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**USER GUIDE
F1 AURA⁺**

Welcome

Thank you for making Fishman a part of your acoustic experience. We are proud to offer you the finest acoustic amplification products available; high-quality professional-grade tools to empower you to sound your very best. We are confident **F1 Aura+** will both enhance and inspire your music making.

Despite its simple and clean appearance, **F1 Aura+** features a powerful set of tone shaping controls and programmability. We urge you to read through this user guide and spend some time getting familiar with its operation, so that you may easily realize the system's full potential.

Aura Acoustic Imaging Technology uses digital algorithms developed in Fishman's audio laboratories to restore a studio-miked sound to an acoustic instrument. To achieve this, we've recorded this instrument using world-class microphones and techniques to capture an "Image" of the natural sound that it emits when miked in a professional studio. This Image, when recorded direct or played through an amp, mixer or PA, blends with the undersaddle pickup to produce an incredibly accurate recreation of the original recording.

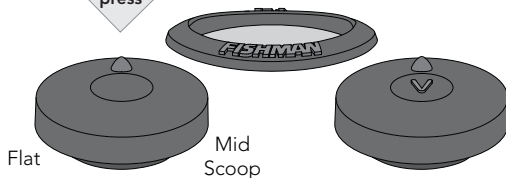
Quick Start

Before you begin, set the controls as shown:

- 1. Plug in** • Use a ¼-inch instrument cable.
- 2. Tune up** • Press and hold the **Volume** knob until the tuner comes on. When engaged, the Tuner mutes the output. Press **Volume** to exit Tuner.
- 3. Turn up** • Raise the **Volume** to a desirable level.
- 4. Select an Image Preset** • Press the **Tone** control repeatedly to select presets 1, 2 and 3. Press again to select the dry pickup (which is displayed as "P").
- 5. Adjust Tone** • Turn the **Tone** control clockwise to blend in a "mid-scooped" tone with emphasized bass & treble and reduced midrange.

Quick Start Controls

3 Image Presets
& dry pickup

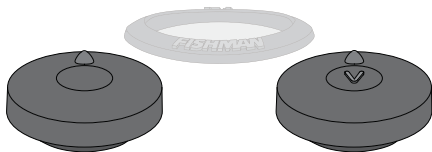


Tone Control

Turn to adjust **Volume**
Press to toggle **Phase**
Hold for **Tuner**

Easy Mode

When shipped from the factory, **F1 Aura+** offers a simple set of user controls called **Easy Mode**. This mode allows you to quickly get a feel for the tonal possibilities of **F1 Aura+** while providing the most important features you'll need every day.



Tone: turn to adjust mid scoop

Preset: press repeatedly for
preset 1, 2, 3, dry pickup

Volume: turn for volume

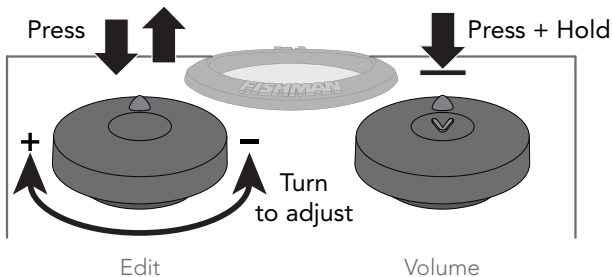
Tuner: press + hold 2 seconds
press to exit tuner

Phase: press to toggle

Multi-function Controls

With **F1 Aura+**, both the **Edit** and **Volume** knobs contain a momentary switch. So, in addition to turning a knob, pressing down on the knob will gain access to one or more features.

For this reason, this guide will refer to knob actions as: *turn*, *press*, or *press+hold*. Refer to the chart on page 19 for a quick reference of the various features.



Performance Mode

For the more adventurous player, we've created a much deeper control interface called **Performance mode**. This mode gives you full access to an extensive set of tone shaping controls. And to make things easier while you perform, we've grouped some controls into **Play** and the rest into **Edit**. Play and Edit are described on the following pages.

Entering Performance Mode

F1 Aura+ is shipped from the factory to power up in Easy Mode (page 6). To change the preamp to power-up into Performance Mode:

1. *Press + hold* the **Edit** knob (Tone control) while plugging in the guitar. Continue to hold the **Edit** knob down when the tuner displays the letter "**R**" and then the letter "**P**".
2. While still holding the **Edit** knob, press the **Volume** knob. Release both knobs. Performance mode is selected when the "**P**" stops flashing and the unit returns to normal operation.

Play vs. Edit

Play

Once in Performance Mode, plug in your instrument and it powers up into Play. In Play, **Volume**, **Blend** and **Phase** can be adjusted. The chromatic **Tuner** and the automatic **Anti-Feedback** circuit can also be activated. The Tone control is now referred to as the Edit knob.

