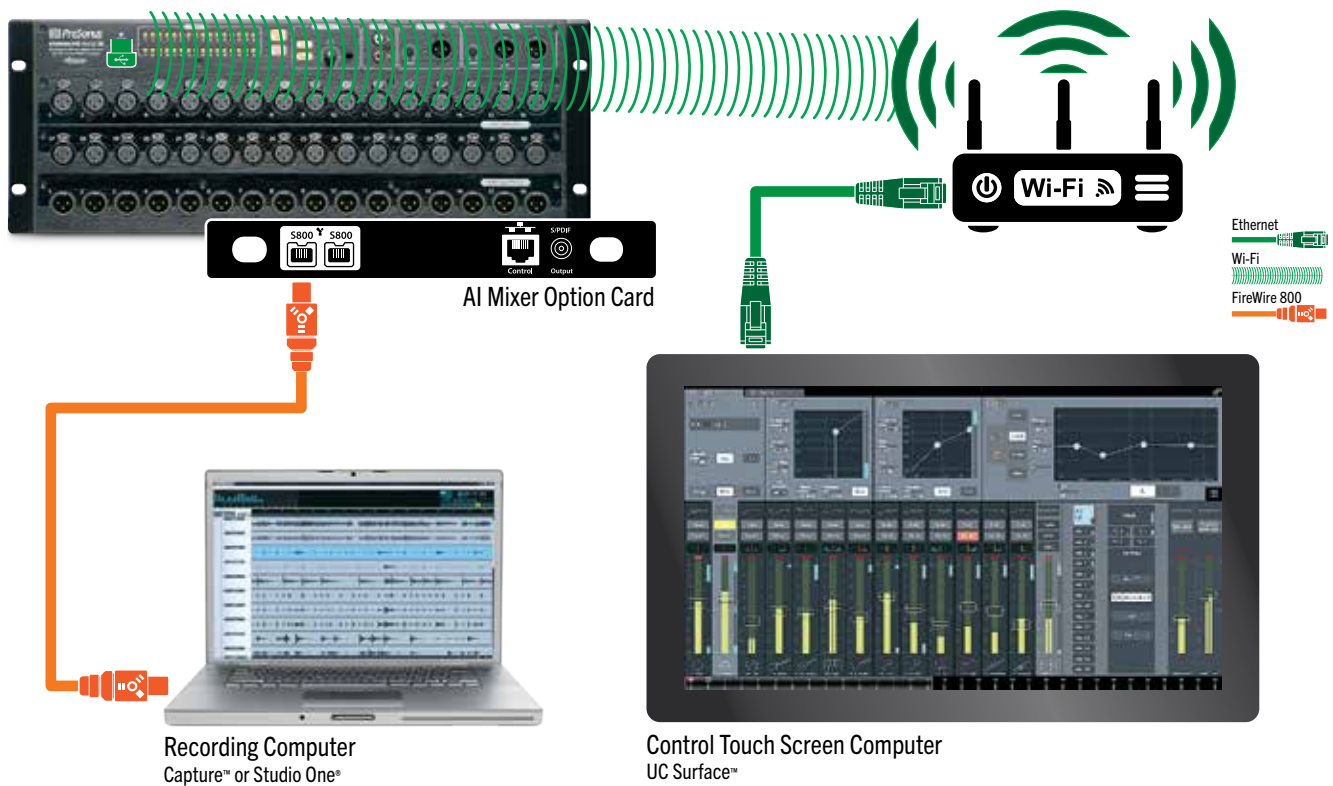
Dante recording can be done using the Dante Virtual Sound Card software and drivers for Mac and PC (included with the purchase of the Dante option card). Visit Audinate for more information on the Dante virtual sound card (https://www.audinate.com/products/software/dante-virtual-soundcard).

FireWire recording: The Dante option card will also support recording via FireWire while simultaneously sending and receiving streams over the network via Dante. In this case the Dante Ethernet connection from the mixer must also be used for control.

UC Surface™ wireless control: While the mixer does not support simultaneous wireless and Dante Ethernet connectivity you can connect a control computer wirelessly using a wireless access point connected to your network router. Note: in order to use a wireless access point on a Dante network special care must be taken to filter the Dante packets and avoid flooding the wireless network. Please refer to the Audinate "*Configuring ACL filtered VLANs for Multicast Traffic Management*" document.

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®
Dante™ Virtual Sound Card Software

AI Mixer Dante Card

Dante™ Control & Recording — Coming 2015

Ethernet Control + FireWire Recording	Wireless Dante™ Control via Wi-Fi

WAP

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®
Dante™ Virtual Sound Card Software

To other Dante Network products, such as our SL AI PA speakers.

AI Mixer Dante Card

Ethernet

Wi-Fi
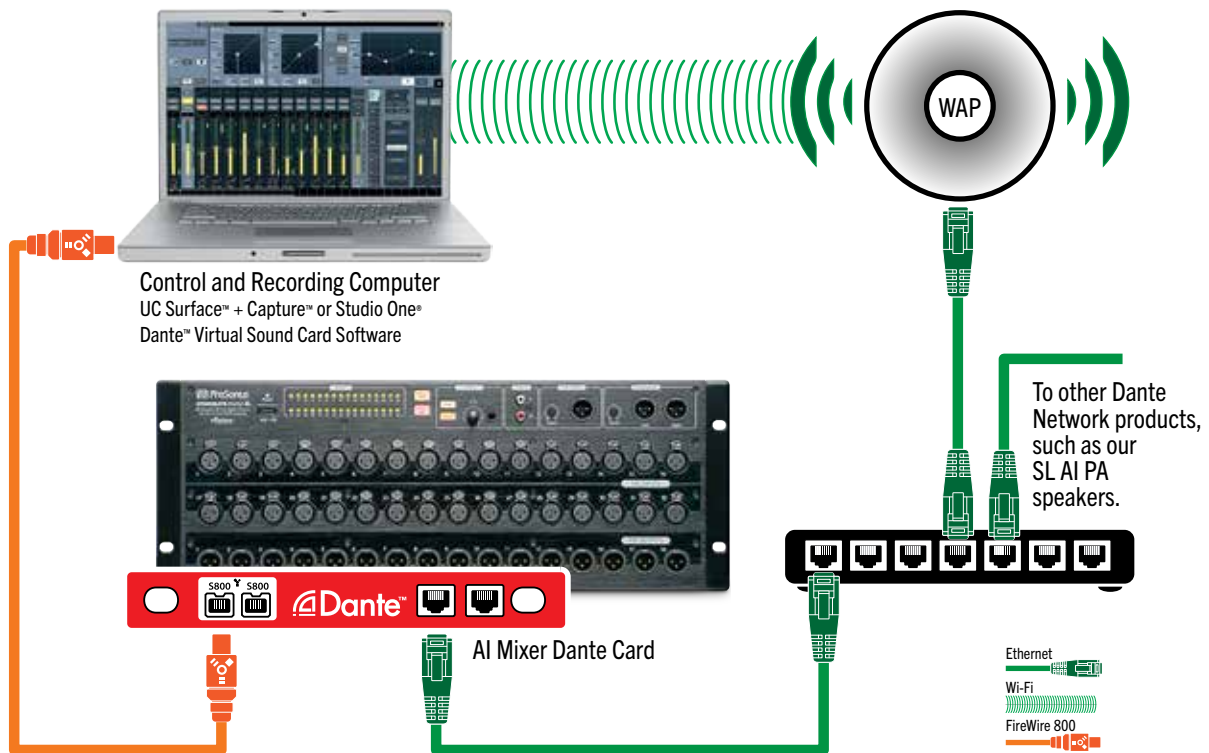
FireWire 800

Ethernet Control + FireWire Recording	Wired Ethernet Dante™ Control

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®
Dante™ Virtual Sound Card Software

AI Mixer Dante Card

Dante™ Control & Recording — Coming 2015

Recording Computer
Capture™ or Studio One®

Control Touch Screen Computer
UC Surface™

WAP

To other Dante
Network products,
such as our
SL AI PA speakers.

RM Mixer Dante™ Card

S800 S800 ∉Dante™

Dante™ coming 2015

Ethernet

Wi-Fi

FireWire 800

Recording Computer
Capture™ or Studio One®

Control Touch Screen Computer
UC Surface™

Dante™ coming 2015

To other Dante
Network products,
such as our
SL AI PA
speakers.

AI Mixer Dante™ Card

S800 S800 ∉Dante™

AVB Control and Recording — Coming 2015

AVB recording can be done with a compatible Mac computer using the built-in Core Audio support. Any Mac computer with a Thunderbolt port running OS 10.9 or later is supported. AVB recording to a PC currently requires 3rd party Ethernet cards and drivers.

FireWire recording: The AVB option card will also support recording via FireWire while simultaneously sending and receiving streams over the network via AVB. In this case the AVB Ethernet connection form the mixer must also be used for control.

UC Surface™ wireless control: While the mixer does not support simultaneous wireless and AVB Ethernet connectivity you can connect a control computer wirelessly using a wireless access point connected to your network router. Note: because AVB switches are designed to manage the AVB traffic along with standard network traffic there's no need for special configuration to support a wireless access point.

Ethernet Control + **AVB** Recording / Wired Ethernet AVB Control

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

AI Mixer AVB Card

AVB Switch

AVB recording — Coming 2015

Ethernet Control + FireWire Recording / Wireless AVB Control via Wi-Fi
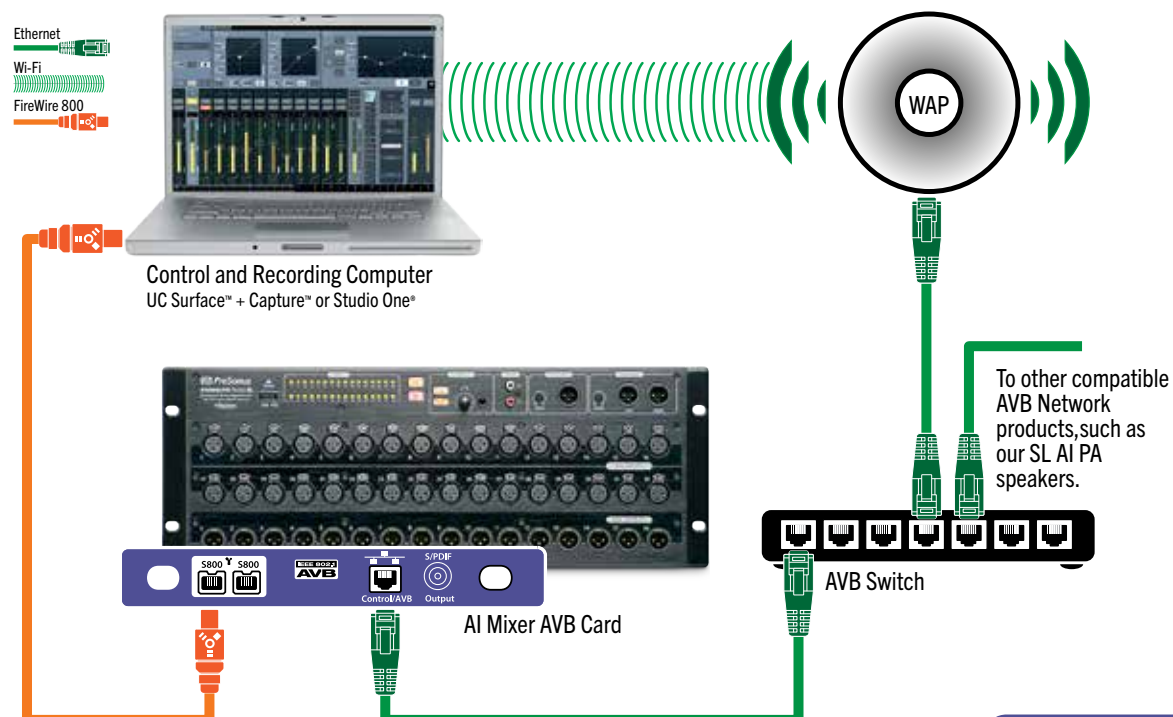
Ethernet
Wi-Fi
FireWire 800

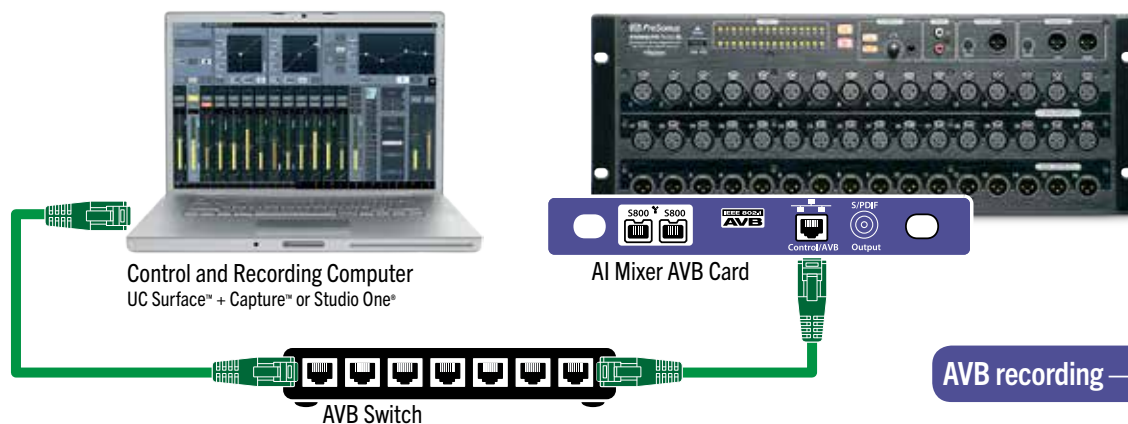Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

WAP

AI Mixer AVB Card

To other compatible AVB Network products, such as our SL AI PA speakers.

AVB Switch

AVB — Available NOW!

