

VTEK

R-190

DIGITAL REVERBERATOR

USER MANUAL



VTEK AUDIO PLUGINS

VTEK R-190

CONTENTS

1. FOREWORD	2
2. WELCOME	3
3. SIGNAL FLOW	4
4. THE SIX MODES	5
5. THE CONTROLS	6
6. DUCKER	7
7. MODULATION & WIDTH	8
8. WORKING WITH R-190	9
9. TIPS & BEST PRACTICES	10
10. SPECIFICATIONS	11
11. CREDITS	12



VTEK AUDIO PLUGINS

VTEK SPEAKS

A personal foreword

The **R-190** Digital Reverberator is the result of a lifelong love for classic reverb and the character those vintage racks brought to every session. It is inspired by the spirit of the late '80s and early '90s—an era when digital reverb became bold, musical and unmistakable.

I designed **R-190** to capture that timeless tone while giving you the speed, recall and flexibility today's workflows demand. Every algorithm was tuned for musicality, every control chosen to feel tactile and intuitive. No menus. No distractions. Just the right tools to shape space effortlessly.

Great reverb is more than tail length or size—it's about emotion, depth and placement. **R-190** is built to help you place sounds in believable spaces quickly and musically, whether you need a subtle room, a lush hall, a tight plate, or something entirely your own.

I hope **R-190** becomes a trusted part of your mix process—the kind of reverb you reach for instinctively and rely on every time. Thank you for letting me be part of your sound.

Cheers,

Vtek.



WELCOME

A CHARACTER REVERB BUILT TO SIT IN A MIX

R-190 is a digital reverberator by Vtek, styled after classic two-rack-unit studio hardware. Its sound is built around a plate-derived tank, with six modes, stereo width, wet-signal filtering and a dedicated ducker.

The point is not to imitate a specific physical room. R-190 is designed as a character reverb — something you shape quickly until it sits where you want it in the mix.

Its engine follows the Dattorro plate topology, with a naturally light low end that leaves room for the source. The controls then let you decide how long the tail lasts, how dark or dense it feels, how wide it spreads, and how much space it occupies.

WHAT MAKES IT DIFFERENT

It is built to place reverb in a mix, not to model a room.



3. SIGNAL FLOW

The R-190 processes your audio through a carefully designed signal path, giving you complete control over tone, space and movement.

Here's the overall signal flow:



INPUT — Incoming audio. Summed to mono before the reverb engine.

PRE DELAY — Sets the gap before the reverb tail begins.

REVERB ENGINE — The plate tank, in one of six modes. MODULATION and DENSITY act here.

EQ CUT — Low and high cut, applied to the reverb only. Your dry signal is never filtered.

WIDTH — Stereo spread of the reverb tail.

DUCKER — Pulls the tail down while the input is playing.

OUTPUT — Dry and reverb blended by MIX, then output level.



TIP: Use **PRE DELAY** to create separation between the source and the tail. **EQ CUT** shapes the reverb without touching your dry signal.



4. THE SIX MODES

Six buttons, six useful directions — built around the same R-190 character.



1 PLATE

The reference voice. Open, musical plate character and the baseline sound of R-190.

2 ROOM

A shorter, more contained version of the plate-derived engine. Useful when the tail must stay close.

3 HALL

A darker, smoother voice with a sense of distance. Good when you want size without extra brightness.

4 CHAMBER

Slightly shorter and denser. A compact, intimate plate-like space with more reflection density.

5 AMBIENCE

Very short spatial treatment. Adds depth and presence without leaving an obvious reverb tail.

6 ECHO

A feedback delay — not a reverb. TONE and MODULATION are inactive while ECHO is selected.

ONE FAMILY, DIFFERENT VOICINGS

PLATE, ROOM, HALL and CHAMBER share the plate-derived tank and are voiced differently. ECHO is the exception: it is a separate feedback-delay mode.



VTEK AUDIO PLUGINS

5. THE CONTROLS

A quick overview of R-190's main controls.

TOP ROW

INPUT



Set the input level.

MIX



Blend dry and reverb signals.

OUTPUT



Set the output level.

PREDELAY



Adds a short delay before the reverb.

TIME



Sets the overall decay time.

TONE



Adjusts the brightness of the reverb.

MODULATION / WIDTH

MODULATION



Modulation amount for movement.

WIDTH



Adjusts stereo width of the reverb.

PREDELAY	25 ms	WIDTH	50 %
RECOVERY	2.0 s	TIME	2.4 s
DENSITY	85 %	TONE	5.0
MODULATION	60	DUCKER	ON
DUCKER AMT	6.0	EQ CUT	OFF

DUCKER

AMOUNT



Amount of reduction when input is present.

RECOVERY

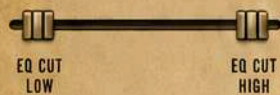


Time for the reverb to return after input stops.

BOTTOM LEFT

EQ CUT LOW

EQ CUT HIGH



Adjusts low and high frequency cut for the reverb.

DENSITY



Controls the density of the reflections.



