

VCE 90

A half-rack electric piano module with five synthesised pianos, two of which play on every note, mixed by how hard you play.

A Lab plug-in. The Lab is where new GFX plug-ins are built in the open: they may change sound or controls between versions.



Overview

VCE 90 is an electric piano module in the spirit of the 90s rack EP modules. It has five pianos, all synthesised (no samples): TINE, an FM tine piano with a bell-like attack; REED, an FM reed piano that barks when played hard; PLUCK, a short, bright sticky-reed pluck; CLAV, a plucked string with a pickup and damper; and BUZZ, a buzzy pulse-wave keyboard. After the pianos come drive, tone, a stereo pan vibrato, chorus and an autowah.

Every note plays two of the pianos, a SOFT piano and a HARD piano. Gentle playing brings the SOFT piano and hard playing the HARD one; SPLIT sets the velocity where they meet and BLEND how gradually one turns into the other. Picking the same piano in both rows gives that piano alone, as on the Stable VCE 90.

Reach for it for

- Tine pianos that bark when you dig in
- Soul, gospel and neo-soul keys
- Funk clav and plucked keyboard parts with accents that change character
- Dirty, driven 70s keys

- Wah keys in time with the project

Playing it

VCE 90 is an instrument: it has no audio input and makes its sound from MIDI.

1. Insert VCE 90 on a track.
2. Arm the track for recording and set its input to your MIDI keyboard (or draw notes in a MIDI item).
3. Play softly, then harder, and watch the amber line in the velocity window: it marks the last note, and the two curves show how much of each piano it got.
4. Pick different pianos in the SOFT and HARD rows, then move SPLIT and BLEND until the change falls where your playing wants it.

It plays up to 12 notes at once. It responds to the sustain pedal (CC64), pitch bend (plus or minus 2 semitones) and all-notes-off (CC120 and CC123), and releases held notes when the transport stops. Incoming MIDI is passed on down the chain.

Controls

The header

PRESETS, arrows and display	PRESETS (or a click on the display) opens the list of presets; the arrow keys step through them. A preset sets the two pianos, SPLIT, BLEND and the effect controls; DRIFT, VOLUME and the output stage are left as they are. The presets can also be chosen from REAPER's parameter list (Preset), for screen-reader users.
MIDI	Lights when a note arrives.
OUTPUT	Folds the output stage out below the panel, and away again.
S / M / L	Panel size: small, medium or large. The panel also scales to fit the plugin window.
?	Opens a pop-up with the design credit, the GFX website address and the address of this manual. Click anywhere to close it.

PIANOS

SOFT	The row of keys that picks the piano for gentle playing: TINE, REED, PLUCK, CLAV or BUZZ. The lit key is the one in use.
HARD	The row of keys that picks the piano for hard playing. With the same piano in both rows, that piano plays alone.
Velocity window	Shows how much of each piano a note gets across the velocity range, soft on the left to hard on the right: the blue curve is the SOFT piano, the orange curve the HARD piano. The amber line marks the last note played.

Each note keeps the mix it was struck with, so changing the pianos, SPLIT or BLEND while notes are sounding changes only the notes that follow, and never clicks.

VELOCITY

SPLIT	The velocity (1 - 127) where the two pianos are heard equally, 90 by default. Lower it and the HARD piano comes in with lighter playing.
BLEND	How gradual the change is, 0 - 100% (40% by default). At 0 the change happens over about 4 velocity steps, almost a switch; at 100% it is spread across the whole range, so most notes have some of both.

DRIVE

DRIVE	A gentle, slightly uneven saturation, 0 - 100%. Low settings only round off the loudest peaks; high settings give a growling, overdriven piano.
TONE	A low-pass tone control, 0 - 100%. Lower is darker.

VIBRATO

RATE	The speed of the stereo pan vibrato, 0.5 - 10 Hz.
DEPTH	How far the sound swings between left and right, 0 - 100%.

CHORUS

DEPTH	The amount of chorus, 0 - 100%.
RATE	The chorus speed, 0.1 - 5 Hz.

AUTOWAH

SENS	How strongly the wah follows your playing (ENV), or how far it sweeps (the timed modes), 0 - 100%.
RANGE	How high the wah sweeps, 0 - 100%.
Mode display	Click it for the menu: ENV follows your playing; 1/4, 1/8 and 1/16 sweep in time with the project tempo, locked to the beat while the transport runs.
Q	The sharpness of the wah, 0 - 100%.
MIX	How much of the wah is heard, 0 - 100%. At 0 the wah is off.

MASTER

DRIFT	See Drift below.
VOLUME	The output level, -24 to +6 dB.

Output stage (OUTPUT)

MONO	Makes everything below the set frequency mono, 20 - 500 Hz (fully left = OFF).
WIDTH	Widens the stereo image above the MONO frequency, from +0% up to +100%.
SAT	Band saturation on the way out, 0 - 100%: only the lows and highs are saturated.
BIAS	How uneven the saturation is, 0 - 100%.
LO BAND / HI BAND	Where the saturated low band ends (40 - 400 Hz) and the high

	band starts (2 - 16 kHz).
CEILING	The level of the soft output clipper (always on), -24 to -0.3 dB.

Drift

DRIFT (0 - 100%, 25% by default) makes the module wander slowly: the pitch (up to 20 cents at 100%), the tone, the vibrato and chorus speeds and the wah's centre. The two pianos also drift in tuning on their own (up to 8 cents each at 100%) and each note is a few cents off in each piano, so where both are heard they beat gently against each other. At 0 nothing moves.

Presets

Soul Tine	Tine piano with a REED bark on hard notes, a little drive, vibrato, chorus and an envelope wah.
Clean Tine	The tine piano alone, nearly dry.
Suitcase	Tine with the reed on hard notes and a deep pan vibrato.
Gospel Wah	Tine and reed, driven, with a strong envelope wah.
Neo Soul	Tine with a bright pluck on top when played hard, soft chorus and a gentle wah.
Reed Bark	Reed piano, turning to BUZZ only on the hardest notes, with drive.
Reed Trem	Tine to reed over a wide blend, with a deep pan vibrato.
Pluck Pop	Pluck with a clav snap on the accents, and chorus.
Funk Clav	Pluck to clav from a low split, with a strong envelope wah.
Sync Clav	The clav alone with a wah sweeping in sixteenths, in time with the project.
Buzz 70s	Buzz keyboard with the reed on hard notes, and chorus.

Tips

- Set BLEND low for a clear change at one velocity, so one piano is your normal sound and the other answers only when you play an accent.
- Set BLEND high for a piano that gradually brightens and gains bite as you play harder.
- If the HARD piano never appears, lower SPLIT: some keyboards rarely send velocities above 100.
- The presets are matched in level; the pluck and clav presets sit a little lower, because their sharp attacks sound louder.

File: gfx-lab-g-vce-90.jsfx