Ethernet

Wi-Fi

FireWire 800

Recording Computer
Capture™ or Studio One®

AVB recording — Coming 2015

Control Touch Screen Computer
UC Surface™

WAP

AI Mixer AVB Card

S800   S800   IEEE 802.1 AVB   Control/AVB   S/PDIF Output

AVB Switch

IEEE 802.1 AVB

Ethernet

Wi-Fi

FireWire 800

Recording Computer
Capture™ or Studio One®

Control Touch Screen Computer
UC Surface™

IEEE 802.1 AVB

AI Mixer Dante™ Card

S800   S800   IEEE 802.1 AVB   Control/AVB   S/PDIF Output

To other compatible
AVB Network products,
such as our
SL AI PA
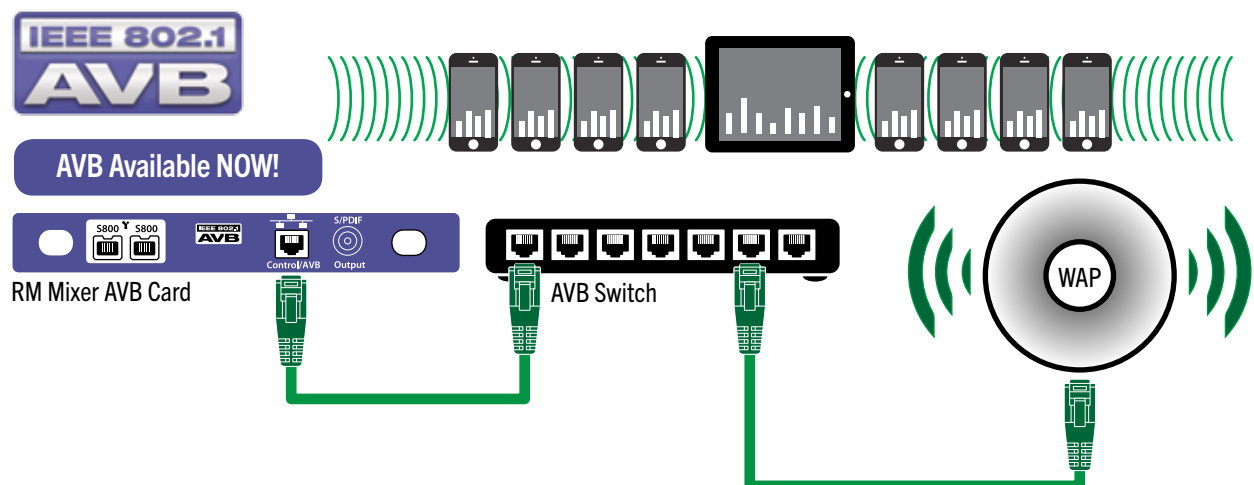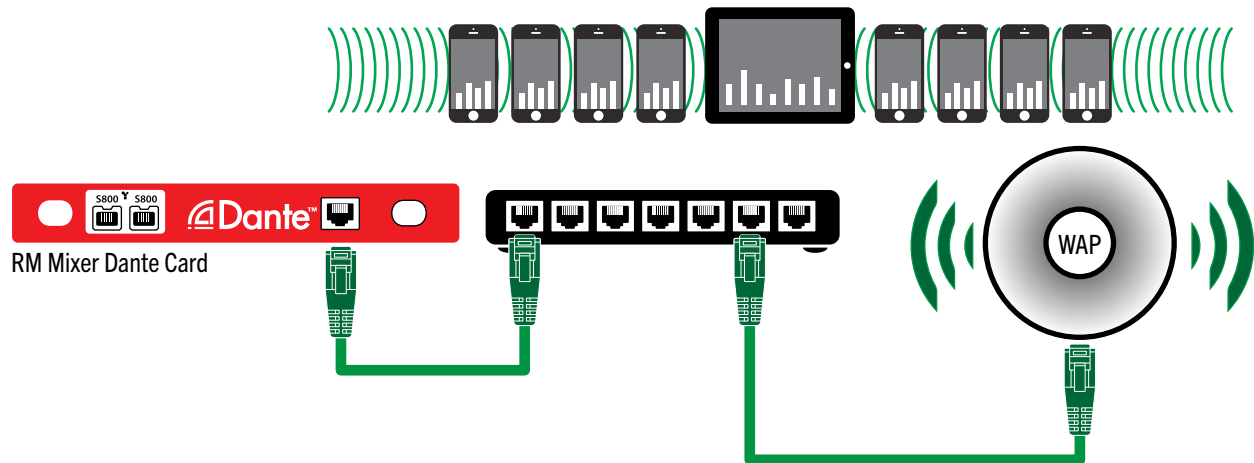speakers.

AVB Available NOW!

AVB Switch
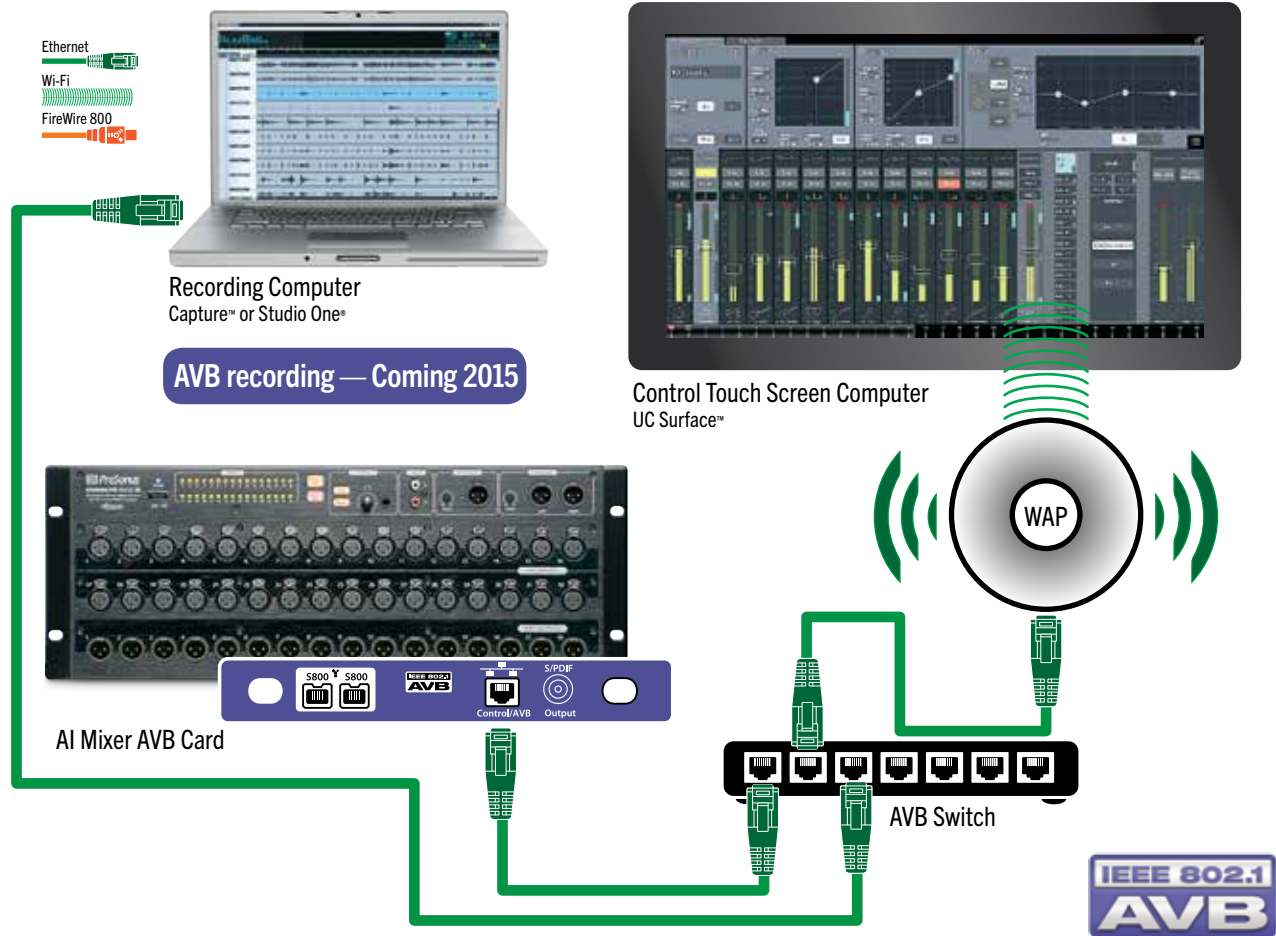
2. UC Surface™ for iPad®s, QMix™-AI for iPhone®s

UC Surface control can also be done with one or more iPads using a Wi-Fi router.

Sixteen iPhones can take advantage of QMix-AI, our advanced personal monitor mix control system.

In most applications, we recommend the use of a Wi-Fi router or access point for best results.

RM Mixer Option Card

RM Mixer Dante Card

IEEE 802.1 AVB

AVB Available NOW!

RM Mixer AVB Card

AVB Switch
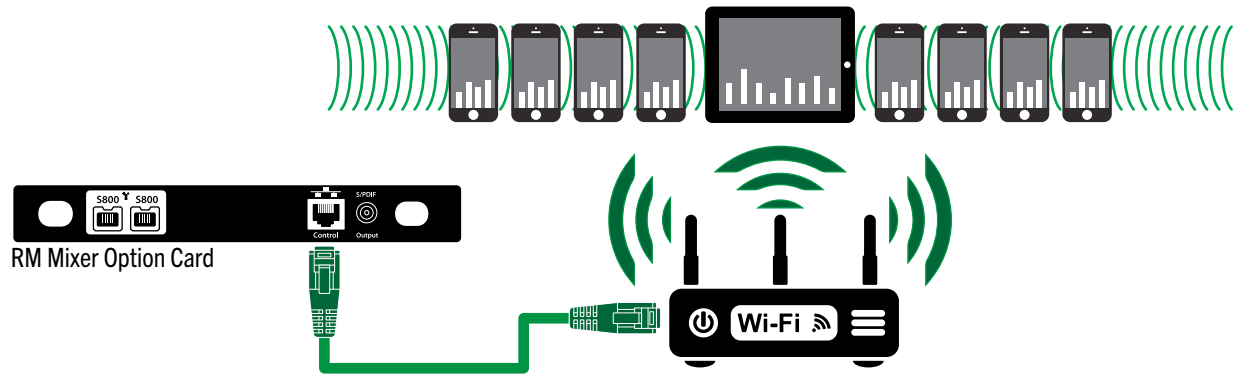
3. *Cascaded* Mixer Control and Recording

Control for the RM mixers is done via network control only. This can be done with either a wired Ethernet connection or wirelessly with the included USB Wi-Fi dongle.

NOTE: Recording via Ethernet (Dante or AVB) requires a wired Ethernet connection for recording and control (control will not work with the USB Wi-Fi dongle used simultaneously with a wired Ethernet connection).

Cascading is currently only supported via a FireWire connection between two mixers.

FireWire recording can be done with the FireWire 800, Dante, or AVB option cards.

Note: the FireWire cable length will limit the distance your recording computer can be from the mixer.

Ethernet Control + FireWire Recording	Wired Ethernet Computer Control	CASCADING

Cascaded FireWire Recording — Coming 2015

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

AI Mixer Option Card

MASTER RM MIXER

SLAVE RM MIXER

AI Mixer Option Card

Ethernet

Wi-Fi

FireWire 800

Cascading!
StudioLive RM Mixers

Cascaded FireWire Recording — Coming 2015

Ethernet Control + FireWire Recording	Ethernet Computer Control via Wi-Fi	CASCADING

Wi-Fi

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

AI Mixer Option Card

S800   S800   S/PDF
                Control   Output

MASTER RM MIXER

S800   S800   S/PDF
                Control   Output

SLAVE RM MIXER

AI Mixer Option Card

Ethernet

Wi-Fi

FireWire 800

Cascading!
StudioLive RM Mixers

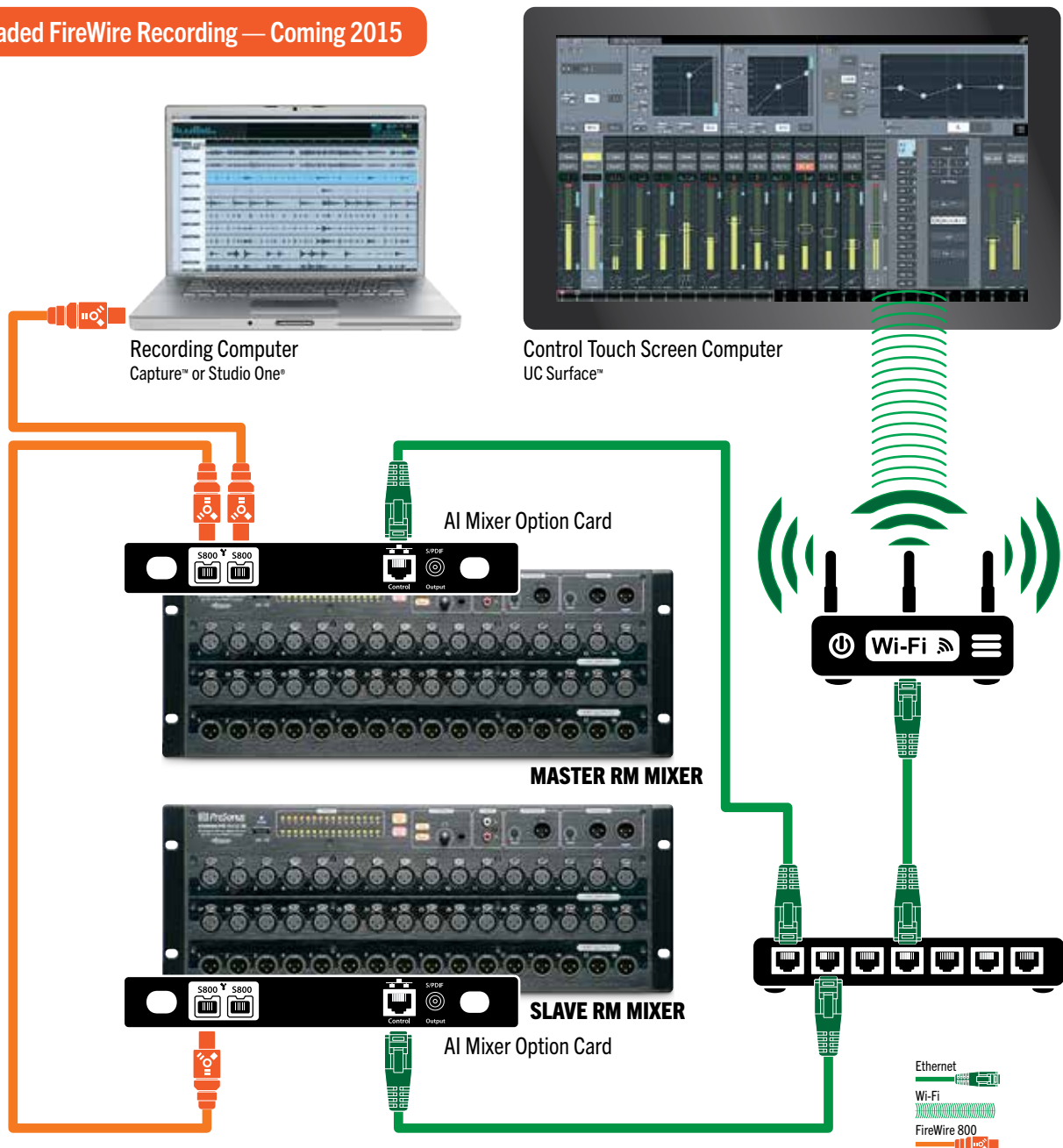| Ethernet Control + FireWire Recording | Ethernet Touch Screen Computer Control via Wi-Fi | CASCADING |

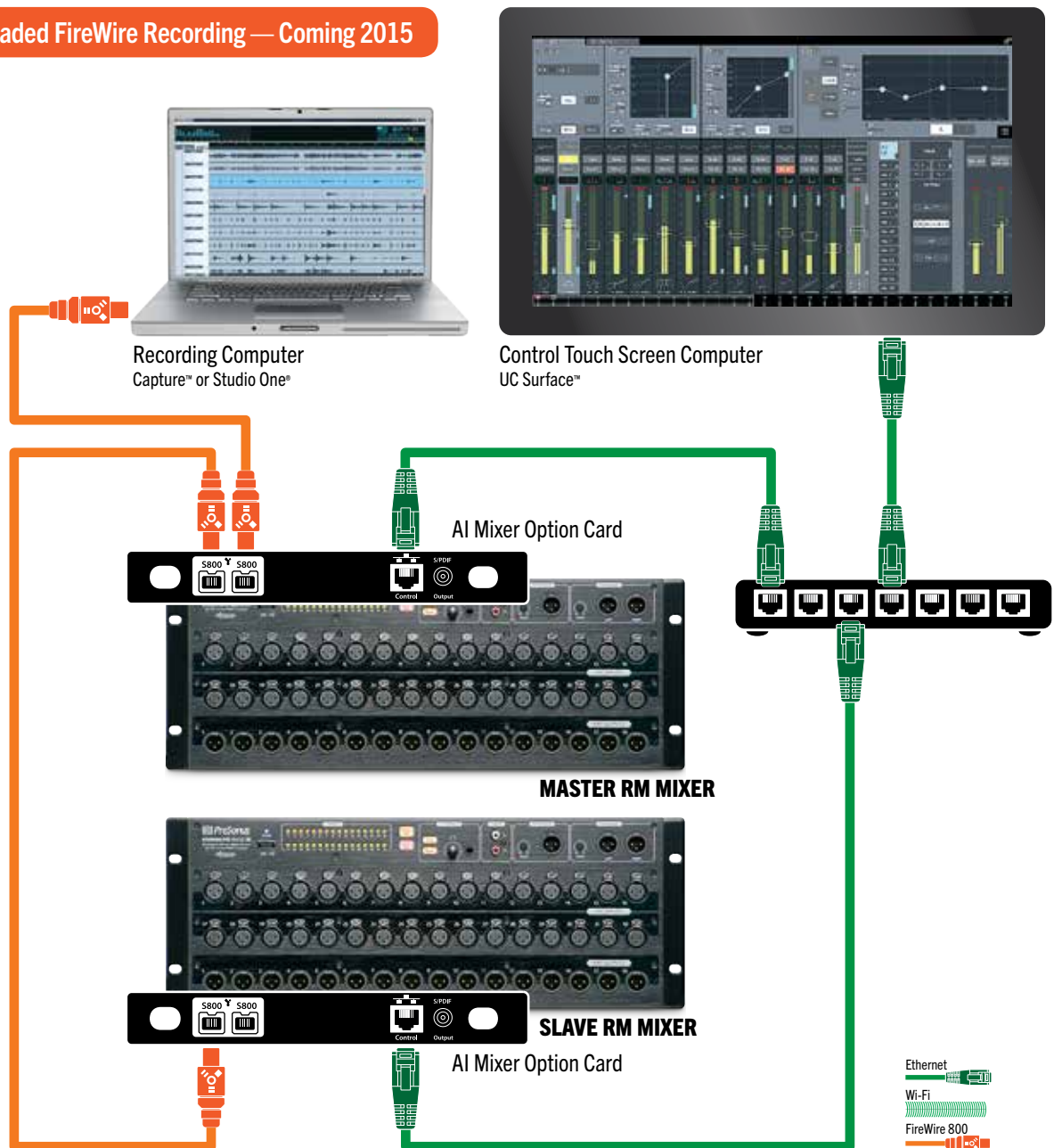**Cascaded FireWire Recording — Coming 2015**

