

NEUTRON



**Neutron Core NC-MSL30TH-NDX
NDX Amp Profile Pack for NAM &
Convology XT**

User Guide

Introduction

Neutron core amp pack for Neural Amp Modeler

These profiles have been designed for use alongside other Neutron Core components, and recorded to deliver realistic results in modular signal chains.

Each amp was captured across a range of settings to allow faithful recreation of the sound and behaviour of the original hardware. 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:

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 at the following link: <https://www.neuralampmodeler.com/>

The Convology XT plugin is free, and available here:

<https://wavearts.com/products/plugins/convology>

To get your free lifetime serial key for CXT, read the FAQ here:

<https://wavearts.com/support/faq#how-do-i-get-a-convology-xt-serial>

About

Neutron Core is a groundbreaking ecosystem designed to provide guitarists and producers with unparalleled tonal flexibility. Consisting of separate packs of guitar amps, pedals, and effects, Neutron Core products can be used individually or combined with each other and our Quantum Speaker and PowerPack profiles to create a fully integrated mix-and-match environment. This comprehensive system is built on our core philosophy of blending cutting-edge technology with decades of real-world music industry expertise.

Our profiles and presets leverage the best tools available, including NAM (Neural Amp Modeler) for amp modeling and Convology XT for high-quality convolution effects. Each pack is meticulously crafted to deliver hyper-realistic results, capturing the authentic character of the original gear.

Importantly, we avoid applying pre-EQ to our profiles, allowing users to tailor the sounds to their specific musical projects without destructive EQ baked in. This approach preserves the richness of harmonic and frequency content, ensuring that users can shape their tones by cutting away excess frequencies rather than resorting to extreme EQ boosts, which can degrade phase integrity and fidelity. We add simple HP/LP filters only to our AIO (full rig) profiles to help get you closer to a finished sound, leaving all the other profile types (DI, Preamp, Quantum Speaker) completely untouched for maximum versatility.

This manual specifically focuses on the Neutron Core MSL30TH NDX Profile Pack, a tribute to one of the most versatile amplifiers in guitar history.

The Marshall 30th Anniversary Series

Released in 1992 to celebrate Marshall's 30-year legacy, the **6100/6101 Anniversary Series** marked the company's most advanced design ever.

Each of its three channels was a self-contained circuit, optimized to cover distinct tonal eras:

- **Channel 1 – Clean:** Derived from the JTM45/Bluesbreaker lineage, but a true clean channel, rare on a Marshall.. warm and dynamic with switchable “Bright” mode.
- **Channel 2 – Classic:** A faithful evolution of the Plexi and JCM800 voice, spanning crunch to hot-rodded tones. 3 separate modes with increasing gain stages
- **Channel 3 – Modern:** A unique high-gain design exclusive to the 6100, combining saturation, tightness, and smooth response, with a gain boost and contour option.

Selectable **High or Low damping** power amp modes, **triode/pentode modes**, **100w/50w modes** and **programmable MIDI switching** made it a true studio amp decades ahead of its time.

The 6960A 4×12 with S303 Gold Speakers

The limited-edition **6960A cabinet** was finished in deep blue tolex with gold trim — but the real treasure is inside: four **S303 “Gold” 12” Celestion/Marshall drivers**, rated at 200 W each and designed exclusively for the 30th Anniversary series. The S303s deliver a remarkable tonal balance — tight lows, smooth, warm highs (perfect for the bright sound of many Marshall amps), and a forward midrange punch — providing an ideal match for the 6100's wide tonal palette. These speakers were **ONLY** available in the 6101 combo and the anniversary 1x12 extension cabinets (and **NOT** in the USA where an EV model was used instead) so having 4 in a 4x12 is an extremely rare and exclusive treat!

This pack captures that combination in detail: every mode, channel, and tonal contour of the 6101 head into the 6960A/S303 cab, preserving the amplifier's full dynamic identity. Along with the raw amp sounds, we also have a selection of extra sounds captured with iconic pedals in the chain, carefully chosen to perfectly enhance this amp.

What's Included

Inside the pack you will find:

107 NDX Profiles for NAM (Neural Amp Modeler):

There are AIO (full rig), DI (amp only) PRE (preamp only) and Quantum Speaker Quickstart NDX NAM profiles included in this pack.

