

AMP FARM 4.0



A guide to the features and functionality of the Line 6 Amp Farm plug-in

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Introduction

Line 6 Amp Farm[®] 4.0 is a 64-bit plug-in, available in AU, VST[®] and AAX formats, for macOS and Windows[®] DAW host applications. Amp Farm supports up to 192kHz sample rates, and mono & stereo channel formats.

Since its introduction in May 1998, Amp Farm (along with its hardware brother, the POD[®] amp modeling processor) sparked a revolution in the world of guitar recording. Amp Farm quickly became the trusted guitar recording tool for many of the world's top Avid[®] Pro Tools[®] Digital Audio Workstation (DAW) users, and an essential part of hundreds of platinum albums, mega-budget movie soundtracks, premiere TV music productions—and recording projects of all shapes and sizes. Amp Farm version 4.0 now makes this source of guitar amp modeling history available to users of all popular DAW software!



The Line 6 Amp Farm Plug-in

What's New in Amp Farm Version 4?

Amp Farm was originally conceived as a Pro Tools TDM plug-in, meaning, it was available only for Pro Tools users, and required additional DSP processing hardware to operate. Version 4.0 introduces compatibility for qualified AU, VST and AAX plug-in DAW host applications such as Cubase® 9 and Pro Tools® 11 software and higher. It sports the exact same patch format, feature functionality and user interface as its predecessor, but operates "natively" on the host processor.

You still get the same great delay and effects models as previous versions of the Amp Farm plug-in, and for Pro Tools users, your old sessions and presets will still sound and function as expected. (Note that Amp Farm 4.0 presets are not compatible with earlier Amp Farm versions.)

Amp Farm Features

Amp Farm features include:

- Over a dozen Amp models that faithfully recreate the tone and feel of a world class collection of guitar combos and heads, with simple amp style control that every guitarist understands.
- Dozens of dramatically diverse Cab models, from a tiny 2-inch to massive vintage 4x12 speaker cabinets, for easy mix and match with any Amp model.
- Selectable Mic models capture classic cabinet miking techniques to provide rich, dynamic live sound right in your DAW software.
- Ability to process live guitar inputs or tweak pre-recorded tracks, right up to the final mix.
- Adds tube warmth, dynamic distortion, or speaker cabinet life to any audio track.
- Can be used just like a guitar amp, along with the Line 6 Echo Farm[™] plug-in, or as a processor for all your other instruments and audio tracks.

System Requirements and Compatibility

To use Amp Farm, you need the following:

- A 64-bit Digital Audio Workstation host application that supports AAX, AU, VST3 or VST2 plug-in formats
- An iLok.com account for managing iLok licenses
- An optional iLok USB Smart Key (version 2 or 3)

Please visit <u>https://line6.com/</u> for the latest compatibility information.

Technical Support

For support inquiries please visit <u>https://line6.com/support</u>.

About Line 6

Line 6 is the world leader in modeling technology for guitarists. In addition to being one of the world's largest guitar amp manufacturers, we make Variax[®] digital modeling electric guitars, critically-acclaimed Helix[®] and POD[®] guitar workstation hardware, the world's lowest latency digital wireless system, and more! Learn about it all at https://line6.com.

Installation and Authorization

The installer for the Amp Farm plug-in can be downloaded from the Line 6 website's software downloads page (<u>https://line6.com/software/</u>). Download the installer to a convenient location on your system.

Installing the Amp Farm Software

Exit all DAW host and other multimedia applications before starting the Amp Farm software installation.

If using Pro Tools, make sure the Pro Tools application is already installed and has been launched at least once.

Mac:

- Download the Amp Farm plug-in installer for Mac and make sure the installer is uncompressed (.dmg).
- Locate and double-click the Amp Farm plug-in installer. Click the Customize button during installation and choose only the format(s) you want installed (AU, AAX, VST3, or VST2*).
- · Follow the on-screen instructions to complete the installation.

Windows:

- Download the installer for Windows and make sure the installer is uncompressed (.ZIP).
- Locate and double-click the Amp Farm plug-in installer. Customize installation and choose only the format(s) you want installed (AAX, VST3, or VST2*).
- · Follow the on-screen instructions to complete the installation

*NOTE: If your host DAW application supports VST3, it is

recommended that you do not also install the older VST2 format (VST2 is not selected by default). The VST2 format is offered for users that have host DAW applications that do not yet support VST3 plug-ins.

Authorizing the Amp Farm Software

The Amp Farm plug-in is authorized using the iLok USB Smart Key (iLok), manufactured by PACE Anti-Piracy. An iLok can hold hundreds of licenses for all of your iLok-enabled software. Once a license for a given piece of software is placed on an iLok, you can use the iLok to authorize that software license on any computer.