Recording Computer
Capture™ or Studio One®

Control Touch Screen Computer
UC Surface™

Wi-Fi

AI Mixer Option Card

MASTER RM MIXER

SLAVE RM MIXER

AI Mixer Option Card

Ethernet

Wi-Fi

FireWire 800

Cascading! StudioLive RM Mixers

Ethernet Control + FireWire Recording	Wired Ethernet Touch Screen Computer Control	CASCADING

Cascaded FireWire Recording — Coming 2015

Recording Computer
Capture™ or Studio One®

Control Touch Screen Computer
UC Surface™

AI Mixer Option Card

MASTER RM MIXER

SLAVE RM MIXER

AI Mixer Option Card

Ethernet

Wi-Fi

FireWire 800

AVB recording can be done with a compatible Mac computer using the built-in Core Audio support. Any Mac computer with a Thunderbolt port running OS 10.9 or later is supported. AVB recording to a PC currently requires 3rd party Ethernet cards and drivers.

Wireless control: While the mixer does not support simultaneous wireless and AVB Ethernet connectivity you can connect a control computer wirelessly using a wireless access point connected to your network switch. Note: because AVB switches are designed to

manage the AVB traffic along with standard network traffic there's no need for special configuration to support a wireless access point.

IEEE 802.1 AVB

Ethernet Control + **AVB** Recording	Wired Ethernet Computer Control	CASCADING

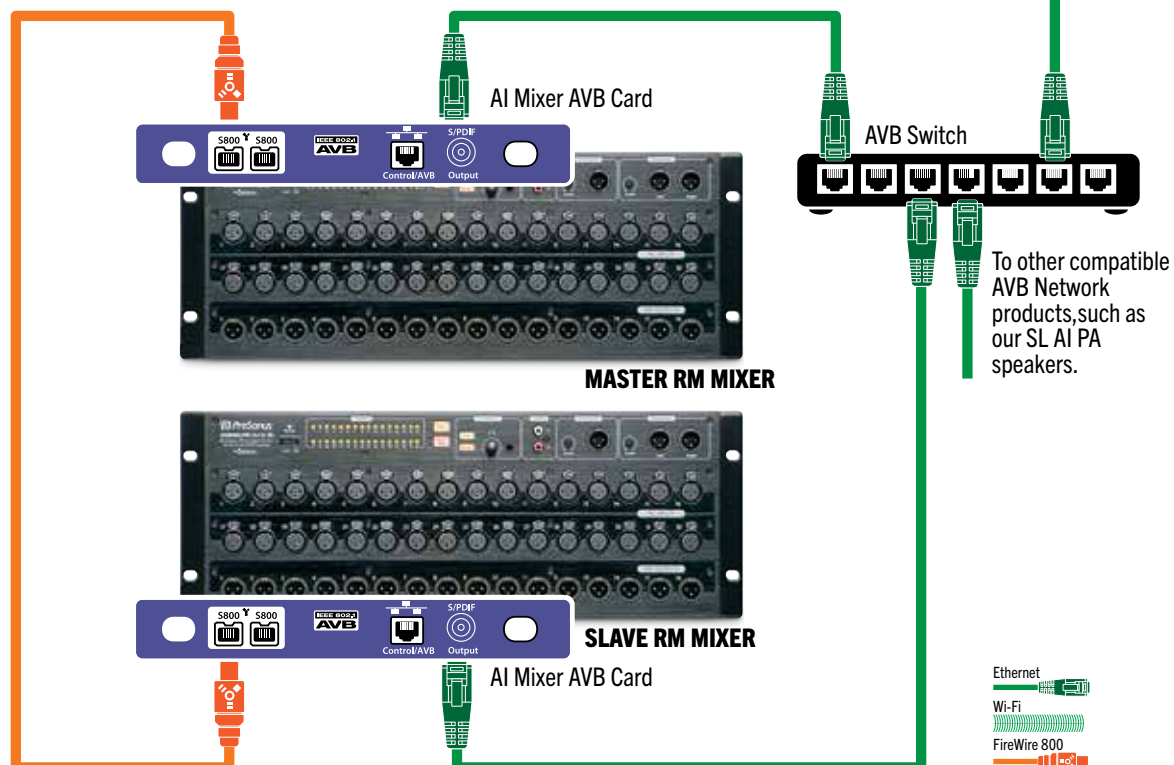## Cascaded AVB Recording — Coming 2015

OR

OR

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

Control and Recording Touch Screen Computer
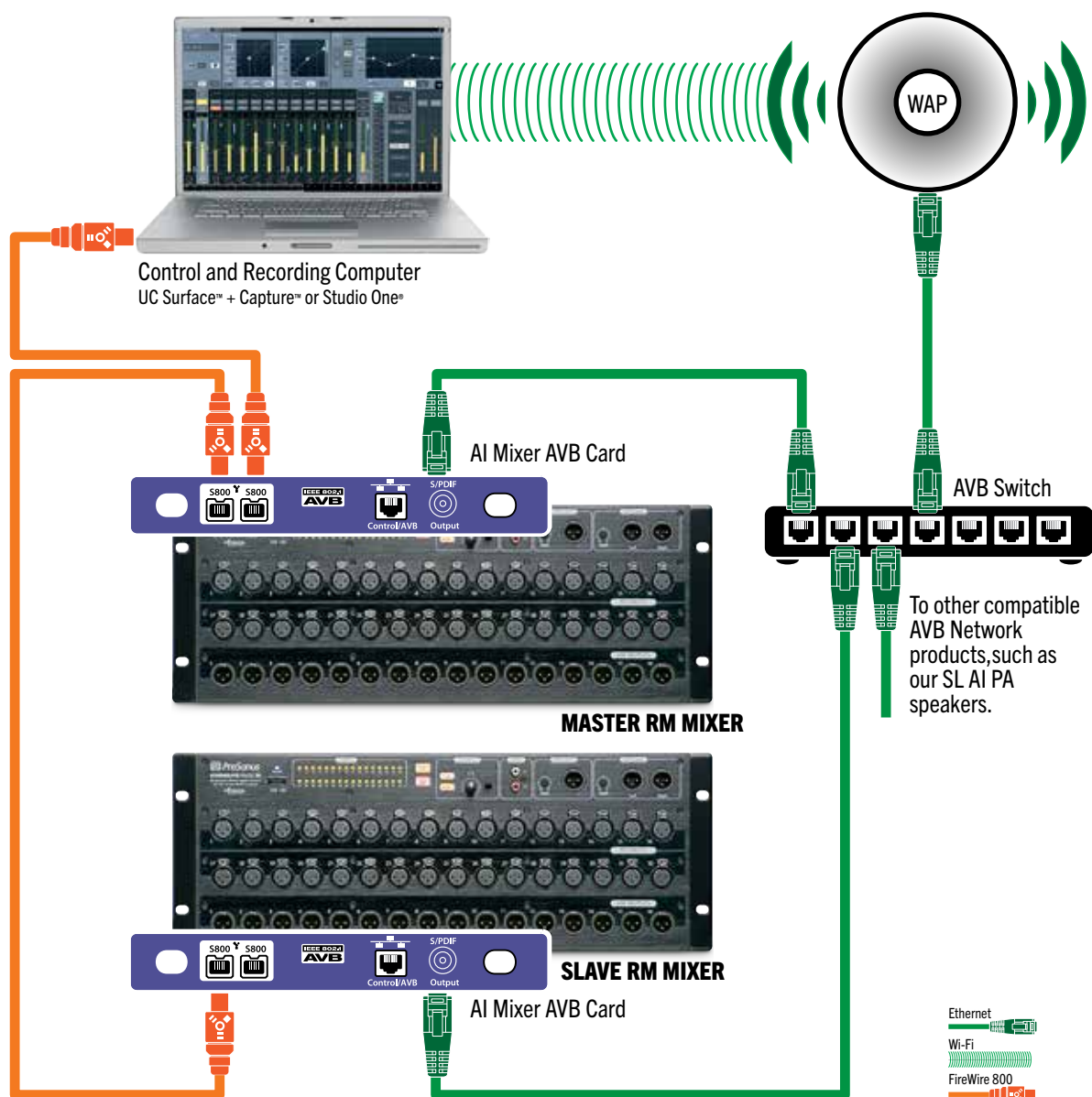UC Surface™ + Capture™ or Studio One®

AI Mixer AVB Card

AVB Switch

MASTER RM MIXER

To other compatible AVB Network products, such as our SL AI PA speakers.

SLAVE RM MIXER

AI Mixer AVB Card

Ethernet

Wi-Fi

FireWire 800

Cascading! StudioLive RM Mixers

IEEE 802.1 AVB

Cascaded AVB Recording — Coming 2015

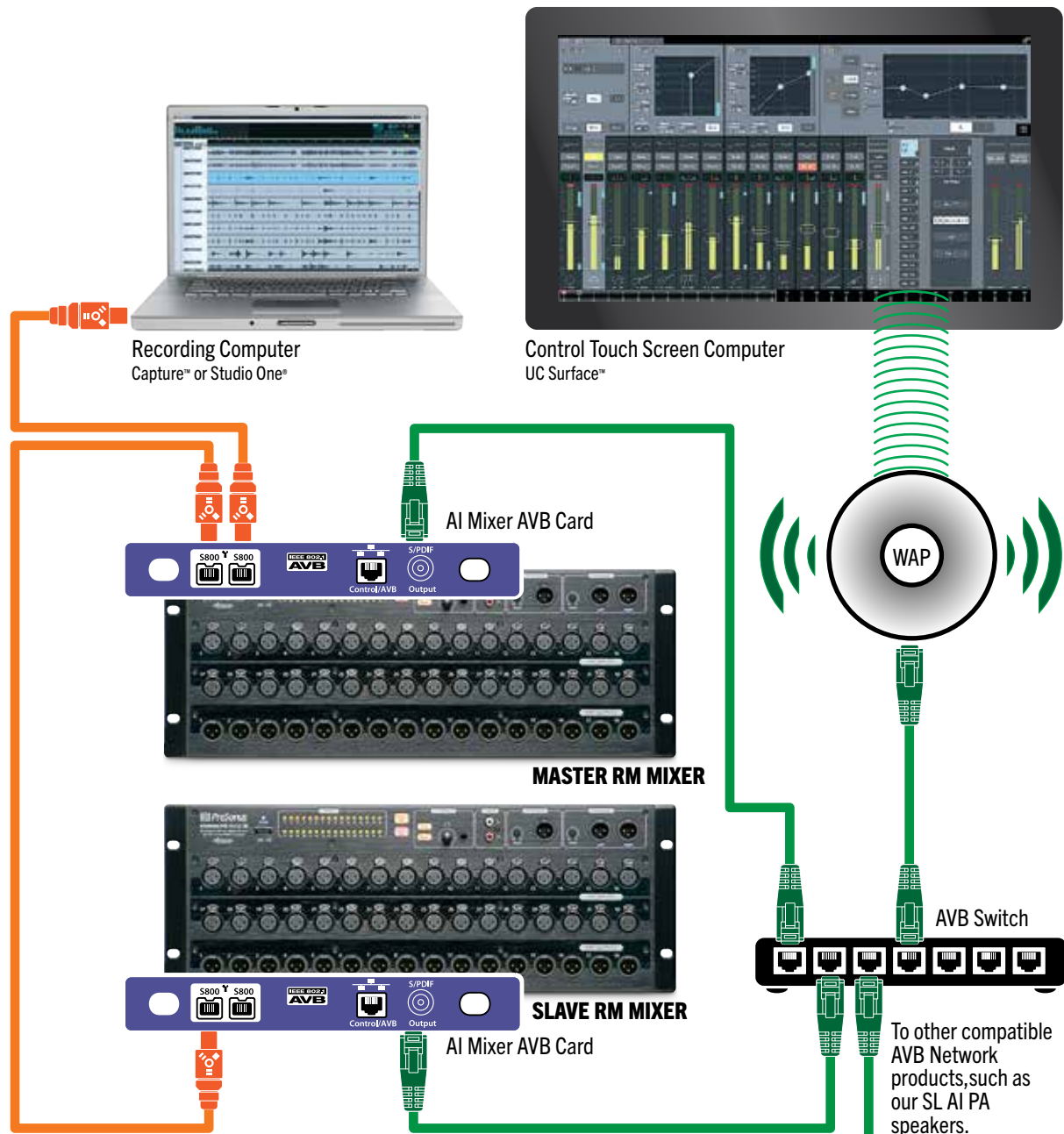| Ethernet Control + FireWire Recording	Ethernet Computer Control via Wi-Fi	CASCADING

WAP

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

AI Mixer AVB Card

S800   S800   IEEE 802.1 AVB   Control/AVB   S/PDIF Output

AVB Switch

To other compatible AVB Network products, such as our SL AI PA speakers.

MASTER RM MIXER

PreSonus

SLAVE RM MIXER

S800   S800   IEEE 802.1 AVB   Control/AVB   S/PDIF Output

AI Mixer AVB Card

Ethernet
Wi-Fi
FireWire 800

Cascading!
StudioLive RM Mixers

IEEE 802.1
AVB

Cascaded AVB Recording — Coming 2015

Ethernet Control + FireWire Recording	Wired Ethernet Computer Control	CASCADING

Recording Computer
Capture™ or Studio One®

Control Touch Screen Computer
UC Surface™

AI Mixer AVB Card

S800   S800   IEEE 802.1   Control/AVB   S/PDIF
                 AVB   Output

MASTER RM MIXER

SLAVE RM MIXER

S800   S800   IEEE 802.1   Control/AVB   S/PDIF
                 AVB   Output

AI Mixer AVB Card

WAP

AVB Switch

To other compatible
AVB Network
products, such as
our SL AI PA
speakers.