VTEK AUDIO PLUGINS

RIGHT SIDE

BYPASS



Engages / disengages the effect.

POWER



Turns the plugin on / off.



PRO TIP

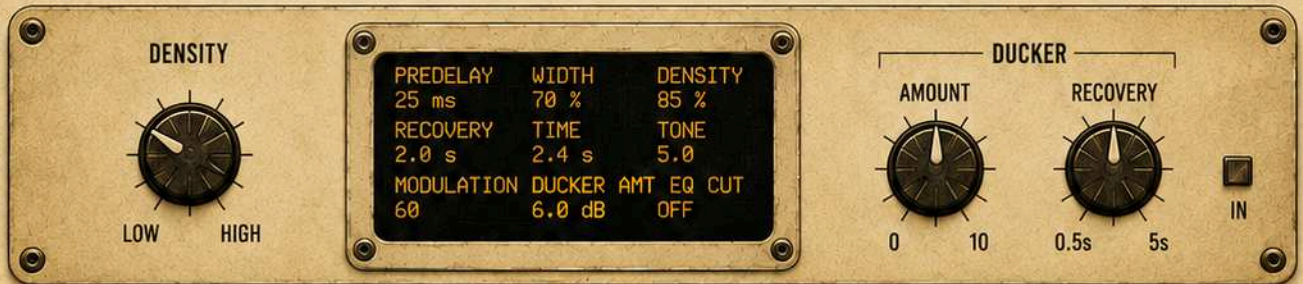
Start with the top row (INPUT, MIX, TIME) to dial in the basic reverb. Then fine-tune the character with MODULATION, WIDTH, and TONE. Use DUCKER to keep vocals and key elements clear.



VTEK AUDIO PLUGINS

6. DUCKER

The Ducker automatically reduces the reverb level when your dry signal is present. This keeps vocals and other key elements clear while still giving you a natural sense of space.



HOW IT WORKS

When audio is detected in the input signal, the ducker lowers the reverb level by the amount you set. When the signal stops, the reverb smoothly returns over the recovery time.



BEST USES

- **Vocals:** keeps the reverb out of the way while the singer is performing.
- **Dialog / Voiceover:** maintains clarity and professionalism.
- **Busy mixes:** gives space for kick, snare, or lead elements.

CONTROLS

AMOUNT

Sets how much the reverb is reduced when the input is present.

- 0 = Ducker Off
- 1 - 3 Subtle ducking
- 4 - 7 Moderate ducking
- 8 - 10 Strong ducking



RECOVERY

Sets how quickly the reverb returns after the input signal stops.

- 0.5s - 1s Fast (tight, modern)
- 1s - 2s Medium (natural)
- 2s - 5s Slow (smooth, cinematic)



IN

Lights up when the ducker is active and reacting to your input signal.



PRO TIP

Start with AMOUNT around 3-5 and RECOVERY around 1.5-2.0s. Adjust to taste. If the reverb "pumps" too much, lower the amount or lengthen the recovery time.



7. MODULATION & WIDTH

R-190 includes modulation and stereo width controls to help you shape movement and space in your reverb. These tools work in all modes and can make your reverb sit wider, deeper, or more alive.



MODULATION

Adds subtle movement by slightly modulating the reverb's delay times. This prevents metallic combing and makes the reverb sound smoother and more natural.

- **Low (1–30):** very subtle movement
- **Mid (31–70):** gentle chorus-like motion
- **High (71–100):** more obvious swirl and movement

WIDTH

Adjusts the stereo width of the reverb tail (wet signal only). The dry signal is not affected.

- **0:** mono
- **1–50:** narrow to moderate width
- **51–100:** wide to maximum stereo field



TIP: Wider settings create more space, but use with care on dense mixes. Try 40–70% for most sources.

DENSITY

Controls how dense or diffuse the reverb tail feels. Lower settings keep more space between reflections. Higher settings build a thicker, more saturated reverb cloud.

- **Low:** open, airy, more space between reflections
- **High:** thick, full, more continuous tail

HOW THEY WORK TOGETHER

Use **MODULATION** for movement, **WIDTH** for space, and **DENSITY** for thickness. Small changes can make a big impact. Start subtle and build until it feels right.

EXAMPLE STARTING POINTS

SOURCE	MODULATION	WIDTH	DENSITY	NOTES
Vocals	20–40	30–60	Low–Mid	Keep subtle and natural
Drums	40–70	60–100	Mid–High	More width and density
Guitars	20–50	40–80	Mid	Balanced and clear
Synth / Pads	50–80	70–100	High	Big and immersive



8. WORKING WITH R-190

R-190 is designed to be simple to dial in but deep enough for any situation. Here's how to get the most out of it in your mixes.



START SIMPLE

Begin with a reverb mode that fits your source. Set MIX around 20–30%, TIME to taste, TONE around 5, and PREDELAY to 10–25 ms for most sources.



BALANCE THE MIX

Use the MIX control to blend the reverb with your dry signal. More mix for obvious space, less mix for subtle depth.