Line 6 purchase:

Once you've purchased the Amp Farm plug-in license from the Line 6 Store (<u>http://shop.line6.com/</u>), click the "Deposit" button within the iLok Deposits area of your Line 6 account (<u>https://line6.com/account/licenses/ilok/</u>) to post an authorization license for the software to your iLok.com account.

Avid purchase:

Once you've purchased the Amp Farm plug-in license from the Avid Store or Avid Marketplace (<u>https://shop.avid.com/</u>), your software's iLok authorization is deposited to your iLok account during the purchase process.

To download the Amp Farm license to your iLok:

- If you don't already have an iLok account, visit <u>https://www.ilok.</u> <u>com/</u> to sign up for one.
- · Log in to your iLok account at ilok.com.
- Follow the online instructions to transfer the license from your iLok account to your iLok USB Smart Key.

NOTE: You may also use the iLok *License Manager* software to transfer authorizations to your iLok Smart Key or to your computer system. Please visit ilok.com for more information about the iLok *License Manager*.

Removing the Amp Farm Software

If you need to remove the Amp Farm software from your system, follow the instructions below.

Mac:

Delete the Amp Farm files from the following directories:

- AAX: /Library/Application Support/Avid/Audio/Plug-Ins/Line 6
- · AU: /Library/Audio/Plug-Ins/Components/
- VST2: /Library/Audio/Plug-Ins/VST/Line 6
- VST3: /Library/Audio/Plug-Ins/VST3/Line 6

Windows:

- Choose Start > Control Panel (or Settings on Windows 10)
- Click Programs and Features (or System, then Apps & Features on Windows 10)
- · Select the Amp Farm plug-in from the list of installed applications
- Click Uninstall and follow the on-screen instructions to remove the Amp Farm plug-in (this uninstalls all plug-in formats)

Using Amp Farm

Now that you're all set for Amp Farming, we'll use the next few pages to go through setting up your system and the various Amp Farm controls.

Hardware Setup Recommendations

The level of the input signal entering the Amp Farm plug-in can affect the overall gain and saturation of your tones, therefore, it is essential to "gain stage" accordingly. It is important to note that most Amp Farm models are designed to receive "Instrument" level input signals, much like plugging an electric guitar directly into the actual amp we modeled. To follow are several tips for achieving the optimal signal level.

• For the most accurate results for recording "dry" electric guitar (or bass), we recommend that you plug directly into an audio interface with a "Hi-Z" or "Instrument" input (at least 300k Ω impedance; 1M Ω is ideal).

- For monitoring your input signal level (or for the playback level of any clips within your track), reference the level meter of your DAW software track on which Amp Farm is inserted. You'll want to strive for an input level of between -36 dB to -12 dB.
- If your audio interface offers input level adjustment, it is typically best to adjust it there to keep the recording level entering the plugin within this optimal range. If needed, you can adjust the plug-in's Input knob to fine-tune the level, however, adjusting this knob from the center "detent" position can result in a less-than-ideal signal quality.
- Guitars with active pickups may have a hotter output than traditional passive pickups. If your guitar utilizes active, or especially high output pickups, set your audio interface or preamp's input "pad" to on, if available.
- Got an old stomp box or preamp you want to run your guitar through before Amp Farm? No problem. Just observe the level setting precautions above. You can certainly use other plugins, inserted before or after Amp Farm (again, be aware of gain staging), within your DAW track to further sculpt your tone.

The Basics of Mouse Control

All the Amp Farm plug-in's knob controls are designed to be adjusted using a straight left-to-right or up-and-down mouse motion. Click on any knob and drag to the left or down to lower the parameter's value. Drag to the right or up to increase the value. For best results, avoid clicking and dragging a knob in a circular motion.

TIP: For most knob controls, simply double-click directly on the knob itself to reset it to its default value.

The Amp Farm buttons are generally configured for single-click operation. Click on a button to change the parameter to its opposite state, and click again to change it back.

Amp Farm Controls



Amp Farm plug-in window (Pro Tools)

- Input Knob The Input knob lets you adjust the signal level that is fed into Amp Farm (also see tips in the <u>"Hardware Setup</u> <u>Recommendations" on page 5</u>). Most of the time, you want to leave this control set to the center (unity gain) position, It's here to allow you to compensate for less-than ideal situations, or if you have no other good way to optimize your incoming guitar signal or previously recorded guitar track.
- 2. Master Volume The Master Volume knob sets the final output level of Amp Farm. Just adjust knob until for the desired output level, and be sure to avoid overloading plug-ins, sends, and/or Aux/Bus tracks downstream in the signal path.
- **3.** Amp Model Menu This menu is where you select the Amp model you would like Amp Farm to use.