Cascaded Dante™ Recording — Coming 2015

Dante recording can be done using the Dante Virtual Sound Card software and drivers for Mac and PC (included with the purchase of the Dante option card). Visit Audinate for more information on the Dante virtual sound card https://www.audinate.com/products/software/dante-virtual-soundcard

Wireless control: While the mixer does not support simultaneous wireless and Dante Ethernet connectivity you can connect a control computer wirelessly using a wireless access point connected to your network router. Note: in order to use a wireless access point on a
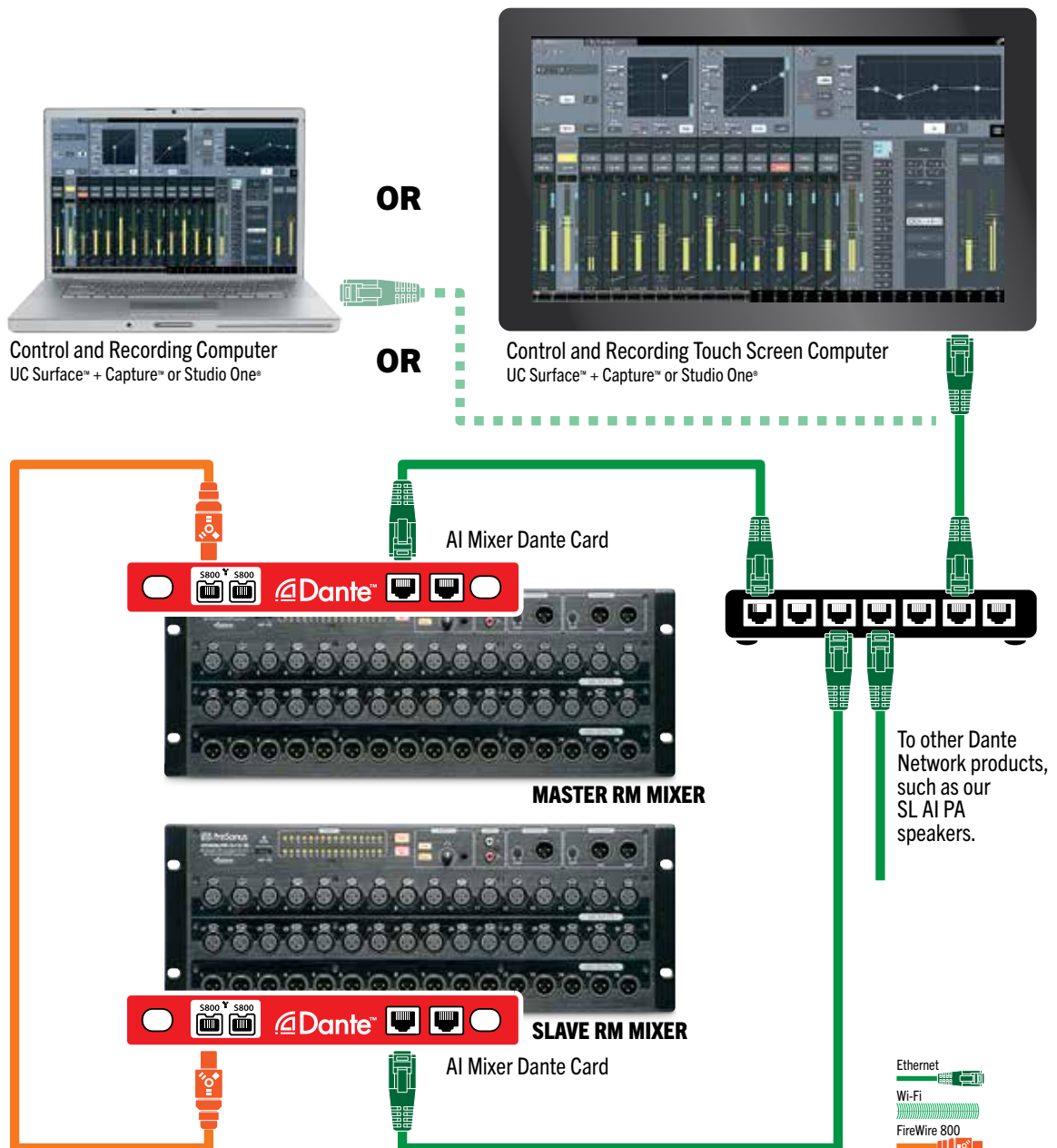
Dante network special care must be taken to filter the Dante packets and avoid flooding the wireless network. Please refer to the Audinate *"Configuring ACL filtered VLANs for Multicast Traffic Management"* document.

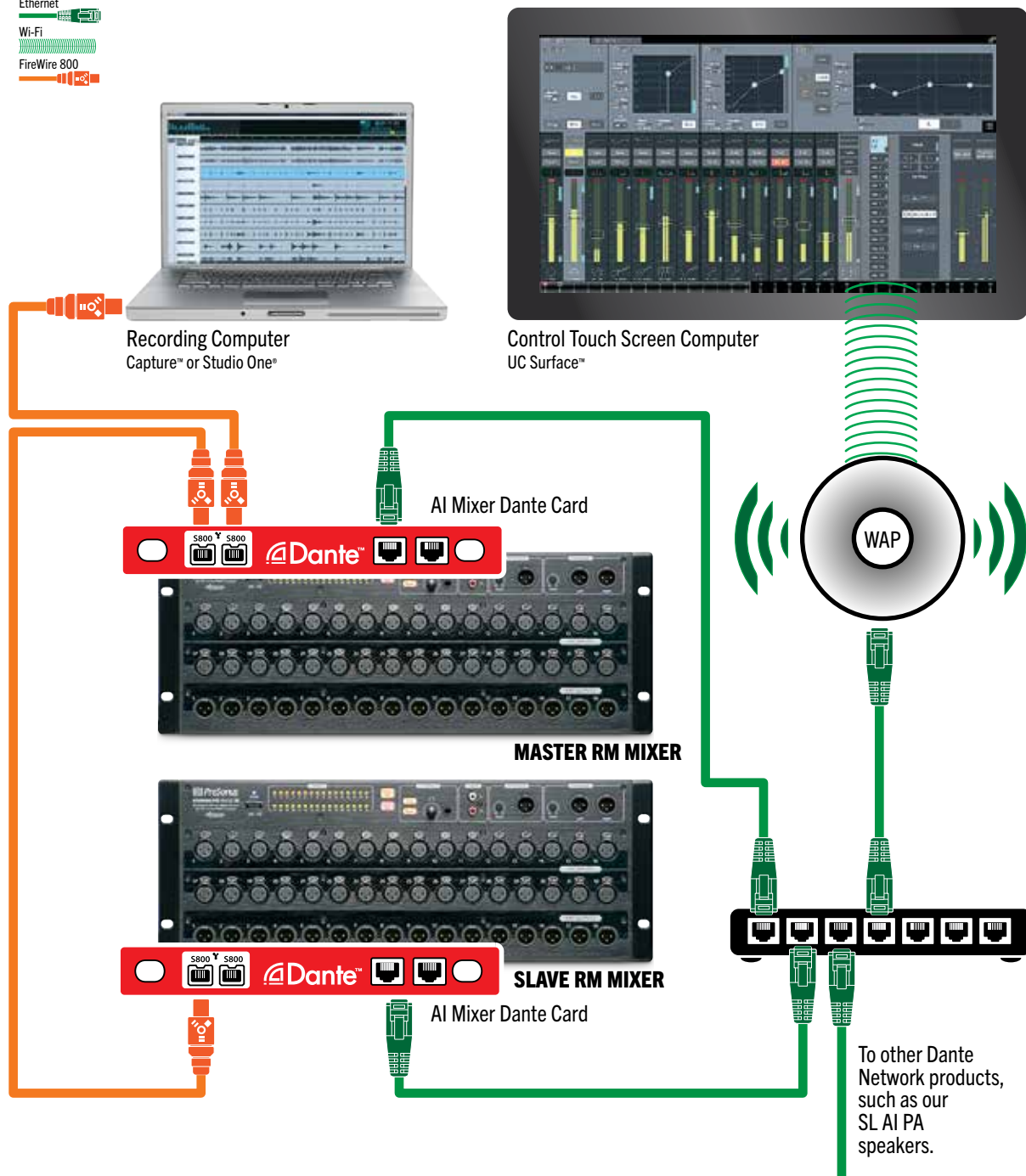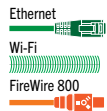| Ethernet Control + **Dante**™ Recording | Wired Ethernet Computer Control | CASCADING |

OR

OR

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

Control and Recording Touch Screen Computer
UC Surface™ + Capture™ or Studio One®

AI Mixer Dante Card

MASTER RM MIXER

To other Dante Network products, such as our SL AI PA speakers.

SLAVE RM MIXER

AI Mixer Dante Card

Ethernet
Wi-Fi
FireWire 800

Cascading! StudioLive RM Mixers

Cascaded Dante™ Recording — Coming 2015

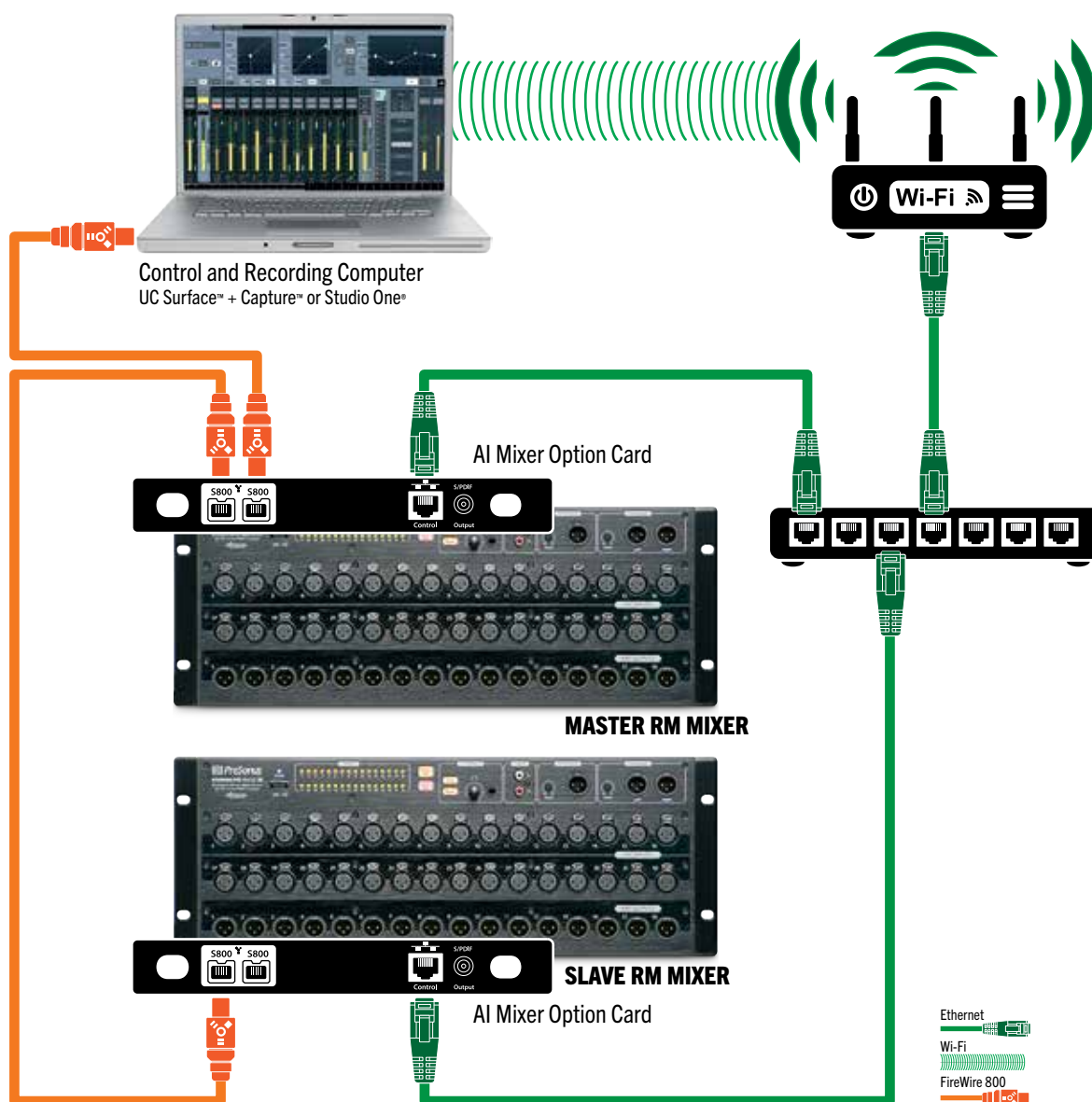| Ethernet Control + FireWire Recording	Ethernet Computer Control via Wi-Fi	CASCADING

Ethernet

Wi-Fi

FireWire 800

Recording Computer
Capture™ or Studio One®

Control Touch Screen Computer
UC Surface™

AI Mixer Dante Card

WAP

MASTER RM MIXER

SLAVE RM MIXER

AI Mixer Dante Card

To other Dante Network products, such as our SL AI PA speakers.

Cascading!
StudioLive RM Mixers

Cascaded Dante™ Recording — Coming 2015

Ethernet Control + FireWire Recording	Ethernet Computer Control via Wi-Fi	CASCADING

Control and Recording Computer
UC Surface™ + Capture™ or Studio One®

Wi-Fi

AI Mixer Option Card

S800   S800   S/PDIF
Control   Output

MASTER RM MIXER

S800   S800   S/PDIF
Control   Output

SLAVE RM MIXER

AI Mixer Option Card

Ethernet
Wi-Fi
FireWire 800

StudioLive AI console and rack mixers can be networked together using the AVB option card. When connected on an AVB network the mixers can be used to share inputs and mixes to deliver remote IO workflows.

AVB recording can be done with a compatible Mac computer using the built-in Core Audio support. Any Mac computer with a Thunderbolt port running OS 10.9 or later is supported. AVB recording to a PC currently requires 3rd party Ethernet cards and drivers.
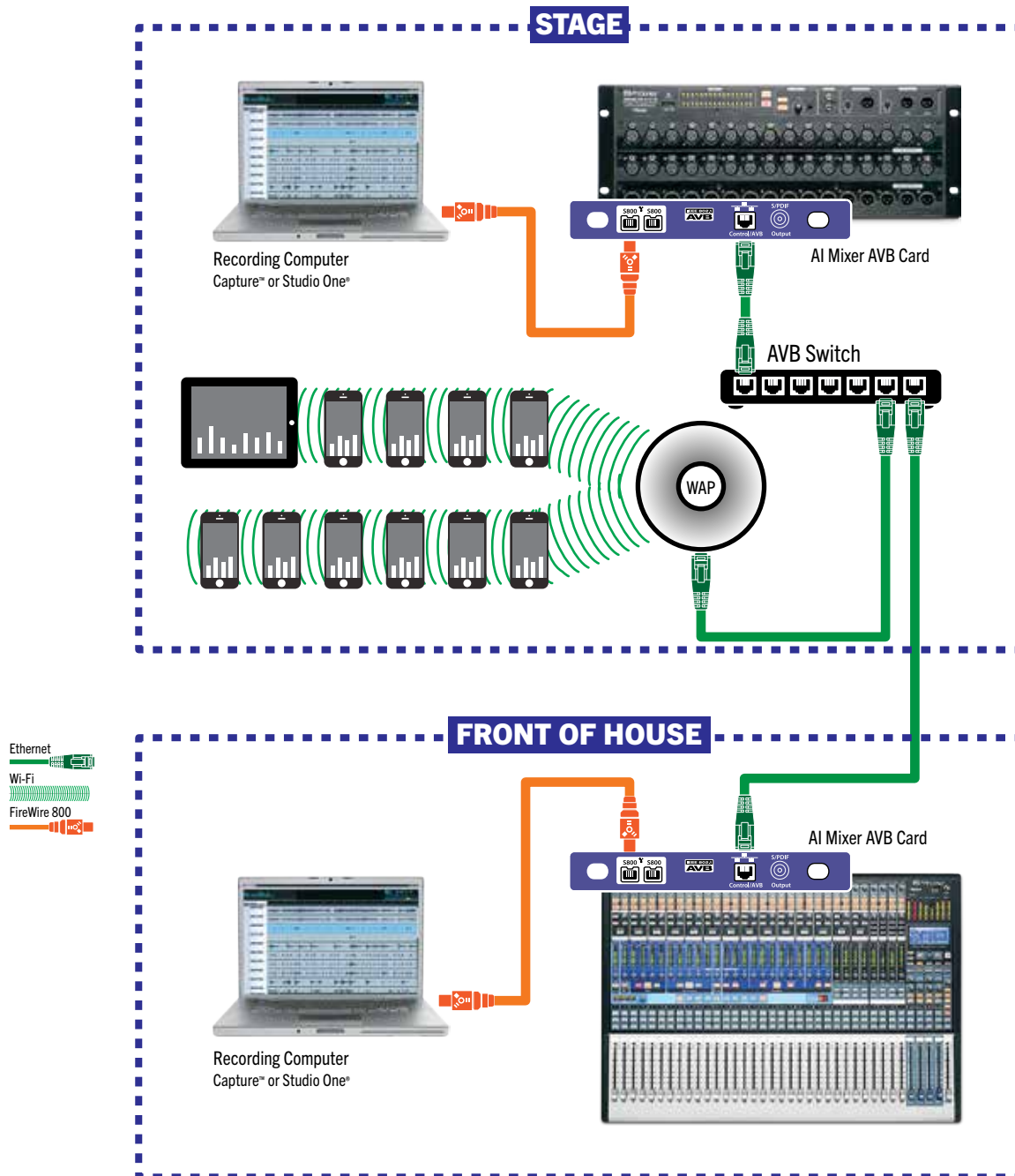
Wireless control: While the mixer does not support simultaneous wireless and AVB Ethernet connectivity you can connect a control computer wirelessly using a wireless access point connected to your network switch. Note: because AVB switches are designed to manage the AVB traffic along with standard network traffic there's no need for special configuration to support a wireless access point.