NAM is free, and available here:

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

16 FX presets for Convology XT

There are both single and multi FX presets included for Convology XT

Convology XT is free, and available here:

<https://wavearts.com/products/plugins/convology>

6 Filter IRs to shape the sound

3 standard SSL LPF/HPF filter IRs Plus 3 Enhanced filters using a Pultec EQ

Profiles file Structure:

The pack is organised into a clear folder structure to help you navigate the included content:

- **Main Pack Folder:**
 - **Profiles:** Contains all the NAM profiles.
 - **Filters (Load_into_IR_Slot):** Includes three standard SSL LPF/HPF filter IRs, provided with all Neutron Core packs, Plus 3 new Enhanced filters using a Pultec EQ, tweaked for heavier sounds to add sub-sonic weight and a super high-end sheen. You can load these into the NAM IR slot right on the same instance as the profile, you will need to turn up the output knob to compensate for the loss of level you get when loading an IR (typically +8 - +10 on the knob after loading the IR).
 - **FX (For Convology XT):** Contains Convology XT presets for this pack in two formats:
 - .SFX EXE (for PC)
 - .ZIP (for macOS).
- **Profiles Folder:**
 - **AIO:** All-In-One profiles, designed with a full studio chain.
 - **DI:** Profiles designed for use with external pedals and amps without speaker simulation.
 - **PRE:** Profiles containing only the preamp section.
 - **QS:** Quantum Speaker QuickStarts with pre-blended microphone configurations.

Within the **AIO**, **DI**, and **PRE** folders, you will find additional subfolders:

- **Humbucker:** Profiles optimised for humbucker-equipped guitars.
- **Single-Coil:** Profiles optimised for single-coil-equipped guitars.
- **Universal:** Profiles such as the “All knobs at 5”, not pickup specific.

This structure ensures easy navigation and quick access to the profiles and settings you need.

Pack Design Principles

The Neutron Core MSL30TH Pack is designed based on three key decisions:

1. **Pickup Type:** Profiles are separated by guitar pickup type (Single-Coil or Humbucker), as this fundamentally shapes the signal chain.
2. **Drive Level:** Profiles are categorised by the amount of drive (Clean, Crunch, or Drive) to match the player's desired tone.
3. **Playing Function:** Each profile specifies whether it is intended for Rhythm or Lead playing.

The profile naming structure reflects these choices:

- **NC-MSL30TH-NDX-HB-03-CRN-RHY:**
 - **NC-MSL30TH-NDX** Pack Name
 - **HB/SC:** Humbucker or Single-Coil.
 - **0x:** Numerical sorting number.
 - **CLN/CRN/DRV:** Drive level (Clean, Crunch, or Drive).
 - **RHY/LD:** Rhythm or Lead.
 - **+PedalName:** Indicates the pedal used (e.g., DS1, CS-3).
 - **AIO/DI/PRE:** Profile type (All-In-One, DI or Preamp).

This structure ensures players can easily find the profiles that suit their specific needs.

Discrete Profile List:

Single Coil Amp Only						
ID	Gain	Bass	Mid	Treble	Presence	Notes
SC-CLN-RHY	6	6	6	3	1	CH1 Bright Off (High compensation on)
SC-CLN-LD	6	10	10	3	2	CH1 Bright Off (High compensation on)
SC-CRN-RHY	10	10	10	2	1	CH2 Mode B
SC-CRN-LD	6	10	10	0	0	CH2 Mode C (High compensation on)
SC-DRV-RHY	9	5	4	4	7	CH3 (High compensation on) Gain Boost On
SC-DRV-LD	10	10	10	2	6	CH3 (High compensation on) Gain Boost On
Single Coil With Pedals						
ID	Gain	Bass	Mid	Treble	Presence	Notes
NC-MSL30TH-NDX-SC-07-CLN-RHY+CNOVA-AIO	4	4	8	2	4	Clean Sound with T-Rex Comp Nova Compressor
NC-MSL30TH-NDX-SC-08-CLN-LD+ROSSCMP-AIO	4	8	6	0	5	Clean Sound with Ross Compressor
NC-MSL30TH-NDX-SC-09-CRN-RHY+KLON-AIO	10	8	6	2	6	CH2 mode B with a Klon as a boost
NC-MSL30TH-NDX-SC-10-CRN-LD+LM7-AIO	10	10	10	0	0	CH2 mode B with an Ibanez L.A. Metal distortion
NC-MSL30TH-NDX-SC-11-DRV-RHY+BBKR-AIO	10	6	6	0	6	CH3 with a Marshall Bluesbreaker
NC-MSL30TH-NDX-SC-12-DRV-LD+SD1W-AIO	10	8	6	4	4	CH3 With a Boss SD-1W as a boost