- 4. Cab and Mic Model Menus The Cab menu works just like the Amp Model menu, selecting a speaker cabinet simulation to pair up with the current Amp model. The first half of the list includes our 3rd generation Cab models that allow you to additionally choose a mic from the Mic Model menu, and generally will give you the most realistic, dynamic live tones. The second half of the list includes the same Cab models as previous (2nd generation) versions of Amp Farm, which include a fixed mic model and offer an appeal all their own (the Mic menu is not selectable when one of these Cab models is in use).
 - Farm for your speaker simulation, you can select "None" in these menus to turn off Cab/Mic models within Amp Farm.
- 5. Noise Gate A Noise Gate is built right in to keep your noise floor under control, by attenuating signals that register below the detected input threshold. Set the THR (threshold) knob to where you want the gate to kick in. Setting it to 0 effectively deactivates the gate. Set the RLS (release) knob to determine the length of time the gate takes to release its applied gain reduction, as the signal exceeds the threshold. Too low a setting may result in a choppy sound, where the gate releases very fast (but maybe that's the effect what you want).
- 6. Drive Knob Each one of the Amp models includes a Drive knob. This takes the place of the familiar Volume knob, and controls how hard you're driving the chosen Amp model. Think of it like the input volume control on a non-master volume amp; the higher the setting, the more "dirt."
- 7. Other Amp Knobs & Switches The other knobs and switches that appear on-screen for a particular Amp model are set up to emulate the controls found on the actual amp on which its model is based. For amplifiers that feature a regular and high gain channel, we have provided a toggle switch that selects between the two. For some Amp models, a toggle switch may turn on or off a Tremolo circuit. Additionally, some Amp models, such as the Plexi Lead 100, include an Extra Gain toggle to give you the effect of patching your regular and high gain channels together for extra gain on input.

In general, the knobs and switches are set up to emulate, as nearly as possible, the effect of the similarly-labeled knobs, switches, and jacks on the original amps we modeled. For the complete story, check out "Model Descriptions – Which Amps are Modeled?" on page 8.

8. DAW Host Plug-in Controls - These top panel options are provided by the host application for effects plug-ins, typically offering preset selection, bypass, A/B "compare" functionality, automation options, and more. Please refer to your DAW host application's documentation for details.

Amp Farm Factory Presets

The Amp Farm plug-in comes with a number of Factory Presets to get you started. You can call up any of these presets from your host DAW application's preset menu, found within the top panel of the host's plugin window. (The exact position and navigation of this menu varies among hosts DAW apps, but typically appears as shown in the Pro Tools Plug-in Controls - see item #8 above.)

Host DAW applications also typically offer Save options that allow you to save your own, custom presets for Amp Farm, just as for other plugins. All of the plug-in's capabilities in this regard follow the your host application's standards, so please refer to your host's documentation for more details.

Track Setup

Amp Farm, like any effects plug-in, can be inserted on any audio track to process the input and recorded audio within the track. Additionally, Amp Farm can be inserted on any Auxiliary, Group, Effects, Bus, or Master type track to process the audio output of multiple tracks simultaneously (track types differ among host DAW applications, so please check your software's documentation). Most typical is simply to insert Amp Farm on an audio track, with your guitar signal as the input to the track. Pick an Amp model by clicking on the plug-in's Amp Model menu. Do the same in the Cab Model menu to change your speaker cabinet choice. If you have picked a Cab model from the first half of the list, you can also select a Mic model. Set your knobs and switches to taste. Hit record. Play a bit. Hit stop. Play back what you've recorded. Move the knobs around. Neat, isn't it?

Mix It Up

We encourage you to treat Amp Farm as just one more powerful tool to be used in combination with the others in your arsenal. For instance, running some EQ before Amp Farm is basically the same as using an EQ stomp box in front of a regular (hardware) guitar amplifier to sculpt your tone. Also, be sure to try the sound of a double or triple-dip of Amp Farm—running several instances in series or parallel to get the kind of multi-amp tone than many artists and producers have made one of their standard techniques for great studio guitar sound. This can be a great way to get the clear pitch definition and rich body of a nice clean tone, and still have the saturation of a heavily overdriven amp setup at the same time. And remember that if you were recording a non-software amp you would probably add some EQ and other effects at the board to sculpt the miked sound before committing it to tape or to your mix. Since the models are emulations of amps, the same goes for your Amp Farm tones.