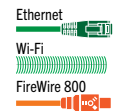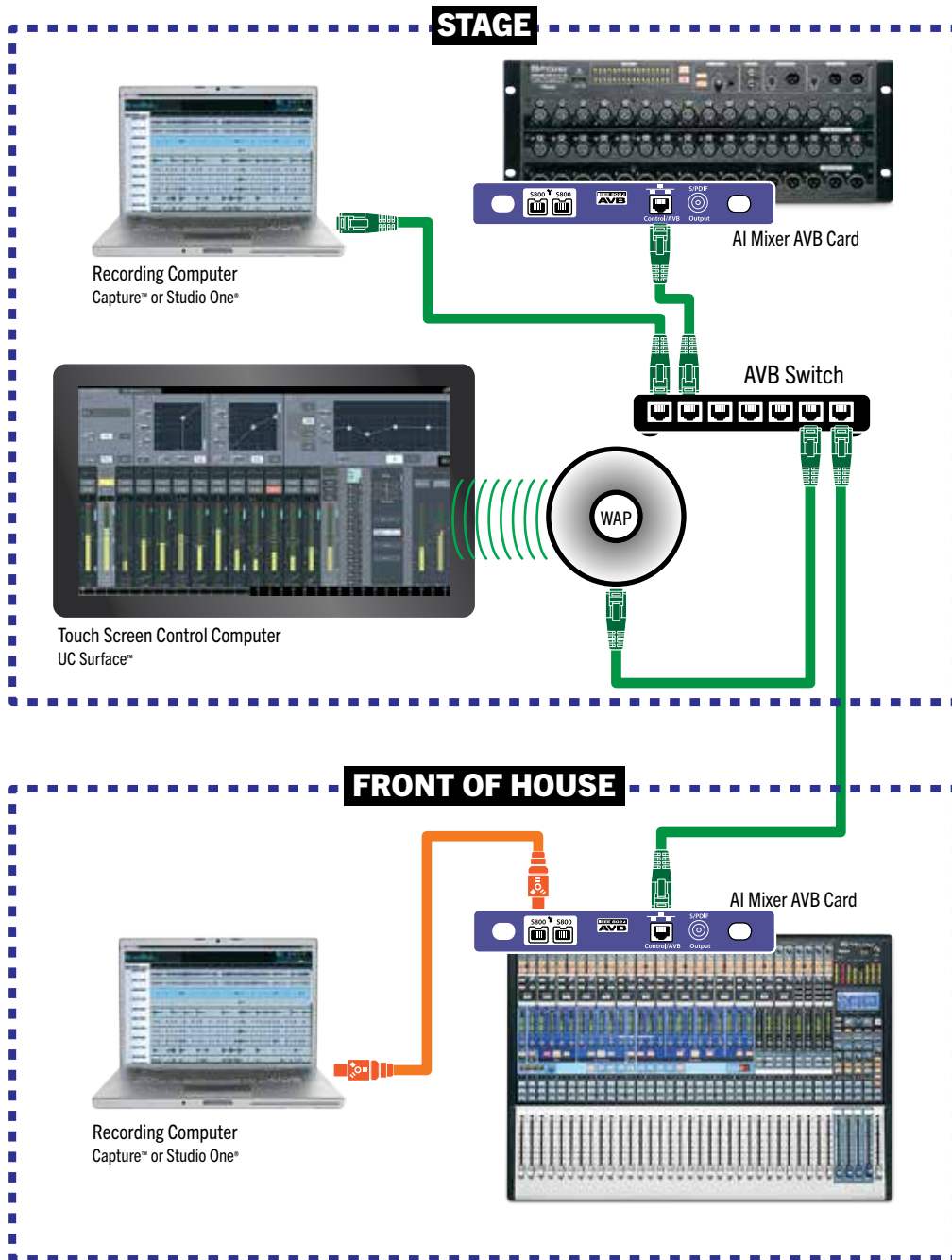| Wired Ethernet Control + FireWire Recording	AVB Audio Transport	STAGE BOX

STAGE

Recording Computer
Capture™ or Studio One®

AI Mixer AVB Card

AVB Switch

WAP

FRONT OF HOUSE

Ethernet

Wi-Fi

FireWire 800

AI Mixer AVB Card

Recording Computer
Capture™ or Studio One®

IEEE 802.1 AVB

Remote AVB Stage Box — Coming Soon

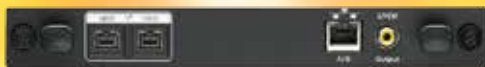| Wired Ethernet Control + **AVB** and / or FireWire Recording	**AVB Audio Transport**	**STAGE BOX**

STAGE

Recording Computer
Capture™ or Studio One®

AI Mixer AVB Card

AVB Switch

WAP

Touch Screen Control Computer
UC Surface™

FRONT OF HOUSE

AI Mixer AVB Card

Recording Computer
Capture™ or Studio One®

Ethernet
Wi-Fi
FireWire 800

SL-AVB-MIX Option Card

for StudioLive 16.4.2AI, 24.4.2AI & 32.4.2AI mixers.

Turn an RM32AI or RM16AI into a stage box and monitor mixer for any StudioLive AI FOH console. Use a single CAT5 cable as a snake.

- Replace heavy, noisy analog copper snake with a single Ethernet cable
- Adds a complete monitor mixer on stage
- 16 more aux mixes
- Separate Fat Channel processing and reverb/delay FX from FOH
- Control from UC Surface™ on a Windows® 8 touch computer, Mac® or PC laptop, or iPad®
- Individual artist mix control with QMix-AI for iPhone
- FOH can source inputs from the local analog, FireWire, or remote RM mixer
- Stage RM mixer can source inputs from the local analog or remote FOH mixer
- Control RM AI mixer preamps from StudioLive AI console mixer FOH
- Linked Talkback, Scene save and recall
- Simple one-step connection takes care of all default routing and setup

Introducing the next phase of Active Integration. The new SL-AVB-MIX AVB option card for StudioLive AI mixers lets you connect your AI Console mixer to an RM AI mixer for reliable, low latency audio networking and control. You can even adjust the on-stage RM mixer's XMAX™ mic preamps directly from your front of house console.

All StudioLive RM mixers ship with the AVB card already installed and will only need a firmware update to turn on this functionality!

Audio networking provides new, simpler ways to connect your audio gear and save the time, money and weight that comes with reels of copper audio snakes.

Unlike other networked stage boxes, using the RM mixer actually expands your mix system with a dedicated monitor mixer complete with its own Fat Channel processing and effects independent of what's being used at FOH.

With PreSonus AVB networking, we take the complexity out of the setup. You can take advantage of a networked audio system without needing an IT degree.

While we have lots of plans for expanding the capabilities of the PreSonus AVB network system, we've kept this first launch phase simple and focused on use as a remote stage box with monitor mixing system. The following Q&A details what the system can and can't do at this time.

How many mixers can I connect together?

At this time two mixers can be connected via PreSonus AVB. One AI Console mixer at FOH and one AI RM mixer at stage.

Can I connect any AI Console mixer with any RM mixer?

Yes, any of the three models of AI Console mixers (32.4.2AI, 24.4.2AI, 16.4.2AI) can connect with any of the two AI RM mixers (RM32AI, RM16AI).

Can I connect the two mixers directly (without a switch)?

Yes, a single Ethernet cable from the FOH AI Console mixer to the Stage RM mixer is all that's needed to establish a PreSonus AVB connection. When connected without an AVB switch, wireless control is accomplished by using the included Wi-Fi dongle to connect the mixers to a wireless router (see diagram below).

Do I need a special switch/router to use PreSonus AVB?

Yes, if you plan on using a switch in your setup the switch must be a qualified AVB switch. At this time we've qualified the following AVB switches to work with the PreSonus AVB network.

Brand	Model
MOTU	AVB Switch
Extreme Networks	Summit X440-8t / Software: ExtremeXOS 15.4.1.2 / Hardware: Rev 11.0

How do I set up wireless control for the mixers?

When connected without an AVB switch, wireless control is accomplished by using the included Wi-Fi dongle to connect the mixers to a wireless router. When connected with an AVB switch, wireless control is accomplished by connecting a wireless router to an open port on the AVB switch.

How many channels can I send across the network?

At this time up to 32 input channels from the stage RM mixer, up to 32 input channels from the FOH AI Console mixer, Main L/R from the FOH AI Console mixer, and Talkback from the FOH AI Console are routed across the network.

Can I send channels pre or post Fat Channel processing?

Yes, setting up an individual channel's digital send as either Pre or Post DSP will route the network send for that channel from before or after the Fat Channel processing.

Do the main mix outputs from my FOH AI Console mixer show up on the Stage RM mixer?

Yes, in the PreSonus AVB Stage Box/Mixer configuration, the Stage RM mixer will source its Main Left and Right outputs from the networked FOH AI Console mixer instead of the local RM mixer main mix.

Can I use the Aux and Main mixes on the Stage RM mixer?

All Aux mixes are available to use as monitor mixes on the Stage RM mixer complete with Fat Channel processing. At this time, the Main L/R mix is not available since the Main L/R outputs on the Stage RM mixer will be sourced from the FOH AI Console mixer main L/R mix.

Can I send Aux mixes between mixers?

At this time only the Main L/R mix from the FOH AI Console mixer is routed across the network. All Aux mixes remain local to the mixer they are on. This is planned for a future update.

Can I control the RM mixer preamps from the AI Console mixer at FOH?

Yes, in the PreSonus AVB Stage Box/Mixer configuration, any input on the FOH AI Console mixer that is sourced from the networked Stage RM mixer can control the preamp gain, +48V, and polarity directly from the console.

The +48V and Polarity button on the associated channel will now control the remote Stage RM mixer input.

The Value encoder in the Master Control section of the FOH AI Console mixer will control the remote Stage RM mixer preamp gain for the currently selected channel.

Can I connect a computer via FireWire for recording and playback?

Yes, you may connect a computer for playback and recording via FireWire at the FOH AI Console mixer. At this time FireWire playback/recording is not supported at the Stage RM mixer while in Stage Box/Mixer configuration.

Can you connect a computer via AVB Ethernet for recording and playback?

At this time the PreSonus AVB network does not support Ethernet computer connections for audio playback and recording. This is planned for a future update.

Can I send FireWire inputs across the network?

Yes, when a computer is connected to the FOH AI Console mixer for FireWire playback, any input that is sourced from the FireWire input will also send that FireWire source across the network allowing the Stage RM mixer to source the same input for monitor mixing.

Can I use UC Surface, QMix, and VSL to control the system?

Yes, the RM mixer supports UC Surface and QMix-AI and the AI Console mixer supports VSL-AI, SL-Remote AI, and Qmix-AI. In the future the AI Console mixers will also be controlled from UC Surface.

Can I customize the channel routing between mixers?

At this time the network routing between mixers is fixed to provide a simple and reliable setup with as little confusion as possible. In the future we'll be adding flexible routing support.

Can I control the Aux mixes on the RM mixer from the AI Console mixer at FOH?

There is no control of the RM mixes from the FOH AI Console mixer. The best way to control the Stage RM Aux mixes from FOH is to use a computer or iPad running UC Surface.

Can I control the Fat Channels on the RM mixer from the AI Console mixer at FOH?

At this time there is no way to control the fat channel processing on the Stage RM mixer from the FOH AI Console mixer. The best way to control the Stage RM Fat Channel processing from FOH is to use a computer or iPad running UC Surface.

How does talkback work between the two mixers?

When set up in the PreSonus AVB Stage Box/Mixer configuration, the Talkback input on the FOH AI Console mixer is automatically routed as the talkback source for the Stage RM mixer. Pressing Talkback on the FOH mixer also engages Talkback on the Stage mixer. All you have to do is choose which mixes you want to the talkback, to be routed to the Stage RM mixer using UC Surface.

Can I route inputs from the AI Console mixer at FOH back to the RM mixer on stage?

Yes, all inputs at the FOH AI Console mixer are available as network sources for the Stage RM mixer inputs. This is great if you have wireless mic receivers or playback sources at FOH that need to be routed into the stage aux mixes.

Will this system work with Dante networking?

No, at this time Dante and AVB are not compatible. We will be offering a Dante option card for our mixers soon that will allow them to be used on a Dante network.

Will this system work with AES67 or Ravenna?

No, at this time we have no support for AES67 or Ravenna.