SHAPE THE SPACE

Adjust TIME to set the length of the reverb tail. Use TONE to refine the brightness and character of the space.



ADD MOVEMENT & WIDTH

Use MODULATION for movement and WIDTH for stereo image. Subtle settings often sound the most natural.



CONTROL DENSITY

Use DENSITY to control how thick or diffuse the reverb tail is. Lower settings leave more space in the mix; higher settings create a lush, full wash.



KEEP IT CLEAN

Use DUCKER to automatically reduce the reverb when the input is present. This keeps vocals and key elements clear.



TRUST YOUR EARS

Every source and mix is unique. Use your ears and small moves to dial in the perfect space. R-190 is musical — enjoy the process.



PRO TIP

Automate MIX, PREDELAY, or TIME for transitions and build-ups. Small changes over time add life and excitement to your mix.



9. TIPS & BEST PRACTICES

These tips will help you get professional results with R-190 in any mix. Small changes and good listening make all the difference.



1. LISTEN IN CONTEXT

Always adjust R-190 while the full mix is playing. What sounds good soloed may not sit right in the mix.



2. SUBTLE IS POWERFUL

Small adjustments often sound better than extreme settings. Start subtle and build up.



3. USE PREDELAY WISELY

More pre-delay separates the source from the reverb and keeps the mix clear. Less pre-delay blends the reverb closer.



4. TAME THE LOW END

Keep low frequencies in check. Use EQ cut (LOW) if needed and control DENSITY to avoid a muddy mix.



5. DUCKER IS YOUR FRIEND

Enable DUCKER for vocals and busy sources. It keeps the reverb out of the way when it matters most.



6. MATCH THE ROOM TO THE SONG

Choose a reverb mode that fits the vibe and size of your track. Don't fight the room — work with it.

QUICK SETUP STARTING POINTS

SOURCE	MODE	MIX	TIME	tone	PREDELAY
Vocals (Lead)	HALL	20–30%	5–7	4–6	15–25 ms
Vocals (BGV)	ROOM	15–25%	3–5	4–6	10–20 ms
Snare	CHAMBER	15–25%	2–4	5–6	10–20 ms
Drums (Bus)	HALL	10–20%	4–6	3–5	15–30 ms
Guitar	ROOM	15–25%	3–5	4–6	10–25 ms
Keys / Pads	HALL	20–35%	6–8	4–6	20–35 ms

COMMON MISTAKES TO AVOID

- Too much **MIX** — makes the mix washy.
- Too long **TIME** — loses clarity and energy.
- Too much **DENSITY** — creates a mud bath.
- No **PREDELAY** — reverb sits on top of the source.
- Forgetting **DUCKER** — reverb competes with the dry signal.



PRO TIP

Use **EQ CUT (LOW)** and **EQ CUT (HIGH)** to shape the reverb tail. Cutting low end keeps it clean. Cutting high end can make long reverbs smoother and less harsh.

TRUST YOUR EARS

There are no rules in reverb — only good and better.
Try things, break the rules, and find your sound.
R-190 gives you the tools. Your ears make the music.



10. SPECIFICATIONS

Here are the technical specifications for R-190 so you know what's under the hood.

TECHNICAL SPECIFICATIONS		
	AUDIO QUALITY	64-bit floating point processing
	SAMPLE RATE	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
	FREQUENCY RESPONSE	20 Hz – 20 kHz
	DYNAMIC RANGE	> 110 dB (typical)
	SIGNAL TO NOISE RATIO	> 105 dB (A-weighted)
	INPUT / OUTPUT	Stereo In / Stereo Out
	MODES	Plate, Room, Hall, Chamber, Ambience, Echo
	CONTROLS	Input, Mix, Output, Reverb Mode, EQ Cut (Low/High), Pre-Delay, Time, Tone, Ducker (Amount/Recovery), Modulation, Width, Density, Bypass, Power
	DISPLAY	OLED parameter display with real-time feedback
	PLUG-IN FORMATS	VST3, AU
	COMPATIBILITY	macOS 10.13 or later (Intel & Apple Silicon) Windows 10 or later (64-bit)
	LATENCY	None

BUILT FOR MUSICIANS

R-190 is optimized for creativity and workflow.
It's light on your system and heavy on inspiration.



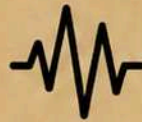
11. CREDITS

R-190 was created with passion for sound, design,
and the art of making music.
Thank you for choosing VTEK.



DEVELOPMENT

Vtek



DSP ENGINEERING

Vtek



DESIGN

Vtek



SOUND AND TESTING

Vtek Audio Plugin



GRAPHIC & ARTWORK

Vtek Audio Plugin



SPECIAL THANKS

To all the engineers, producers,
and artists who inspire us to
build better tools every day.



OUR MISSION



*To build audio plugins that sound great, look timeless,
and empower music creators everywhere.*

VTEK AUDIO PLUGINS

Crafted in Nigeria • Inspired by the World

www.vtektheaudio.com



VTEK AUDIO PLUGINS