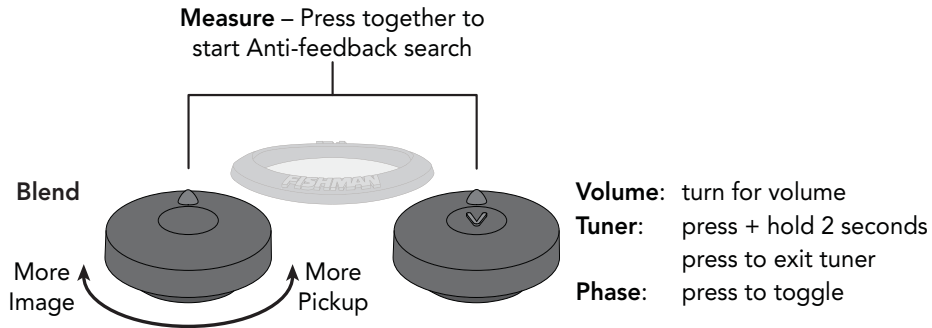
Edit

Press and release the **Edit** knob to enter Edit; the tuner's green in-tune LED will light solid. Once in Edit, press the **Edit** knob repeatedly to step through the parameters. Each parameter is displayed using a single letter to represent its function (see page 19). Adjust its value by turning the **Edit** knob. A number is displayed and the tuner's sharp/flat lights show positive or negative values.

*Note: **F1 Aura+** is programmable and automatically saves your settings.*

To exit Edit and return to Play, wait 15 seconds for the display to go dark, or *press + hold* the **Edit** knob for 2 seconds. You may also immediately exit by simultaneously pressing both the **Edit** and **Volume** knobs.

Play Controls



Volume

Turn **Volume** • For the cleanest noise-free sound, set **Volume** as high as possible without causing your amp or mixer to distort.

Phase

Press and release **Volume** • Use the **Phase** setting to improve bass response at low volume and suppress feedback at high volume. Press the **Volume** knob several times and leave it in the position most pleasing to your ear.

Tuner

Press+hold **Volume** 2 seconds to turn tuner on.
Press **Volume** once to turn it off.

This digital chromatic tuner accommodates all tunings and mutes the output when engaged.

It can be activated without an instrument cable connected, in which case it will turn itself off after 90 seconds of inactivity.

The tuner is calibrated to A = 440.

note raised
1/2 step



"A#" note
in tune



"A" note
below pitch



"A" note
above pitch

Play Controls (cont.)

Blend

Turn **Edit** • Turn the **Edit** knob without pressing on it and the balance between pickup and Image is adjusted. A setting of **P** = 100% Pickup signal; **0** = a 50/50 pickup/Image blend; **I** = 100% Image signal.

Suggestions

- For live performance try backing off the Image by setting **Blend** to about 2 or 3 (about 65% pickup).
- For recording, try blending in more Image for a realistic acoustic sound.

Automatic Anti-Feedback

Use this search-and-destroy **Anti-Feedback** circuit in addition to **Phase** to control feedback during a performance. **F1 Aura+** automatic **Anti-Feedback** circuit can apply up to three separate notch filters, which are very precise tone controls that reduce only a tiny piece of the audio band. When activated, the filter locates and reduces the problematic resonances associated with feedback.

While the **Anti-Feedback** control is very effective, it's best if you spend some time while setting up before a performance and catch any issues before you begin to play. With some practice, you'll find you can also use it to "fix" any resonant notes that may stand out in a particular venue.

Using the automatic **Anti-Feedback** control:

1. Press + hold **both Edit and Volume** for 2 seconds. The tuner display will flash a "1" to indicate it is searching for the first feedback.
2. Turn up the **Volume**, then either dampen the strings while tapping the body or play the troublesome note until the feedback begins. The filter will automatically identify and eliminate the feedback. The "1" in the display will now light solid.
3. At this point, you may continue to turn up your **Volume** as in step 2 to identify up to two more problematic resonances. Each is indicated via a flashing "2" or "3" during the search, in turn lighting solid when the resonance has been identified.
4. You may press the **Volume** knob at any time to cancel the search. The circuit will hold the notched frequenc(ies) in memory until the process is repeated.

Edit Controls

Press **Edit** knob to enter Edit; the tuner's green in-tune LED will light solid.

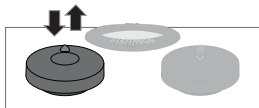
Once in Edit, press the **Edit** knob repeatedly to step through the parameters. Each parameter is displayed using a single letter to represent its function.

Adjust its value by turning the **Edit** knob. A number is displayed and the tuner's sharp/flat LEDs indicate positive/negative values.

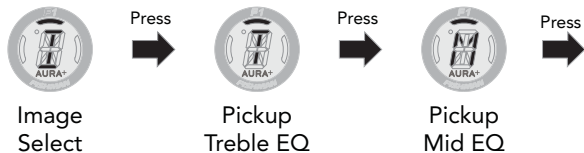
*Note: **F1 Aura+** is programmable and automatically saves your settings.*

To exit **Edit**, wait 15 seconds for the display to go dark, or press + hold the **Edit** knob for 2 seconds. You may also immediately exit by simultaneously pressing both the Edit and Volume knobs.

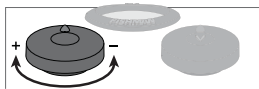
1. Press to enter Edit.