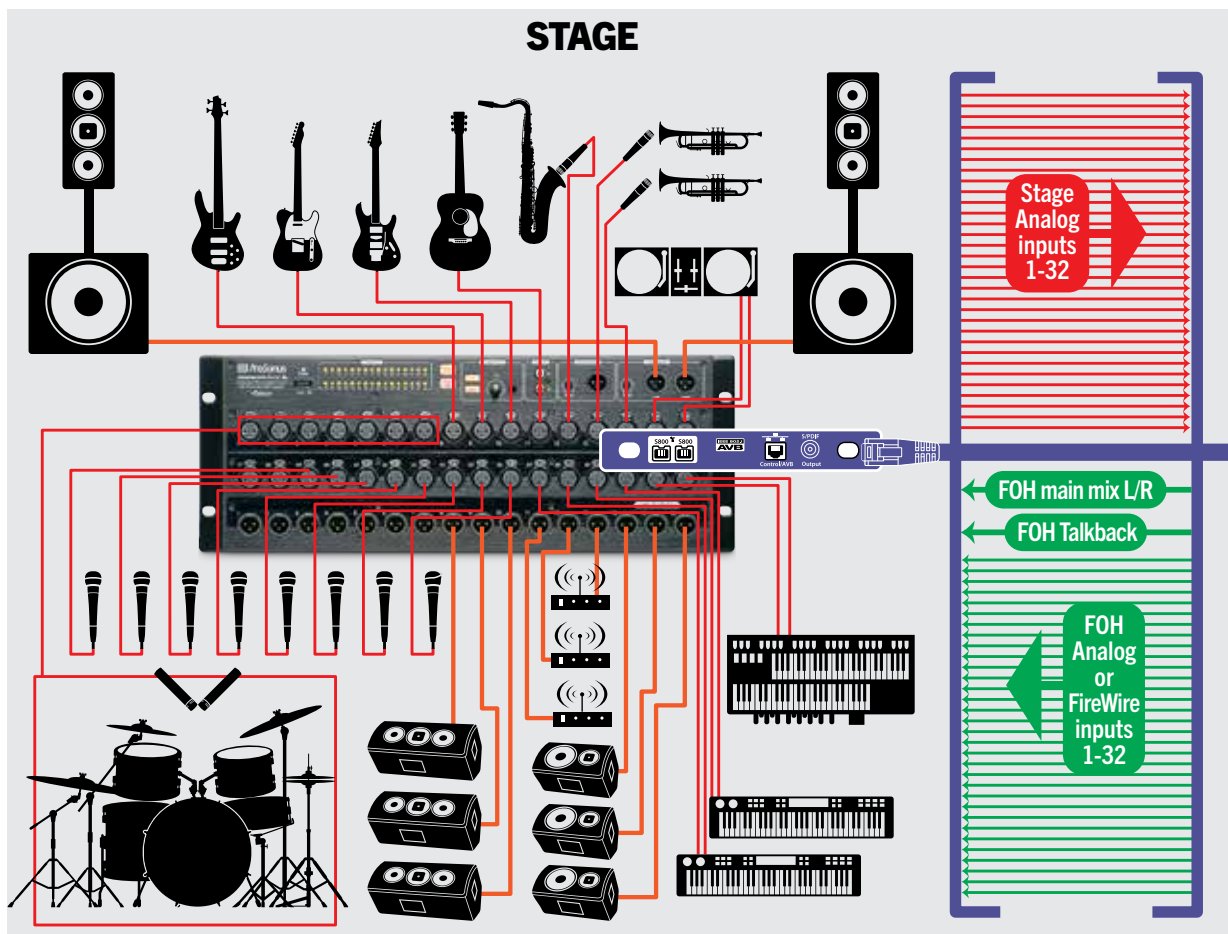### Will this system work with AVB products from other manufacturers?

With this initial release, the PreSonus AVB network only supports PreSonus AVB products. Support for other AVB products will be added in a future update.

Does this system work with the StudioLive AI loudpeakers?
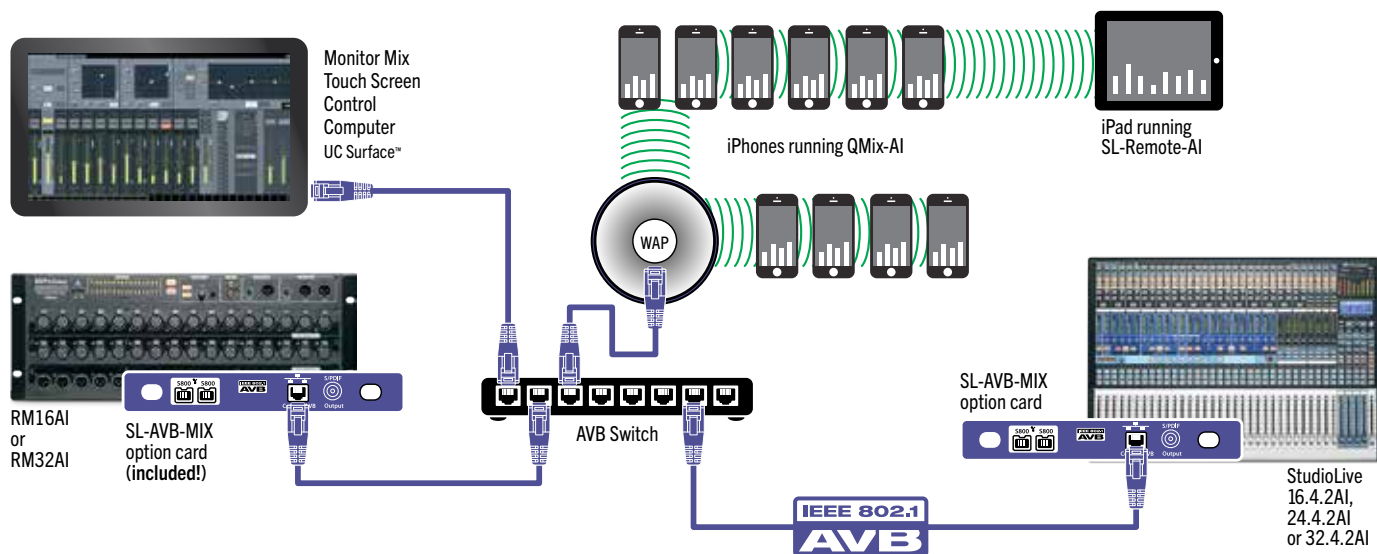
An AVB option card for the PreSonus SL AI loudspeakers will ship in Q2 2015. When the AVB option is available for the speakers, we'll support their use on the PreSonus AVB network along with our mixers.

Will PreSonus AVB networking work at 96kHz?

Not at this time. While our StudioLive AI mixers all support 96kHz operation, the AVB option card does not yet support 96kHz. This will be added in a future update.

STAGE

Stage Analog inputs 1-32

FOH main mix L/R

FOH Talkback

FOH Analog or FireWire inputs 1-32

Option 1: AVB Switch between RM Stage Box and StudioLive FOH Console

Monitor Mix Touch Screen Control Computer UC Surface™

iPhones running QMix-AI

iPad running SL-Remote-AI

WAP

RM16AI or RM32AI

SL-AVB-MIX option card (included!)

AVB Switch

SL-AVB-MIX option card

StudioLive 16.4.2AI, 24.4.2AI or 32.4.2AI

IEEE 802.1 AVB

Five simple steps for using a StudioLive RM mixer as a stage box for a StudioLive AI Console mixer.

1. **Connect mixers** — direct peer to peer or through an AVB switch.

2. **Turn on Stage Box option** — from the FOH AI Console mixer Master Control screen, page down to digital option, select stage box option and change to "on" (this automatically configures the default system configuration and routing).

3. **Select the channels you want to source remotely**. FOH inputs can be sourced from local inputs or stage. Stage inputs can be sourced from local input or from front of house.

4. **Set up your mix**— Main mix at FOH sent to both FOH outputs and Stage main L/R outputs plus you have up to 14 aux mixes and 4 subgroups at FOH and an additional 16 aux mixes at stage.

5. **Save and recall your scene set-ups** Saving and recalling at FOH saves settings for both mixers, saving and recalling at Stage is local to the stage making it easy to manage different monitor mixes independent of FOH.
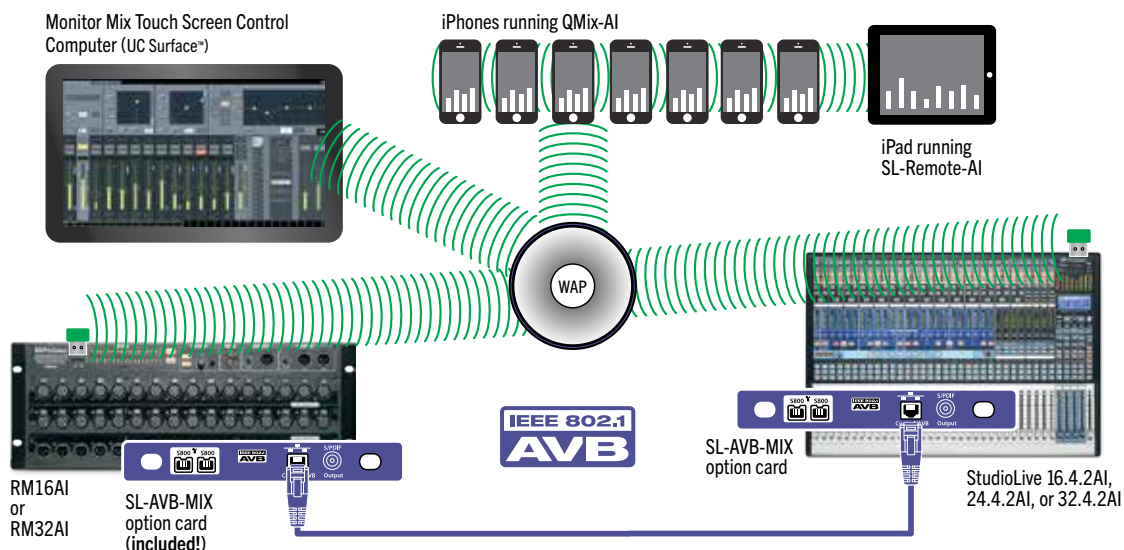
RM Series Applications

PreSonus

Your snake is now one single CAT5 cable.

instead of a heavy, expensive, bulky copper hose monster that people always trip on.

Stage Analog inputs 1-32

FOH main mix L/R

FOH Talkback

FOH Analog or FireWire inputs 1-32

STUDIOLIVE 32.4.2AI

Wireless microphone receiver

Talk-back mic

MP3 player

CD player/DVD audio

FOH Playback and Recording Computer running Capture™ or Studio One®
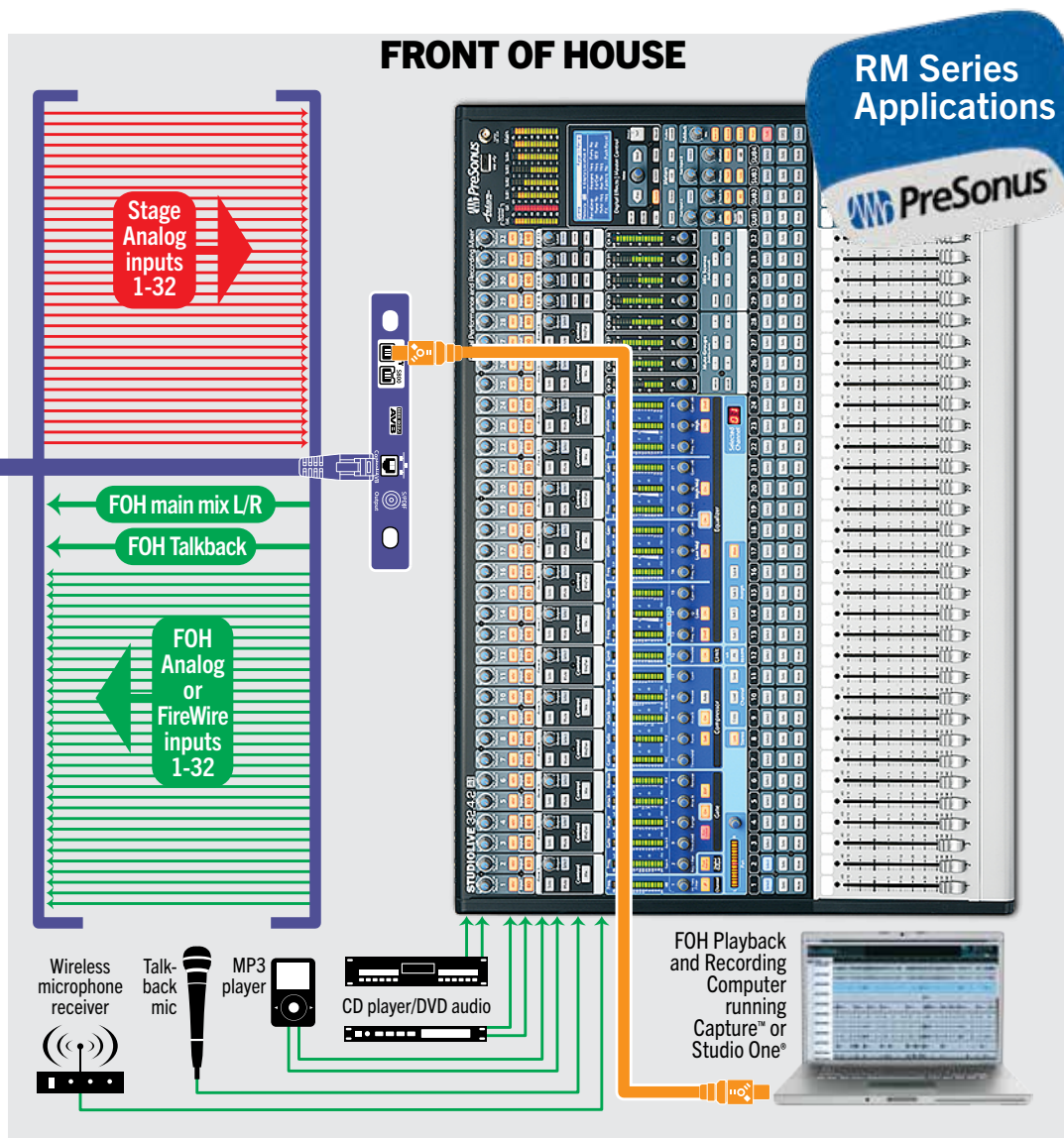
Option 2: No switch between RM Stage Box and StudioLive FOH Console
Wireless control connected via USB "dongle" on each StudioLive mixer

Monitor Mix Touch Screen Control Computer (UC Surface™)

iPhones running QMix-AI

iPad running SL-Remote-AI

WAP

IEEE 802.1 AVB

RM16AI or RM32AI

SL-AVB-MIX option card (included!)

SL-AVB-MIX option card

StudioLive 16.4.2AI, 24.4.2AI, or 32.4.2AI

Any StudioLive AI family mixer can be used as a remote stage IO, including the RM series rack mixers. Since the RM series is a complete mixer in a stage box form factor it can be used both as remote IO and a complete monitor mixer.

Control for the RM mixers is done via network control only. This can be done with either a wired Ethernet connection or wirelessly with the included USB Wi-Fi dongle.

NOTE: Recording via Ethernet (Dante or AVB) requires a wired Ethernet connection for recording and control (control will not work with the USB Wi-Fi dongle used simultaneously with a wired Ethernet connection).

Gain sharing — coming soon

StudioLive AI mixers will support automatic gain compensation to manage gain sharing with shared inputs on a Dante or AVB network. When gain compensation is activated on an input, any change to the preamp gain on that input will also apply digital trim to compensate for the gain change resulting in consistent gain staging for all listeners on the network.

Since the compensation happens at the input of all StudioLive AI mixers (including RM rack mixer), it's not necessary for other mixers on the network to compensate for changes in the preamp gain.

This means that any mixer or device from any manufacture on the network will benefit from PreSonus StudioLive gain compensation.