Humbucker Amp Only						
ID	Gain	Bass	Mid	Treble	Presence	Notes
HB-CLN-RHY	4	4	7	4	0	CH1 Bright On
HB-CLN-LD	5	6	10	3	2	CH1 Bright On
HB-CRN-RHY	10	10	10	10	0	CH2 (low compensation on) mode B
HB-CRN-LD	10	10	10	10	4	CH2 mode C
HB-DRV-RHY	9	6	3	10	10	CH3 (low compensation on) Gain Boost On
HB-DRV-LD	10	10	5	7	10	CH3 (High compensation on) Gain Boost On
Humbucker With Pedals						
ID	Gain	Bass	Mid	Treble	Presence	Notes
NC-MSL30TH-NDX-HB-07-CLN-RHY+OSQZR-AIO	5	5	5	5	6	Clean Sound with Dan Armstrong Orange Squeezer Compressor
NC-MSL30TH-NDX-HB-08-CLN-LD+CS3-AIO	6	4	6	6	10	Clean Sound with Boss CS-3 Compressor
NC-MSL30TH-NDX-HB-09-CRN-RHY+OD2-AIO	10	9	4	7	4	CH2 mode B with a Boss OD-2 Turbo Mode Off as a boost
NC-MSL30TH-NDX-HB-10-CRN-LD+DS1-AIO	10	8	10	4	4	CH2 mode A with a Boss DS-1
NC-MSL30TH-NDX-HB-11-DRV-RHY+KRANK-AIO	10	6	1	6	0	CH3 With a Krank Krankshaft as a boost
NC-MSL30TH-NDX-HB-12-DRV-LD+MSL-AIO	10	8	4	6	4	CH3 With an Ibanez Metal Screamer as a boost
Universal						
ID	Gain	Bass	Mid	Treble	Presence	Notes
NC-MSL30TH-NDX-UV-01-CLN-5s-AIO	5	5	5	5	5	All Knobs on 5 CH1
NC-MSL30TH-NDX-UV-02-CLN-5s-BRI-AIO	5	5	5	5	5	All Knobs on 5 CH1 Bright ON
NC-MSL30TH-NDX-UV-03-CRN-A-5s-AIO	5	5	5	5	5	All Knobs on 5 CH2 Mode A
NC-MSL30TH-NDX-UV-04-CRN-B-5s-AIO	5	5	5	5	5	All Knobs on 5 CH2 Mode B
NC-MSL30TH-NDX-UV-05-CRN-C-5s-AIO	5	5	5	5	5	All Knobs on 5 CH2 Mode C
NC-MSL30TH-NDX-UV-06-DRV-5s-AIO	5	5	5	5	5	All Knobs on 5 CH3
NC-MSL30TH-NDX-UV-07-DRV-BST-5s-AIO	5	5	5	5	5	All Knobs on 5 CH3 Gain Boost ON
NC-MSL30TH-NDX-UV-08-DRV-CTR-5s-AIO	5	5	5	5	5	All Knobs on 5 CH3 Contour ON
NC-MSL30TH-NDX-UV-09-DRV-CTR-BST-5s-AIO	5	5	5	5	5	All Knobs on 5 CH3 Contour and Gain Boost ON

Quantum Speaker Quickstart (QS) Profiles

These NDX QuickStart profiles use pre-blended microphones on Marshall/Celestion S303 G12 “Gold” 200w Speakers, as fitted to our blue tolex 6960A 4x12 30th anniversary cabinet:

- **QS-MS303-NDX-01-Balanced**
- **QS-MS303-NDX-02-Clear**
- **QS-MS303-NDX-03-Deep**
- **QS-MS303-NDX-04-ITR**
- **QS-MS303-NDX-05-Warm**
- **QS-MS303-NDX-06-Bite**
- **QS-MS303-NDX-07-Focused**
- **QS-MS303-NDX-08-Sweet**