Press **Edit** repeatedly to select next parameter.



2. Turn **Edit** to adjust parameter value.



The sharp and flat LEDs indicate + or - values.



3. To exit Edit, wait 15 seconds, or press + hold **Edit** for 2 seconds. You may also immediately exit by simultaneously pressing both the Edit and Volume knobs.

Edit Controls (cont.)

Image Select

F1 Aura+ is factory loaded with Images created especially for this instrument. Each Image corresponds to a different microphone type and position. Contact the guitar's manufacturer to identify the microphone associated with each Image.

Pickup EQ

Bass, Mid and Treble controls allow you to fine tune the pickup signal. The pickup tone controls are designated by the capital letters **T**, **M**, **B**, corresponding to **Treble**, **Mid**, and **Bass** respectively.

Blend

Blend adjusts the balance between the pickup and Image and is represented by the letter **X**. A setting of **P** = 100% Pickup signal; **0** = a 50/50 pickup/Image blend; **I** = 100% Image signal.

Compressor

The **Compressor (C)** parameter adjusts several settings within a sophisticated automatic leveling circuit. As you increase the value, your overall playing dynamics become increasingly limited, making softer notes louder while controlling loud spikes in your playing. This can be helpful in performances where you desire a more even level to your playing. At its maximum setting, there may be some overall increase in the output level.

Anti-Feedback

This parameter, indicated with the letter **A**, allows you to temporarily disable the automatic Anti-Feedback filter if desired. **O** = Off, **I** = On. See page 12 for details on how to use the Anti-Feedback circuit.

Edit Controls (cont.)

Image EQ

You can program unique EQ settings for each of the Images. Unlike other Edit parameters, unique tone settings are automatically saved with each Image and recalled when an Image is selected. In order to prevent dramatic or unwanted changes, the Image EQ's **Treble**, **Mid**, and **Bass** controls are separated from the Pickup EQ and located "under" the **Volume** knob in **Edit**. They are identified by a lowercase **t**, **m**, **b**, corresponding to **Treble**, **Mid**, and **Bass** respectively.

To EQ an Image:

1. Adjust the **Blend** control so that you are hearing 100% Image (page 12)
2. Press **Edit** knob to enter Edit and select an Image
3. Press the **Volume** button to select the **Image Treble** EQ (**t**)
4. Turn the Edit knob to boost or cut the **Image Treble** EQ
5. Repeat steps 3 & 4 to adjust the **Image Mid** (**m**) and **Image Bass** (**b**)

Edit Parameters

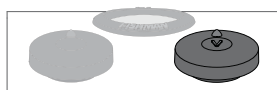
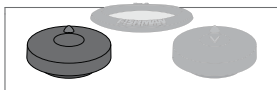


Image Select



Pickup Treble EQ



Pickup Mid EQ



Pickup Bass EQ



Pickup/Image Blend



Compressor



Anti-Feedback



Image Treble EQ



Image Mid EQ



Image Bass EQ

Power

Plug in the guitar, and **F1 Aura+** switches on. To conserve the battery, remove the instrument cable from the guitar when the system is not in use.

The tuner display will flash at power-up to tell you the preamp is on.

Low Battery Indicator

When the tuner flashes “**L**” once every three seconds, you have approximately 1.5 hours before the battery is exhausted. Change it at the next opportunity.

Restoring Easy Mode

There may be times when you want to return **F1 Aura+** to Easy mode without losing your Performance mode settings. To do this:

1. *Press + hold* the **Edit** knob while plugging in the guitar. Continue to hold the **Edit** knob down when the tuner displays the letter "**R**" and then the letter "**I**".
2. While still holding the **Edit** knob, press the **Volume** knob. Release both knobs. Easy mode is selected when the "**I**" stops flashing and the unit returns to normal operation.

Restore Factory Defaults

1. *Press + hold* the **Edit** knob while plugging in the guitar. Continue to hold the **Edit** knob down when the tuner displays the letter "R".
2. Continue to hold the **Edit** knob, then press the **Volume** knob. Release both knobs. Factory reset is complete when the "R" stops flashing and the unit returns to normal operation.

Defaults:

- EQ for all Images reverts to flat
- Pickup EQ reverts to flat
- Blend is set to 50/50
- Compressor is set to minimum
- Anti-Feedback frequency is reset to 100Hz
- Image selector reverts to Image #1

Electrical Specifications

Digital Signal Path:	
A/D, D/A conversion:	24-bit
Signal Processing:	32-bit
Typical in-use current consumption @ 9VDC:	18mA
Typical 9V lithium battery life:	54 hours
Typical 9V alkaline battery life:	27 hours
Nominal output impedance:	1k Ohm
Recommended load impedance:	10k Ohm and up
Maximum output level (onset of clipping):	+5dBV
Baseline noise:	-92dBV
Dynamic Range:	97dB
Bass control:	± 12 dB @ 70Hz
Midrange control:	± 12 dB @ 1kHz
Treble control:	± 12 dB @ 6.5kHz

All specifications subject to change without notice.

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