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MICROPHONES Choose one of two mics and their position in the room

SIGNAL FLOW Call up a graphical routing summary

REVERB TYPE Mirror and Stone join the Studio 2 Chamber

TIME X Extend or shorten the reverb duration, from 50-150%

DRIVE Dial in characterful

tape saturation for warmth or fuzz _

FEEDBACK FILTERS Shape the sound of the delay feedback _

FEEDBACK . Tweak the amount of tape delay feedback applied

OUTPUT

Adjust left and right times together or independently

MODULATION Analogue-style pitch wobbling

MIX Set the level of the

reverb signal and dry/wet balance

SPEAKER

facing options

Two very contrasting speakers, and two

FILTERSTO CHAMBER Tweak the chamber input frequencies

Waves

Abbey Road Chambers \$199



One of the most recognisable and definitively fab room reverbs in the history of music can now be yours in plugin form

Once upon a time (or maybe twice...), the easiest way to add reverberation to a vocal or instrument in the studio was to use an echo chamber. This was a small, reverberant room housing a speaker for playback of the source signal and microphones for recording its reflections; and the most famous example in the world was - and, indeed, still is - the one attached to Abbey Road's iconic Studio Two.

Chambers of secrets

Abbey Road Chambers (VST/AU/AAX) is a plugin emulation of that legendary space, and the groundbreaking STEED (Send, Tape, Echo, Echo, Delay) setup it became part of, alongside a tape delay and the studio's REDD mixing console.

Waves have captured the sound of the echo chamber as impulse responses for convolution processing, and modelled an original BTR tape machine and the REDD EO. The tape delay and chamber are set up specifically to replicate the

STEED implementation - a technique conceived at Abbey Road in the 50s and used on countless tracks by many well-known artists, most notably The Beatles, It involves feeding the output of the tape delay into the echo chamber, as described in Let it flow, right.

While the original Studio Two 'Chamber 2' Reverb Type - with its tiled surfaces and

You also get IRs captured in Abbey Road's Mirror Room and Olympic Studio's Stone Room

diffusion pipes - is clearly the main event, you also get IRs captured in Abbey Road's Mirror Room and Olympic Studio's Stone Room. The first of these is fitted with angled mirrors on all four walls, the second is bounded by rough stone walls, and the sonic differences between the three chambers are profound. 'Stone' is very dark, warm and short, 'Mirror' is bright, lively and has a longer tail, and the mid-lowemphasising 'Chamber 2' falls somewhere between the two.

While the real Studio Two chamber was traditionally fitted with an Altec 605 speaker for playback of the source signal, and Neumann KM53 microphones for picking up the reverb, Chamber 2 expands on this with an additional option in each department. The speaker can be switched to a Bowers & Wilkins 800D, while a more modern mic can be brought into play in the shape of the Schoeps MKH-2. The difference in tone between the two mics is subtle, to say

The modelled tape delay sounds fantastic, whether called on to feed the chamber or used on its own"

the least, but switching the speaker has a major impact on the character of the reverb. With its high-mid 'poke' and lack of bottom-end weight, the Altec is well suited to vocals and snares, while the B&W's flat, modern response gives a much weightier if less focused sound that's more applicable to synths, drum machines, heavy guitars, etc.

Being a chamber emulation, the reverb time is quite short, but the Time X control multiplies it by anywhere from 0.5 to 1.5. The shape and colour of the reflections and tail are also affected by the speaker and mic position. In Chamber 2, the speaker can be set pointing into the room for plenty of direct signal, or facing the wall for greater diffusion. The mics, meanwhile, offer three positions: Room points them at the speaker, with the diffusion pipes behind them; Wall puts them up against the back wall for maximum reflections; and Classic points them at the wall with, again, the pipes behind. Note that the diffusion pipes don't move at all; and with the pipe-less Mirror or Stone Reverb Type active, you're restricted to the B&W/Schoeps combo, with Near or Far mic positions.

Roll tape

The modelled stereo tape delay sounds fantastic, whether called on to feed the chamber or used on its own. Delay times for the left and right channels can be set freely (1-500ms, the default 111ms emulating a 30ips BTR machine with a 3.3" gap between the play and repro heads) or synced (1/4 to 1/64T), independently or linked. A trio of filters (high- and low-pass, and a +/-6dB bell at 3.5kHz) is inserted into the feedback path for reining in excessive frequency build-ups and general shaping. Saturation is on tap via the gain-compensated Drive knob, and tape-style pitch modulation is applied by raising the Mod control.

The output from the tape delay is also filtered and EQed before it hits the chamber, in the



The Stone Reverb Type is the darkest of the three, while Mirror is, by some margin, the brightest



In case you need a reminder, the Signal Flow button

Let it flow

Abbey Road Chambers comes as three plugins, each setting up a particular channel configuration. For the authentic Studio Two experience, you'll want to call up the Mono-to-stereo version, which feeds a mono signal into the speaker in the chamber, for pickup by three mics: centre, left and right. The other two options are Mono-to-mono, where a mono input enters the chamber and is recaptured by the centre mic only; and Stereo, which sees each side of a stereo input being processed as separate mono-to-stereo signals, then summed to stereo.

The signal flow within the plugin is fixed in order to accurately recreate the STEED setup. The wet signal hits the tape delay first, then splits into two paths, one of which goes to the chamber via the REDD chamber filters, the other feeding back into the tape delay input via the feedback filters. It is possible to bypass the tape delay or zero the reverb when you need to use either on its own, of course, although a bypass button on the chamber wouldn't go amiss, as having to pull the Reverb fader down to kill it entirely feels needlessly old-fashioned.

Should you want to see the signal flow visualised at any point, clicking the Signal Flow button at the top of the interface pops up a handy schematic.

Filters To Chamber section. Models of the REDD console's 24dB low- and high-pass RS 106 filters handle the extremes, and the RS 127 +/-10dB bell EQ can switch between 2.7, 3.5 and 10kHz.

Come together

When we first clapped eyes on Abbey Road Chambers, we assumed we'd be able to relocate the mics, speaker and pipes as we saw fit, and there was a tinge of disappointment as we realised we were limited to only a few preset positions. That dismay disappeared, though, as we fired it up and instantly fell under its faux electro-acoustic spell.

Using the default STEED setup (Chamber 2, Altec speaker, Neumann mics), it really does lend vocals a recognisable vintage ambience, and the positioning options are perfectly adequate. In spite of that, for many potential users, the shrewd addition of the B&W speaker, and Mirror and Stone rooms could be the clincher, greatly increasing the effect's range in terms of frequency response and tone, and making it a far more versatile and contemporary proposition than it at first seems.

Architecturally idiosyncratic and sonically outstanding, this charming reverb/delay is one of the plugin highlights of the year. cm

Web www.waves.com

Alternatively

Eventide Tverb cm233 » 9/10 » \$249

This amazing emulation of Bowie's Heroes reverb is also much more flexible than the blurb suggests

UAD Ocean Way Studios cm194 » 8/10 » £260

Another famous recording space made virtual to great effect

Verdict

For Gorgeous, intuitive GUI Incredible delay and filter modelling, and room emulation B&W speaker and extra room types greatly expand its capabilities Impressive 'artist' preset library

Against Seriously CPU-hungry Mics and speaker can't be moved freely

A superb reverb/delay that offers much more than 'just' a flawless emulation of Abbey Road's Studio Two chamber

9/10