FX Presets for Convology XT

The FX selection for this amp takes on a distinctly 90s theme, made with a mixture of studio gear from the same period (or in popular use at that time) as the amp itself. This pack includes several single and multi-effects presets for Convology XT, these all-in-one presets can contain any combination of modulation, delay and reverb for a complete sound in a single preset. They are designed to enhance your playing experience for a studio quality sound and are made using advanced convolution technology from the highest quality sources for an authentic and realistic result. Notice the suffix of -M, MS or -S in the preset name, this shows whether the preset is mono (-M), mono in+stereo out (-MS) or stereo in and out (-S). Make sure you place any mono or mono in effects presets before stereo ones, as otherwise they will collapse anything stereo into mono before applying their effect:

FX Presets List for this pack:

1. **NCFX-Lexi Hall-S:** Classic Lexicon hall with subtle tail modulation
2. **NCFX-Stereo-Tank-S:** Stereo Accutronics Spring Reverb made using 2 tanks!
3. **NCFX-DQUAD-Studio-Room-S:** Digitech Studio Quad room algorithm
4. **NCFX-DQUAD-Chamber-S:** Digitech Studio Quad chamber algorithm
5. **NCFX-Qverb-PingPong-S:** Quadraverb stereo alternating delays
6. **NCFX-Blade runner-S:** Huge, long decay reverb for ambient soundscapes
7. **NCFX-2Tap-Detune-S:** Multi-Tap delay with detune
8. **NCFX-Verb-In-Motion-S:** Swirling modulated stereo reverb
9. **NCFX-Space-Flanger-M:** Thick, greasy flanger..
10. **NCFX-Lean-Into-It-S:** 90s LA Rock ambience with modulation
11. **NCFX-Symphonic-Hall-S:** SPX symphonic chorus with Lexicon Reverb
12. **NCFX-Bulldozer-MS:** Huge and Wide
13. **NCFX-Session-Man-S:** Polished multi effects with delay, chorus and reverb
14. **NCFX-Warm-And-Fuzzy-MS:** Modulated warmth.. like a cosy blanket
15. **NCFX-Blue-Dream-S:** Guitar hero worthy effects!
16. **NCFX-Space-Delay-S:** Modulated delay with phase offset left and right

To install the included FX presets:

On Windows, run the included EXE to install the FX presets into your Convology library folder, then reload any instances of convology XT for the presets to appear.

On MacOS, unzip the contents of the zip file in the FX folder of the pack to a location on your system (e.g. Documents\Neutron\FX\NEUTRON NC-MSL30TH FX). Once the folder is in the location, on your convology XT plugin open the settings (picture of a cog wheel) and in the "preferences" section, set your custom library location to the same folder containing your extracted files (e.g. Documents\Neutron\FX\). Reload any instances of convology XT for the presets to appear.

Gain Control and NDX amps

Due to the extended dynamic range present in NDX profiles, you can really use the gain control on NAM to get a huge variety of sound options from each and every profile. All the way down to -20 and up to about +10 you will find realistic results waiting, just like using the gain control on the amp. Due to the way "gain" works in NAM, unlike many other plugins and profilers, it does not invent gain behaviours, only acting as an input level into the model. For this reason you absolutely should experiment with the gain control, and don't be afraid to try the full range!

Input/Output Calibration

All profiles in this pack contain input and return level calibration information where relevant. If your chosen plugin or device does not read this information do not worry, its not necessary to use the profiles. To enable the calibration feature on the NAM plugin, enable "Calibrated" mode in the NAM plugin settings and enter your own input calibration level in the box provided and turn on "input calibration". We create our sounds at +6dbU = 0dbFS. If your plugin or device does not support auto-calibration, either manually adjust your input to this level, or as a rough guide you can simply strum your guitar equipped with a humbucker and set your input level on your soundcard/device so that the signal peaks around -6db on your meter, or for a single coil guitar this should be around -12db. Add or remove gain from there to taste. We recommend setting the **output** calibration mode to "Normalized".

