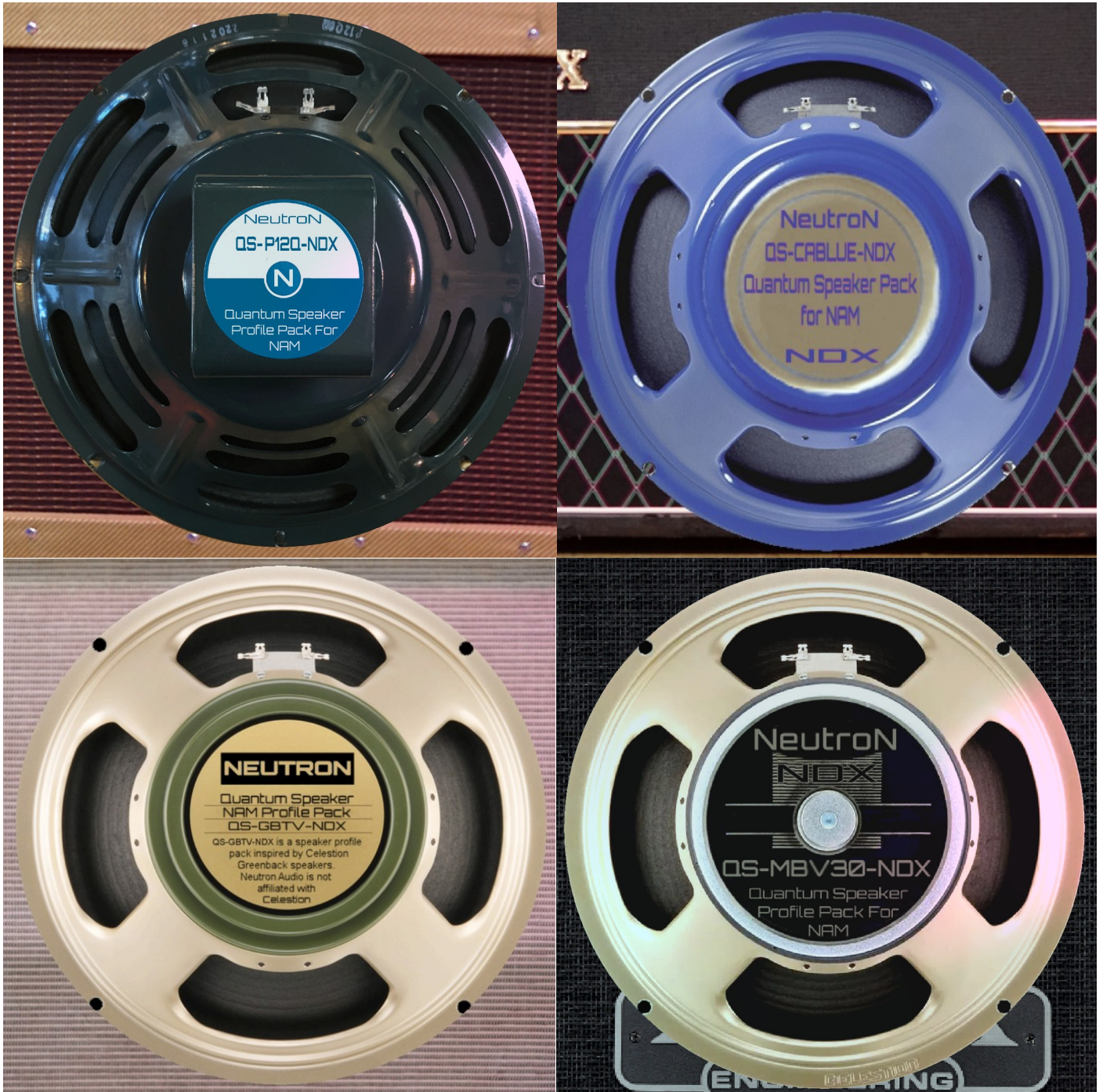




Neutron Quantum Speaker NAM

NDX Gen2 QuickStart Sampler

Free Profile Pack

User Manual

Introduction

Neutron Quantum Speaker pack for Neural Amp Modeler

Thank you for downloading the Neutron Quantum Speaker NDX Gen2 QuickStart Sampler.

This free sampler pack has been created to give you a direct introduction to Quantum Speaker: Neutron Audio's authentic source-captured, non-linear speaker and microphone profiling system for NAM.

Rather than offering a full speaker pack, this sampler gives you four carefully selected QuickStart profiles from the Quantum Speaker range. Each one represents a different classic cabinet type, allowing you to hear a small but meaningful part of what Quantum Speaker is capable of.