Remote Dante stage box — coming 2015

StudioLive AI mixers can be networked together using the Dante option card. When connected on a Dante network the mixers can be used to share inputs and mixes to deliver remote IO workflows.
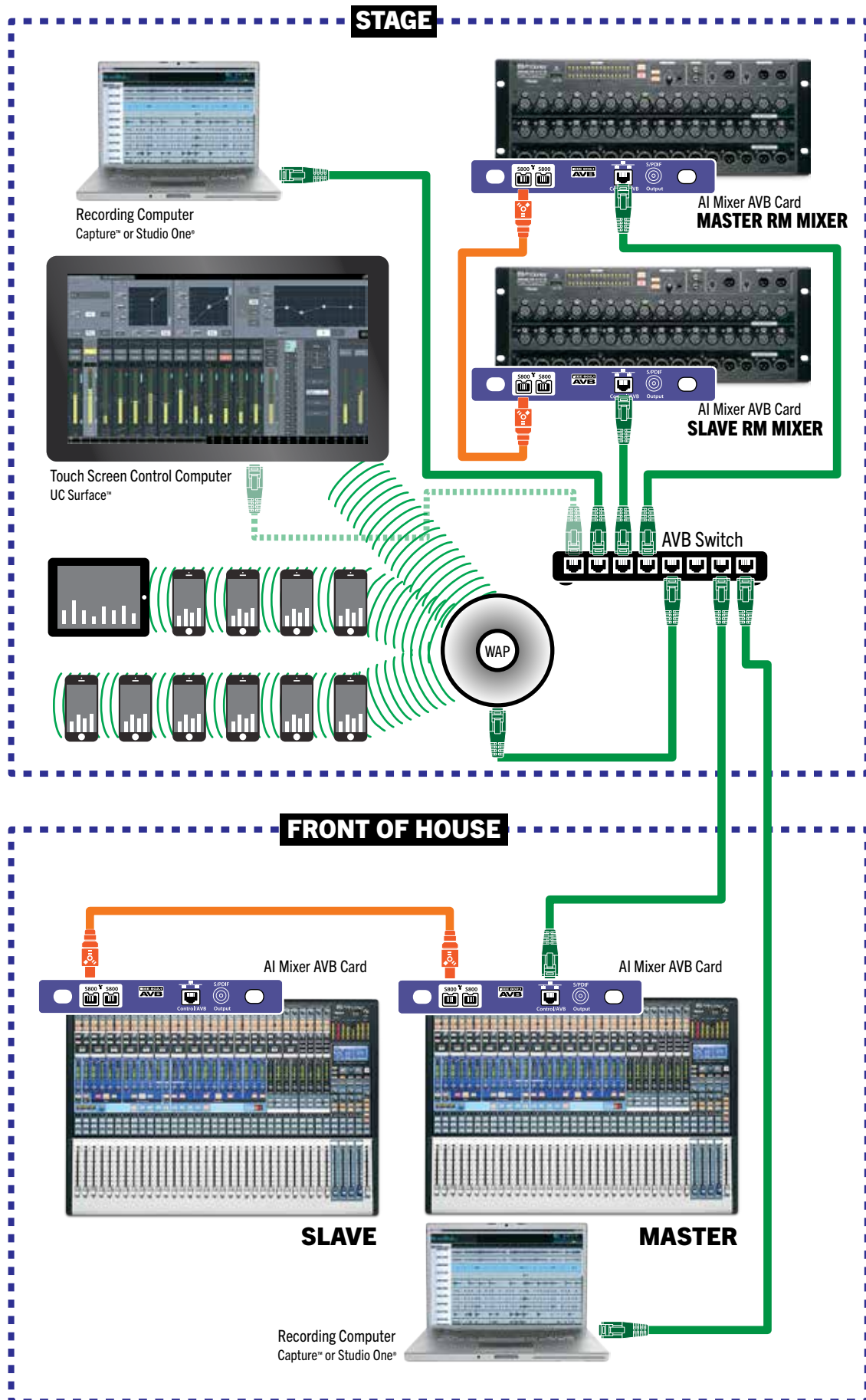
Dante recording can be done using the Dante Virtual Sound Card software and drivers for Mac and PC (included with the purchase of the Dante option card). Visit Audinate for more information on the Dante virtual sound card https://www.audinate.com/products/software/dante-virtual-soundcard

Wireless control: While the mixer does not support simultaneous wireless and Dante Ethernet connectivity you can connect a control computer wirelessly using a wireless access point connected to your network switch. Note: in order to use a wireless access point on a Dante network special care must be taken to filter the Dante packets and avoid flooding the wireless network. Please refer to the Audinate "Configuring ACL filtered VLANs for Multicast Traffic Management" document.

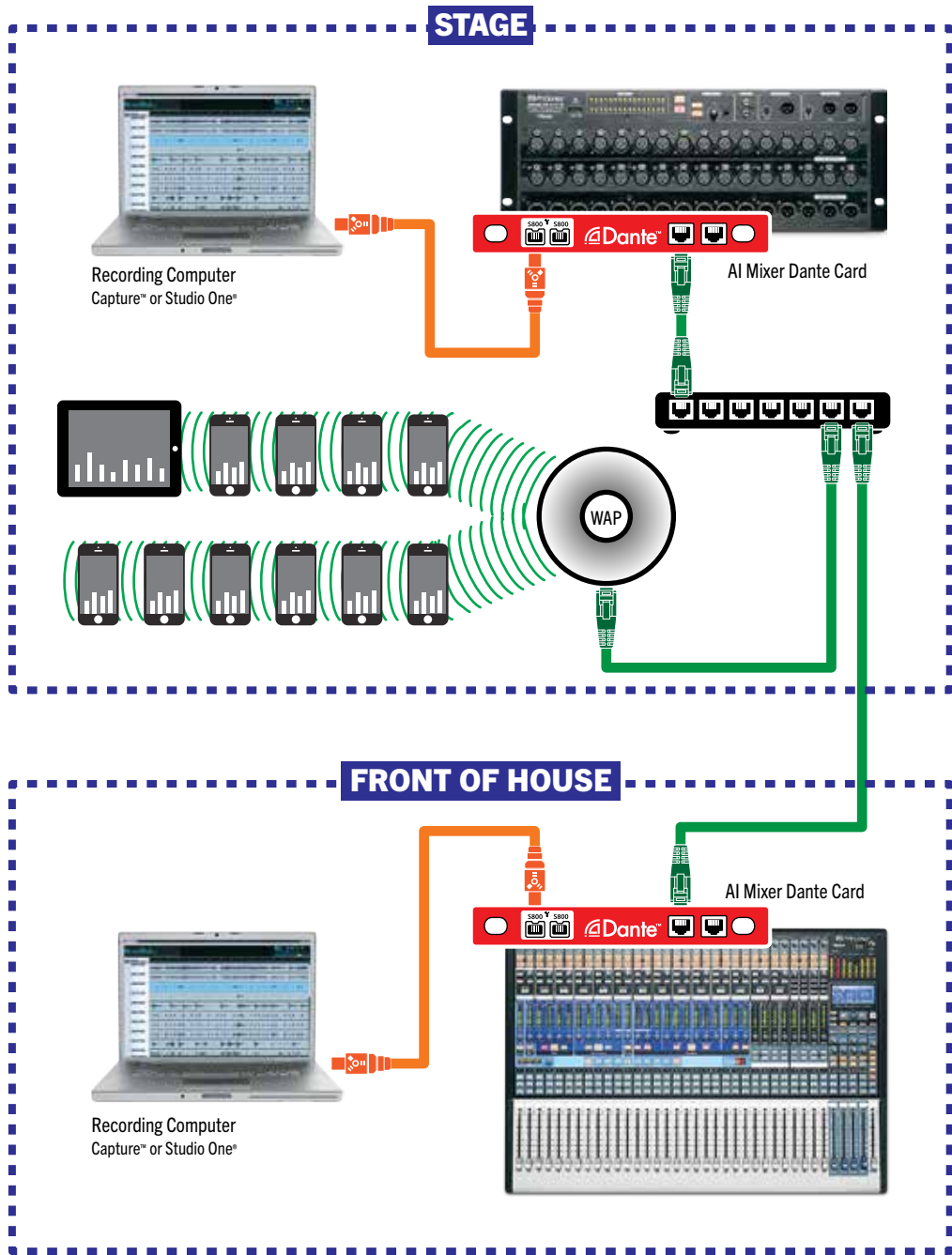**Remote AVB Stage Box — AVAILABLE NOW! AVB Recording coming 2015**

STAGE

Recording Computer
Capture™ or Studio One®

AI Mixer AVB Card
MASTER RM MIXER

S800 S800 AVB S/PDIF Output Control/AVB

Touch Screen Control Computer
UC Surface™

AI Mixer AVB Card
SLAVE RM MIXER

S800 S800 AVB S/PDIF Output Control/AVB

AVB Switch

WAP

FRONT OF HOUSE

AI Mixer AVB Card

S800 S800 AVB Control/AVB S/PDIF Output

AI Mixer AVB Card

S800 S800 AVB Control/AVB S/PDIF Output

SLAVE

MASTER

Recording Computer
Capture™ or Studio One®

Dante™ Remote Stage Box — Coming 2015

Wired Ethernet Control + FireWire Recording	Dante Audio Transport	STAGE BOX

STAGE

Recording Computer
Capture™ or Studio One®

AI Mixer Dante Card

WAP

FRONT OF HOUSE

AI Mixer Dante Card

Recording Computer
Capture™ or Studio One®

Ethernet
Wi-Fi
FireWire 800

Dante™ Remote Stage Box — Coming 2015

| Wired Ethernet Control + **Dante** and / or FireWire Recording | **Dante Audio Transport** | **STAGE BOX** |

STAGE

Recording Computer
Capture™ or Studio One®

AI Mixer Dante Card

WAP

Touch Screen Control Computer
UC Surface™

FRONT OF HOUSE

AI Mixer Dante Card

Recording Computer
Capture™ or Studio One®

Ethernet

Wi-Fi

FireWire 800
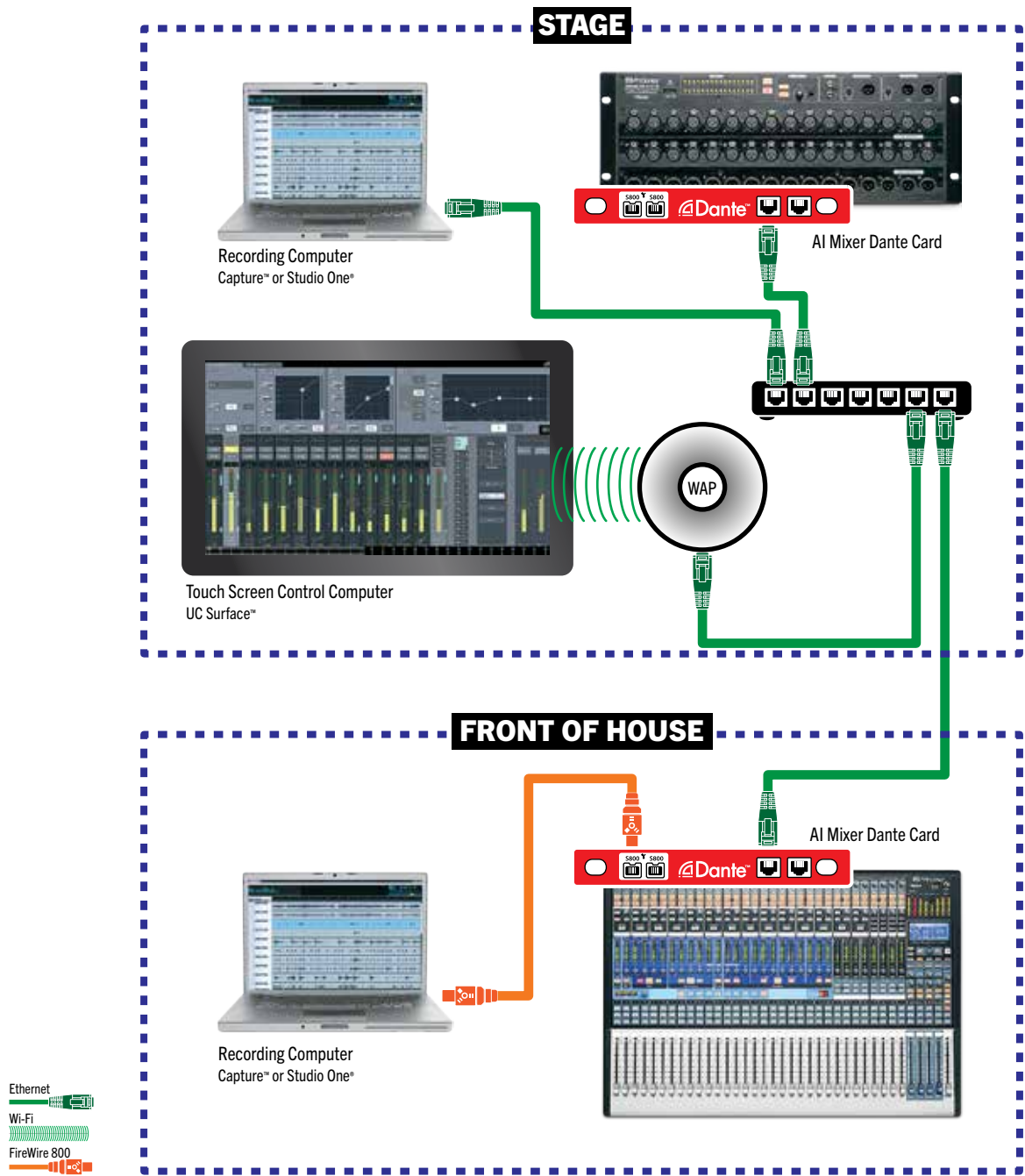
Dante™ Remote Stage Box with RM Cascading — Coming 2015
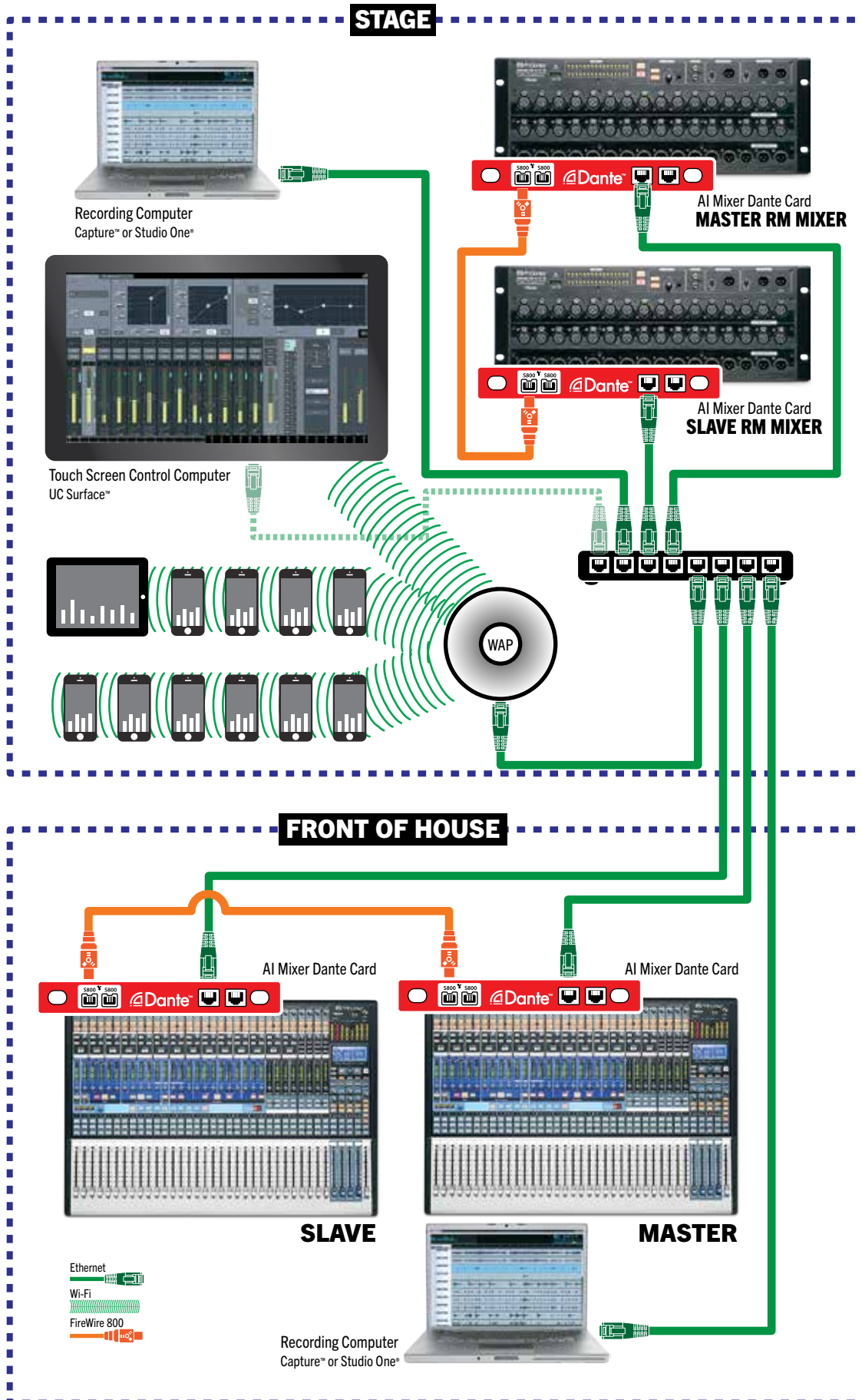
STAGE

Recording Computer
Capture™ or Studio One®

AI Mixer Dante Card
MASTER RM MIXER

AI Mixer Dante Card
SLAVE RM MIXER

Touch Screen Control Computer
UC Surface™

WAP

FRONT OF HOUSE

AI Mixer Dante Card

AI Mixer Dante Card

SLAVE

MASTER

Ethernet

Wi-Fi

FireWire 800

Recording Computer
Capture™ or Studio One®

Control for the RM mixers is done via network control only. This can be done with either a wired Ethernet connection or wirelessly with the included USB Wi-Fi dongle.