Also, be sure to try the "Big Cab" options from the Cab Model menu. The Big Cabs are emulations, created using special EQ filter algorithms rather than physically modeling a miked speaker cabinet. These provide a big, beefy tone with a smoother frequency response. Try applying some narrow EQ bumps and notches after the Big Cabs to sculpt them into your own personal speaker tone.

Model Descriptions – Which Amps are Modeled?

To follow are descriptions of the actual classic amplifiers we modeled for the sounds within the Amp Farm plug-in.

1959 Fender Bassman

Based on* 1959 "Tweed" Fender® Bassman®

The classic Fender Bassman 4x10 combo was the amp that started it all—instant rock and roll tone. Originally a bass guitar amp, the Bassman became a Blues staple for 6-string guitarists. It has the fat bottom end you'd expect from a bass amp, but also has the Fender twang on the top. Incidentally, when Jim Marshall built his first amps with Ken Bran, they were heavily influenced by the early Bassman. The Bassman, like many of the amps modeled for Amp Farm, didn't have a master volume. So to get the kind of tone that the Bassman can deliver at higher gain settings, you had to crank it up loud enough to do some serious damage to anyone who might be standing close by. With Amp Farm, you can get that kind of tone at a bedroom or studio level—or through your headphones even! Try a drive setting of about 4 or 5 with the Amp Farm Tweed B-Man Amp Model—it's guaranteed to dredge up the best R&B licks you know.

1964 Fender "Blackface" Deluxe

Based on* 1964 "Blackface" Fender Deluxe Reverb®

The Holy Grail for many blues, country, and "roots" players has been a "blackface" Fender Deluxe Reverb combo. After listening to quite a few candidates for modeling, we stumbled upon an extremely cool '64 Deluxe. Most players love a Deluxe when it's turned up to about 7 for a nice gritty sound that cleans up when you back off your guitar's volume knob just a little. Notice how the tone control response changes as this Amp Model's Drive is changed; clean settings are crisp and present, while more driven settings will mellow the high end. This is typical of what you get from a Deluxe, and is nicely captured here. Tweaked up right, this tone will cut through and sing.

1967 Fender "Blackface" Twin

Based on* 1967 "Blackface" Fender Twin Reverb®

The classic blackface Fender Twin Reverb (in this case, a 1967 Twin) was a real workhorse. Everybody used it, from jazz and country players to serious rockers. (I remember seeing a band where both guitar players were using 6 Twins stacked in a pyramid. We were in the second balcony and it was REALLY loud, even all the way back here!) The Twin has a lot of tonal flexibility and is at home in a great many different situations. It never gets extremely overdriven and dirty, mostly just louder; a lot louder. With Amp Farm you can get a full range of Twin inspired sounds at any volume. This is the amp for the classic surf sound: turn up the tremolo, turn up your monitors, and look out for bikinis.

1960 Vox AC30

Based on* 1960 Vox® AC30

Vox amps owe much of their unique tone quality to a Class A power amp and were standard issue for English bands in the 60s. Brian May of Queen, Mike Campbell of Tom Petty's Heartbreakers, and The Edge of U2 have also used the classic AC30 to make their music. Vox amplifiers were actually one of the first brand of amplifiers designed specifically for electric guitar; the other companies essentially got their designs straight from the RCA Radio book. We were lucky enough to find what we are told was one of Bryan Adams' favorite AC30 amps for recording. Lenny Kravits happened to be using it the week before we began testing. It was one of the gems in a great collection of vintage amplifiers offered for rental in Los Angeles, where Line 6 is located.

We later bought this amp, and continued to hone our emulation of it to bring you the Amp model it inspired in Amp Farm. This is definitely a good place to start to get yourself some of those classic British invasion sounds.

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1966 Vox AC30 with Top Boost

Based on* 1966 Vox AC30, Top Boost

Music was changing in the 60s and guitarists were asking for more brilliance & twang. So the Jennings Company, makers of Vox amps, decided to add Treble and Bass controls (and an extra 12AX7 gain stage, incidentally). This additional circuit became known as Top Boost.

1965 Marshall JTM45

Based on* 1965 Marshall® JTM45

This Amp model is based on a JTM45 head with block logo (predates the "scrolled" Marshall logo), complete with a gold Plexiglas (Plexi) front panel. Although the sound normally associated with Plexi amps comes from the late 60s, the 50-watt version was the inspiration for this model. The JTM45 marked the beginning of Marshall's transition from a mellower tone to the distinctive bright "crunchy" sound of the later Marshall amps.