The four included profiles cover:

- 1x12 open-back vintage American (Jensen P12Q)
- 2x12 open-back vintage British (Celestion Alnico Blue)
- 4x12 vintage (Celestion Greenbacks)
- 4x12 modern (Mesa OEM Celestion V30)

Together, these profiles provide a broad first look at the sound, feel, dynamics, and realism of Quantum Speaker with NDX Gen2.

These profiles have been designed for use alongside other Neutron Core components, and recorded to deliver realistic results in modular signal chains. The profiles in this pack are full-quality NAM A1 Standard architecture compatible and should work in all plugins and devices that will load that format.

What you Will need

You will need the Neural Amp Modeler plugin or standalone app, or a compatible device or plugin capable of loading standard architecture NAM A1 full-quality files.

The official NAM plugin for PC and Mac can be obtained for free from the Neural Amp Modeler website:

<https://www.neuralampmodeler.com/>

About Quantum Speaker

Speaker Simulation: Evolved

At Neutron Audio, we believe true innovation transforms your sound.

Quantum Speaker represents the natural evolution of speaker and microphone simulation, advancing beyond the limitations of Impulse Responses by capturing the full dynamic behaviour of real speakers and microphones.

Traditional IRs are static snapshots. They capture a frequency response at a moment in time, but they do not capture the way a real speaker moves, compresses, reacts, blooms, recovers, and changes across different playing levels.

Quantum Speaker is different.

Rather than relying on static frequency snapshots, or augmenting them with algorithmic estimates, Quantum Speaker uses advanced non-linear profiling to capture the complex tonal behaviour, dynamics, and breakup that occur across volume levels. The result is a source-captured speaker and microphone simulation that feels more alive, more responsive, and more true to the original recording chain.

With Quantum Speaker, you are not simply loading a speaker curve. You are loading the behaviour of a real speaker, in a real cabinet, captured through real microphones, using a system designed to preserve the source as faithfully as possible.

This is not IR.

It is a Quantum Shift in Speaker Simulation.

What Is This Sampler?

The NDX Gen2 QuickStart Sampler is a free introduction to the Quantum Speaker ecosystem.

It is designed to let you evaluate the sound and feel of authentic, source-captured, non-linear speaker simulation without needing to build a full multi-mic blend yourself.

Each profile in this sampler is a QuickStart profile. QuickStart profiles combine multiple microphone captures into a single load-and-go NAM file, giving you an immediate studio-ready speaker sound with minimal setup.

The full Quantum Speaker packs go much deeper. Each full pack includes a complete set of individual discrete microphone captures, allowing you to build your own blends in parallel just as you would in a professional recording session. This sampler is intended as a first taste of that world: a simple, practical way to experience the realism, response, and dynamic behaviour that Quantum Speaker makes possible.

If you want the full recording-session experience, the full Quantum Speaker packs unlock the complete mic set, additional QuickStart profiles, and deeper blending possibilities.

What's Included

This free sampler includes four NDX Gen2 QuickStart profiles:

QS-P12Q-NDX

1x12 Open-Back Vintage American

Based on a Jensen P12Q-style speaker in an open-backed 1x12 tweed cabinet.

This profile represents the small open-back vintage American cab sound: warm, woody, touch-sensitive, harmonically rich, and full of expressive early breakup. It is ideal for blues, Americana, edge-of-breakup tones, vintage cleans, and dynamic playing styles where feel is central to the sound.

QS-CABLUE-NDX

2x12 Closed-Back Modern High-Headroom

Based on Celestion alnico blue speakers in an open-back 2x12 cabinet.

This profile represents the classic british 2x12 sound: open, dynamic and full of chime. Great on everything from vintage 60s to modern indie.

QS-GBTV-NDX

4x12 Vintage British

Based on a Marshall 1960TV-style 4x12 cabinet loaded with late-'80s UK-made G12M-25 Greenback-style speakers.

This profile represents the vintage British 4x12 sound: classic rock authority, open upper mids, familiar Greenback character, and a larger cabinet voice with width, projection, and musical warmth. It is ideal for vintage Marshall-style tones, classic rock, blues rock, and dynamic crunchy rhythm sounds.

QS-MBV30-NDX

4x12 Modern High-Gain

Based on a Mesa/Boogie Rectifier Standard-style 4x12 cabinet loaded with Vintage 30-style speakers.

This profile represents the modern high-gain 4x12 sound: tight low end, strong projection, firm upper-mid presence, and excellent articulation under gain. It is ideal for modern rock, metal, extended-range guitars, and powerful rhythm tones that need focus and impact.

Why These Four Profiles?