NOTE: Recording via Ethernet (Dante or AVB) requires a wired Ethernet connection for recording and control (control will not work with the USB Wi-Fi dongle used simultaneously with a wired Ethernet connection).

Cascading is currently only supported via a FireWire connection between two mixers.

Multiple AI Console & RM Dante Networked Mix Systems — Coming soon

Dante recording can be done using the Dante Virtual Sound Card software and drivers for Mac and PC

(included with the purchase of the Dante option card). Visit Audinate for more information on the Dante virtual sound card https://www.audinate.com/products/software/dante-virtual-soundcard

Wireless control: While the mixer does not support simultaneous wireless and Dante Ethernet connectivity you can connect a control computer wirelessly using a wireless access point connected to your network switch.

Note: in order to use a wireless access point on a Dante network special care must be taken to filter the Dante packets and avoid flooding the wireless network. Please refer to the Audinate "*Configuring ACL filtered VLANs for Multicast Traffic Management*" document.

Multiple AI Console & RM AVB Networked Mix Systems — Coming soon

AVB recording can be done with a compatible Mac computer using the built-in Core Audio support. Any Mac computer with a Thunderbolt port running OS 10.9 or later is supported. AVB recording to a PC currently requires 3rd party Ethernet cards and drivers.

Wireless control: While the mixer does not support simultaneous wireless and AVB Ethernet connectivity you can connect a control computer wirelessly using a wireless access point connected to your network switch. Note: because AVB switches are designed to manage the AVB traffic along with standard network traffic there's no need for special configuration to support a wireless access point.
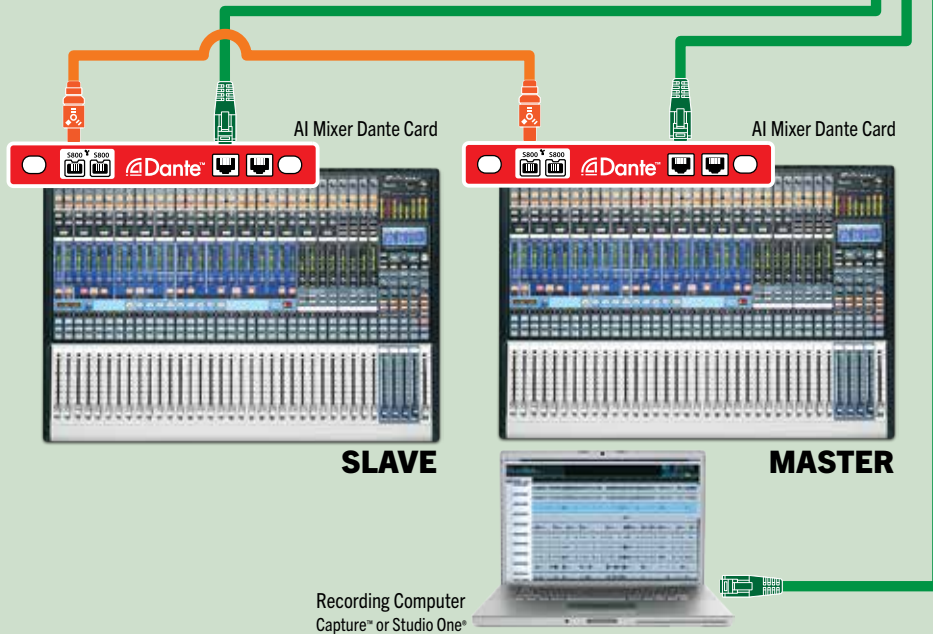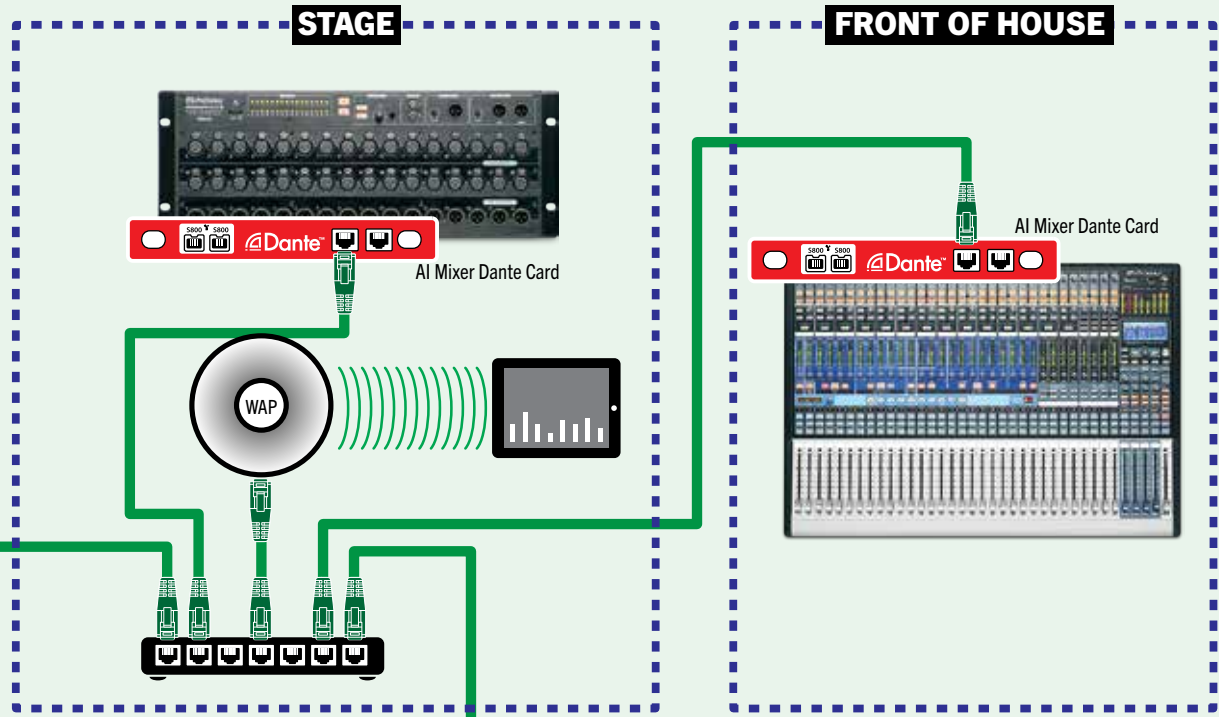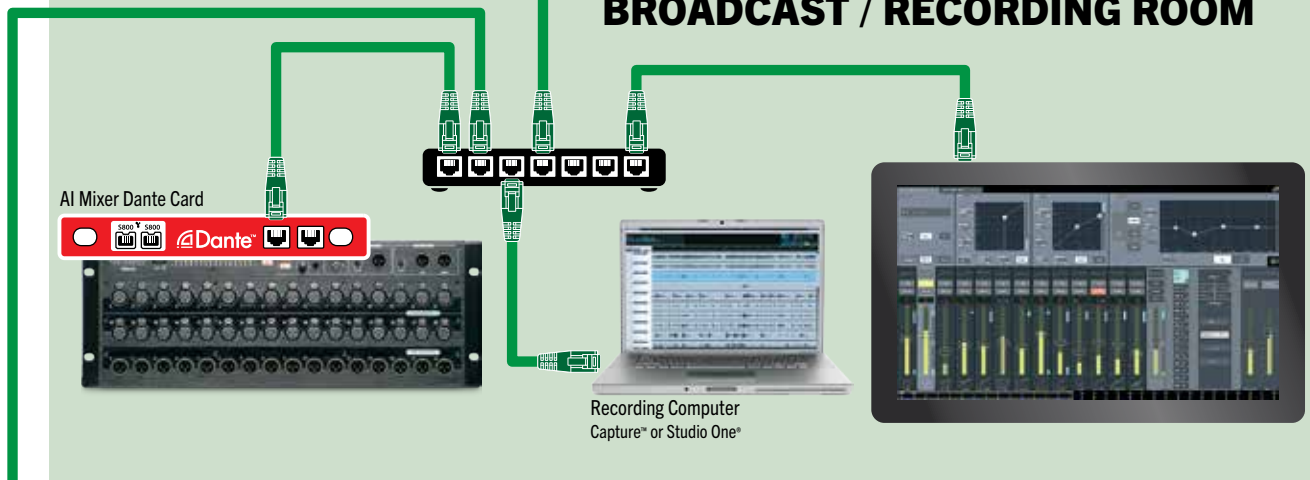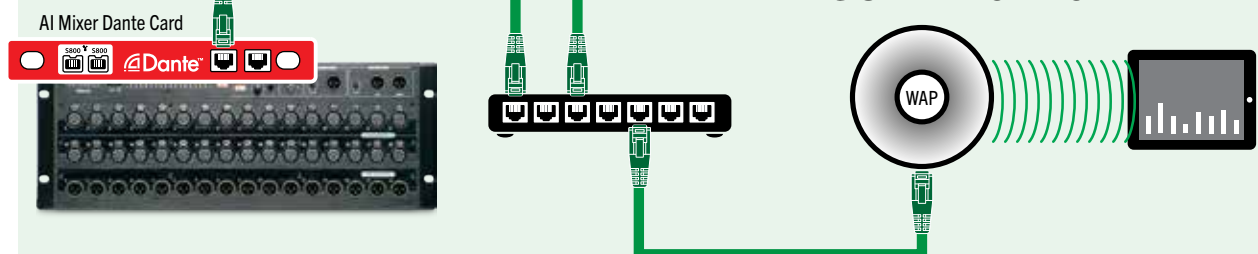
MAIN PERFORMANCE ROOM

STAGE

Touch Screen Control Computer
UC Surface™

AI Mixer Dante Card
MASTER RM MIXER

AI Mixer Dante Card
SLAVE RM MIXER

WAP

FRONT OF HOUSE

AI Mixer Dante Card

AI Mixer Dante Card

SLAVE

MASTER

Recording Computer
Capture™ or Studio One®

SMALL PERFORMANCE ROOM

STAGE

AI Mixer Dante Card

WAP

AI Mixer Dante Card

FRONT OF HOUSE

BROADCAST / RECORDING ROOM

AI Mixer Dante Card

Recording Computer
Capture™ or Studio One®

MOBILE PERFORMANCE / RECORDING RIG

AI Mixer Dante Card

WAP

MAIN PERFORMANCE ROOM

STAGE

Touch Screen Control Computer
UC Surface™

AI Mixer AVB Card
MASTER RM MIXER

AI Mixer AVB Card
SLAVE RM MIXER

WAP

AVB Switch

FRONT OF HOUSE

AI Mixer AVB Card

AI Mixer AVB Card

SLAVE

MASTER

Recording Computer
Capture™ or Studio One®

SMALL PERFORMANCE ROOM

STAGE

AI Mixer AVB Card

WAP

FRONT OF HOUSE

AI Mixer AVB Card

AVB Switch

BROADCAST / RECORDING ROOM

AI Mixer AVB Card

AVB Switch

Recording Computer
Capture™ or Studio One®

MOBILE PERFORMANCE / RECORDING RIG

AI Mixer AVB Card

AVB Switch

WAP

This area displays the input channels and fader levels for the selected mix, multiple channels at a time. Just "swipe" left or right to see other channels.

EQ micro view. Touch or click to select the associated channel and bring up the Fat Channel.

Solo
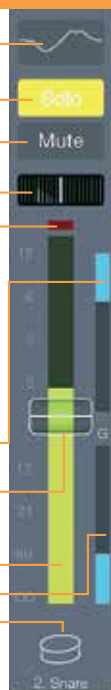
Mute

Pan

Clipping Warning

Compressor gain-reduction meter

Channel fader. Controls the channel level for the selected mix.

Input meter

Gate gain-reduction meter

Channel number, name, and type icon. Selects the associated channel and brings up the Fat Channel.

UC surface

We chose the term "battle-ready" to describe UC Surface because it's the first on-screen mix control application to truly handle the spontaneous and often chaotic demands of live mixing.

All primary mixing functionality is at your fingers without the need to navigate complex views or deep menus.

Displays automatically change context depending on what you're trying to adjust.

And you can see all critical level functions at a glance.

You can simultaneously run Front of House from a touch screen, mix monitoring from a laptop to the side or on-stage and also roam around the venue with an iPad.

Flex Master Channel Strip

The Flex Master channel strip shows the master channel for the selected mix. For example, when Mix 3 is selected, the Flex Master is the main output for Mix 3.

EQ micro view. Selects the associated Mix master and brings up the Fat Channel.

Solo

Mute

GEQ or **FX Edit.** Opens the associated graphic EQ or effects editor in the Fat Channel area.

Clipping warnings.

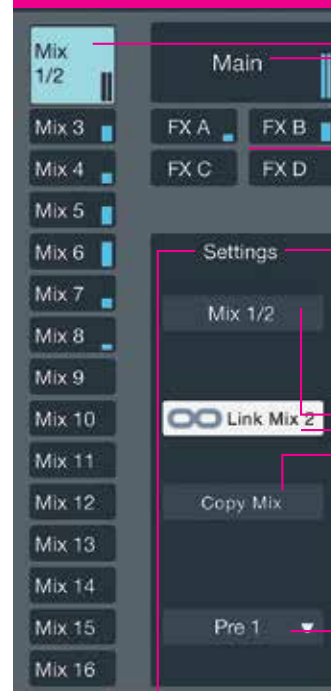**Compressor** gain-reduction meter

Mix fader

Output meter

Gate gain-reduction meter

Mix number, name, and type icon. Selects the associated Mix master and brings up the Fat Channel.

Mix Selection Area

This is the primary navigation area for RM mixers. Here you select the mix that's currently being controlled by the channel faders. This is also where you'll find the settings for each mix.

Mix selection buttons

Main Mix Select button

FX Mix selection buttons

**Mix** settings and **Filter Groups** area includes…

Mix name. Select to rename.

Stereo Link. Select to link two adjacent mixes for stereo operation.

Copy/Paste. Copies the currently selected mix so you can paste into other mixes.

Mix Position. Selects routing position for the selected mix (Pre 1, Pre 2, Post).

FX Settings. When an FX mix is selected, this area provides quick access to all FX mutes and Tap Tempo buttons for the delay effects.
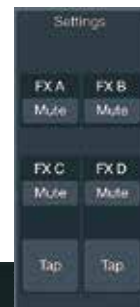
The Meter Bridge shows the input meters for all available channels. A highlighted window shows the channels that are currently displayed in the input channel area. You can use the Meter Bridge to navigate to a specific channel by selecting the channel to "jump" the input channel view to that area or drag the highlighted window to scroll to that area. You can also swipe the input channel area to scroll through the available channel, and the highlighted window in the Meter Bridge will follow your location.

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