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 — it can cause unnatural behaviour or distortion
- If chaining NAM instances, adjust the output of one to avoid overdriving the next

Mix & Match Ecosystem: Combining Profiles for Maximum Flexibility

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

Core pedal and amp packs scale from simple setups — a single AIO profile with pedal, amp and speaker in one profile — to full modular chains that rival the realism of multi-instance plugin rigs or complex studio workflows.

Neutron Core profiles are built to combine seamlessly in both serial and parallel configurations, enabling users to recreate real-world recording setups with natural, believable results.

Combining Profile Types

1. Pedal Profiles:

Place at the front of the signal chain to add compression or gain shaping before the amp stage.

2. Preamp Profiles:

Found in Neutron Core amp packs. Combine with PowerPack profiles and Quantum Speaker captures to recreate rich, realistic behaviour and gain extra control of the sound.

3. Power Amp Profiles:

(Sold separately via Neutron PowerPack.) These simulate output stage saturation and speaker interaction, completing modular rigs.

4. Quantum Speaker (QS) Profiles:

- **QuickStart Profiles:** Ready-to-use blends of classic mic placements.
- **Discrete Mic Profiles:** Combine individual mics in parallel for custom blends.

Signal Chain Examples

- **Series:** Pedal → Preamp → Power Amp → Quantum Speaker
- **Parallel:** Combine multiple Discrete Mic profiles for realistic mic mixing

What Is Neutron Core?

Neutron Core is the foundation layer of Neutron Audio's profiling ecosystem. It provides highly accurate, modular profiles of individual components in the signal chain — including amplifiers, pedals, power stages, and more — all captured with an emphasis on preserving both detail and musical responsiveness.

Neutron Core profiles are fully compatible with the standard NAM format plugin and hardware ecosystem. They are designed to be mixed and matched: a user may choose a single All-In-One (AIO) profile for simplicity, or build a modular rig using multiple components — including pedals, preamps, power amps, and cabinets. Profiles are captured at consistent operating levels and behave predictably when combined, allowing for flexible signal routing without correction or compensation.

Each Neutron Core pack is the result of a process that combines **technical precision with recording industry expertise**. The capture process is **true to the source**, delivering an accurate representation of the gear's **sound, behaviour, and character**. The result also reflects the decisions made by experienced engineers — gain staging, signal flow, mic selection, balance, and response — shaped using high-end equipment and decades of professional studio knowledge.

The goal is to provide users with an **authentic, recorded guitar sound** — the kind of result they would expect if they walked into a professional studio and worked with skilled engineers using the best available gear. Every profile reflects Neutron Audio's core philosophy: **truth to the source**, and the belief that **technology fused with recording industry expertise** creates exceptional results.

What Is NDX?

NAM was already the most accurate profiling solution available in terms of frequency content. NDX (Neutron dyNAMix) is Neutron Audio's bespoke NAM training process — a combination of software, hardware and expertise developed by us to include an additional, deeper layer of time-based dynamic realism. In short, it adds more Dynamics to NAM profiles.. hence the name “dy NAM ix” or NDX for short. The easiest way to hear this clearly in action is by checking out our compressor packs where you will clearly hear extreme, long time-domain compression in action. That was previously not possible with the standard NAM trainer or architecture, NDX adds this extra information to all of our profiles made with it.

NDX allows the authentic profiling of more complex compression, transient recovery, saturation bloom, and time-based level-dependent changes — these are the time-based responses which affect how real gear feels and reacts, not just how it sounds in the frequency domain. NDX also helps to reduce some of the aliasing-like artifacts you can often find in high-gain NAM profiles, as the increased time-domain information reduces frequency averaging for a more natural result; increasing both realism and fidelity across the board.

Historically, this has only been achievable using custom architectures with increased CPU demands and limited compatibility. NDX encodes this extra time-based dynamic information directly into standard format NAM profiles. They will work on any plugin or hardware that natively loads full NAM profiles.

It applies equally to compressor, pedal, amplifier, poweramp, and speaker profiles — allowing all of them to behave more like reality and increasing overall fidelity in all cases.

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

Support

If you need support or have questions about the Neutron Core Pack, 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 all our products, and connect with other Neutron Audio users.

We are on YouTube!

This manual aims to cover all aspects of using the pack comprehensively, however we have also made a video that explains the Neutron Core concept in detail here:

<https://www.youtube.com/watch?v=kkE-U04qo2U>

We also invite you to watch the other videos on our channel at::

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

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