1968 Marshall Plexi

Based on* 1968 Marshall Plexi Lead 100

The infamous Marshall Plexi is coveted by tone connoisseurs the world over. By this time (ca.1968) Marshall had completely changed the circuitry away from the Fender 6L6 power tube heritage and moved to an EL34 tube; another major tone difference was due to the necessary output and power supply transformer changes. (See, we told you we spent some time looking into all this stuff.) All this mucking about added up to create a tone forever linked with Rock Guitar. Amps of this era didn't have any sort of master volume control, so to get this sound you'd have to crank your "Mark III Super Amp" to max—just the thing to help you really make friends with the neighbors. Hendrix used Marshall amps of this era; 20 years later Van Halen's first two records owed their "brown sound" to a Marshall Plexi. In order to get a crunch sound out of a Plexi you would likely crank up the input volume and the tone controls (to 10!). You'll find that the Amp Farm model, in keeping with our basic "makeit-sound-a-whole-lot-like-the-original" concept, is set up to do pretty darned near the same thing. Max out the Mid and Treble knobs and turn Bass to about 9 or 10 o'clock on the Amp Farm panel and you can treat those nice neighbors to a tasty slice of fat rock tone.

1986 Marshall JCM800

Based on* 1986 Marshall JCM800

Turn to this Amp model to conjure up tones of the coveted JCM800, one of Marshall's most universally-acclaimed modern amps. This updated version of the Plexi continued the Marshall amp heritage with added gain and edge for a new generation of rock guitarists. One of the biggest differences here is that the tone controls are located after the preamp tubes. We worked with a 1990 JCM800 with Master Volume to develop this model. This is the metal sound Marshall made famous. Although not many people play Marshall amps clean, it's a great tone, so you should also be sure to check out this model with a low drive setting, too. Of course, you can always pump up the Drive and rage..., By the way, you'll notice that all of the Marshall-inspired Amp models include an Extra Gain switch. This control allows you to hook up a "virtual patch cord" to link the normal and bright channels of these amplifiers. This classic trick is used to get more gain on input with these Marshall amplifiers. and we recreate it here. Just flip this switch to the Extra Gain position, and the patch cord pops up on the right. Fun. huh?

1995 Mesa/Boogie "Recto" Head

Based on* 1995 Mesa/Boogie® Dual Rectifier® Head

The Mesa/Boogie Rectifier head on which this Amp model is based is similar to the Rectifier combo, taking a modern, high gain approach for that "big hair" sound. In contrast to the earlier Mesa/Boogie amps, the Dual Rectifier tone controls have more influence at high gain settings, so you can scoop the mids and increase the bottom end.

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1994 Mesa/Boogie Trem-O-Verb

Based on* 1994 Mesa/Boogie Trem-O-Verb

You can use this Amp model to get that tight, high gain sound used by bands like Dream Theater or Metallica. Mesa/Boogie made their mark in the late 70s and early 80s by adding master volumes and more gain stages to amps with Fender style circuitry. You can hear the Fender heritage, but with more "punch" in the mids. The Mesa/Boogie Dual Rectifier tone controls are post-distortion, and as with the tone sections of most of the amps we based our models on, the individual controls interact with each other and with the Drive. With high Drive settings, you can scoop the mids and crank the bottom end for some great Seattle grunge sounds.

1989 Soldano SLO Head

Based on* 1989 Soldano SLO 100 Head

This sound is modeled after a Soldano SLO (Super Lead Overdrive) head. With snakeskin tolex covering and everything! Unlike the X88R preamp studied for the next Amp Model, the SLO includes a presence control, plus other little details that give it a bit of a different sound. With the Drive control cranked way up, you'll get sustain for days.... Go out'n'ave a bite—when you come back it'll still be sustaining!

1987 Soldano X-88R Preamp

Based on* 1987 Soldano X-88R Preamp

The Soldano sound is intensely overdriven, and also has EQ after the preamp distortion. This oversaturated tone is well-suited to thrash metal and grunge bands, but has also been used more subtly by artists like Eric Clapton. This is a good Amp model to use if you want to get a later Van Halen or Joe Satriani sound. Talk about high gain preamp tube distortion! The X88R we studied to create this Amp model would have been the rage for Los Angeles studio use in the late 80s.

1996 Matchless Chieftain

Based on* 1996 Matchless® Chieftain

The 1996 Matchless Chieftain, which was studied for this Amp model, is a very expensive handmade amp with a Class A design. Originally designed to sound like a Top Boost Vox AC30, the Matchless does not exactly have a Vox sound, but something unique (largely due to the complicated EQ scheme). The sound is sort of "future retro." Its soft clipping is typical of Class A amplifiers; almost a "hi-fi" sound in a great rock n' roll amplifier.

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