This sampler is organised around cabinet types, not simply speaker names.

The goal is to give you a meaningful cross-section of the Quantum Speaker range while keeping the pack simple, useful, and easy to evaluate.

The four included cab types are:

- 1x12 open-back
- 2x12 open-back
- 4x12 vintage
- 4x12 modern

This lets you hear how Quantum Speaker responds across very different speaker and cabinet behaviours: small-cab bloom, closed-back punch, vintage 4x12 character, and modern high-gain control.

Each one demonstrates a different part of what NDX Gen2 brings to Quantum Speaker.

What Makes Quantum Speaker Different?

Real Source-Captured Behaviour

Quantum Speaker captures the behaviour of real speakers and microphones at the source. It is not simply a static frequency curve and it is not an algorithmic speaker approximation.

Real speakers do not behave in a fixed way. Their response changes with level, dynamics, transient energy, compression, recovery, and the interaction between the speaker, cabinet, microphone, and signal chain.

Quantum Speaker is designed to preserve that behaviour.

This matters because guitar speakers are not just filters. They are dynamic musical components. They react to the amplifier, the player, and the performance.

Quantum Speaker captures that response so the result feels more like a recorded speaker and less like a static cabinet snapshot.

What Is NDX?

NDX, or Neutron dyNAMix, is Neutron Audio's bespoke NAM training process.

NAM was already one of the most accurate profiling solutions available in terms of frequency content. NDX adds an additional layer of time-based dynamic realism, allowing profiles to capture more of the behaviour that affects how real gear feels and reacts over time.

NDX is designed to help capture behaviours such as:

- transient recovery
- saturation bloom
- compression movement
- level-dependent tonal change
- time-domain dynamic response
- more natural behaviour under gain

These are the details that help a profile feel more like real equipment rather than a static approximation.

Historically, this type of dynamic behaviour has often required custom architectures with greater CPU demands and limited compatibility. NDX is designed to encode this additional dynamic information directly into standard format NAM profiles.

That means these profiles remain compatible with plugins and hardware that load full NAM profiles, while still benefiting from Neutron Audio's enhanced capture and training process.

All profiles in this sampler are created using the NDX Gen2 system.

Using the QuickStart Profiles

QuickStart profiles are designed for ease of use.

They combine multiple microphone positions and settings into a single load-and-go profile, giving you immediate access to a studio-ready speaker sound without needing to set up parallel routing or blend several microphone captures yourself.

To use a QuickStart profile:

1. Open your DAW or NAM-compatible device.
2. Insert NAM on your guitar track after your amp, preamp, or drive chain.
3. Load one of the included Quantum Speaker QuickStart profiles.
4. Adjust the NAM input level to control how hard the virtual speaker profile is being driven.
5. Play.

QuickStart profiles are ideal for:

- fast tracking

- songwriting
- live use
- comparing cabinet types
- auditioning the Quantum Speaker ecosystem
- low-CPU speaker simulation
- simple load-and-go tones

They are designed to sound complete on their own.

Suggested Signal Chain

Quantum Speaker profiles are speaker and microphone profiles. They are intended to sit where a real speaker cabinet and microphone would sit in a recording chain.

A typical modular chain would be:

Pedal → Preamp → Power Amp → Quantum Speaker

Or, for a simpler setup:

Amp Profile → Quantum Speaker

If you are using an all-in-one amp profile that already includes a cabinet or speaker section, disable or bypass that cabinet section before loading Quantum Speaker. Running multiple cabinet simulations in series may produce darker or less natural results.

Quantum Speaker works especially well as part of the Neutron Core ecosystem, but it can also be used with other NAM amp profiles, hardware amp captures, modelled amps, or preamp and power amp tools.

Input Level Matching

Since a guitar speaker is powered by an amplifier, level calibration is not required in the same way it is for some other gear types.

The NAM Input control represents how hard the speaker profile is being driven. There is no single “correct” creative input level for every tone. Adjust the input level until the profile reacts the way you want for the sound you are trying to achieve.

As a general starting point, we recommend:

- Set NAM input calibration to off.
- Set output mode to Normalized.
- Keep levels below clipping.
- Adjust the NAM input level by ear.

The profiles are calibrated to a return level of:

6 dBu = 0 dBFS

NAM Input Meter: Avoiding Clipping

To maintain the most accurate and authentic reproduction of the captured gear, monitor your input levels carefully in NAM.

- Keep levels below 0 dBFS at all times.
- Avoid clipping.
- If chaining NAM instances, adjust the output of one instance to avoid overdriving the next.
- If the sound becomes harsh, broken, or unnatural, check the level feeding NAM before making tonal decisions.

Clipping before or inside the speaker profile can create unnatural distortion that is not part of the captured speaker behaviour.

More Than EQ: Why Feel Matters

Quantum Speaker is about more than EQ. It is about behaviour.

The difference is often most obvious when you play dynamically: rolling the guitar volume back, digging in harder, changing pick attack, moving between clean and driven amp settings, or comparing fast transients against sustained chords.

There are always arguments around A/B listening, blind tests, and whether one speaker simulation sounds close enough to another in isolation. Those comparisons can be useful, but they do not tell the whole story.

Quantum Speaker is designed around something deeper: how the speaker feels when you play through it.

That matters because feel connects the player to the sound. When the speaker reacts naturally, the instrument feels more alive. You play differently. You phrase differently. You push and pull against the sound in a more musical way. That connection inspires better performances.

And a great performance is not an abstract thing. It is heard in the mix. It is heard in the room. It is heard from the back of the venue when playing live.

This is why Quantum Speaker focuses on authentic source-captured non-linear speaker behaviour, not just static frequency response. The goal is not merely to recreate the shape of a speaker's tone, but to preserve the way it moves, reacts, compresses, recovers, and responds to the player.

That is where true realism lives.

About the Full Quantum Speaker Packs

This sampler gives you four QuickStart profiles from the wider Quantum Speaker range.

The full Quantum Speaker packs offer much deeper control.

Each full pack includes a complete recording-session style collection of discrete microphone captures, allowing you to blend microphones in parallel just as you would in a professional studio. Instead of being limited to a single static sound, you can build your own cabinet tone using multiple microphone types and positions.

Full packs include:

- 27 NDX NAM A1 standard architecture compatible discrete mic profiles
- 5 QuickStart profiles of pre-combined mic blends
- 6 console filter IRs to shape the sound further

The discrete mic profiles are captured without post-processing or artificial sweetening, giving you a raw studio-style speaker and microphone source to work from.

This allows you to create your own blends, build custom tones, and work with speaker simulation in a way that more closely resembles a real recording session.

QuickStart vs Discrete Profiles

QuickStart Profiles

QuickStart profiles are pre-combined blends. They are designed to sound complete immediately and require only one NAM instance.

Use QuickStart profiles when you want:

- speed
- simplicity
- low CPU use
- live performance convenience
- instant studio-ready tones
- fast comparison between speaker and cabinet types

Discrete Profiles

Discrete profiles are individual microphone captures. They are designed for users who want deeper control.

Use discrete profiles when you want:

- custom mic blending
- parallel routing
- studio-style cabinet recording workflows
- precise control over microphone tone
- access to the full captured speaker/mic system

This sampler includes only QuickStart profiles. To access the discrete mic captures, explore the full Quantum Speaker packs.

Mix & Match Ecosystem

The Neutron Core system, like all Neutron products, is designed as a modular platform that allows you to mix and match profiles to suit your creative needs.

Neutron Core profiles can scale from simple setups to full modular chains.

For example:

Pedal → Preamp → Power Amp → Quantum Speaker

Quantum Speaker profiles are the final cabinet and microphone stage in that chain. They can be used with Neutron Core amp packs, Neutron PowerPack profiles, or compatible third-party NAM amp profiles.

The goal is to provide the experience of a real recorded guitar chain with the flexibility of modern software.

What Is Neutron Core?

Neutron Core is the foundation layer of Neutron Audio's profiling ecosystem.

It provides modular profiles of individual components in the signal chain, including amplifiers, pedals, power stages, and more. These profiles are captured with an emphasis on preserving detail, behaviour, and musical responsiveness.

A user may choose a simple all-in-one profile for convenience, or build a modular rig using multiple components, including pedals, preamps, power amps, and Quantum Speaker profiles.

The goal is to provide an authentic recorded guitar sound: the kind of result you would expect if you walked into a professional studio and worked with experienced engineers using high-quality gear.

Every profile reflects Neutron Audio's core philosophy:

True to the source. Technology fused with expertise.

Support

If you need support or have questions about this Quantum Speaker sampler, you can:

- Submit a request on our website:
<https://www.neutronstudios.com/>
- Join our dedicated Facebook customer group:
<https://www.facebook.com/groups/1712386306166179>

Our Facebook group is the ideal place to ask questions, get updates on our products, and connect with other Neutron Audio users.

We Are on YouTube

We also have quickstart and deep-dive videos that demonstrate the many ways Quantum Speaker can be used.

When you are ready to hear more examples, learn more about the system, or explore the full potential of Quantum Speaker, visit our YouTube channel:

https://www.youtube.com/@neutron_audio

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