ALICE COOPER
REVOX
Limited Edition
00 10.2
ALICE COOPER
LIMITED EDITION
REVOX
B 77 MK III
EQ
REEL SIZE
REC LEVEL
LEFT CHANNEL
7½
SPEED
15
POWER
ON
OFF
MONITOR
TAPE
INPUT
VOLUME
REVERSE
STEREO
MONO
LEFT
RIGHT
PHONES
MONITOR
REC • L
ON
MIC
INPUT LEVEL
MIC HI
MIC LO
OFF
R→L
L→R
LINE
RECORD • LEFT
REC • R
ON
MIC
INPUT LEVEL
MIC HI
MIC LO
OFF
L→R
LINE
RECORD • RIGHT
PAUSE
<<
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COMEBACK WITHOUT LIMITS

Following the limited „Yello" edition of its classic tape recorder, Revox now introduces a completely new B77 MK III. STEREO tests this in the Alice Cooper Limited Edition.

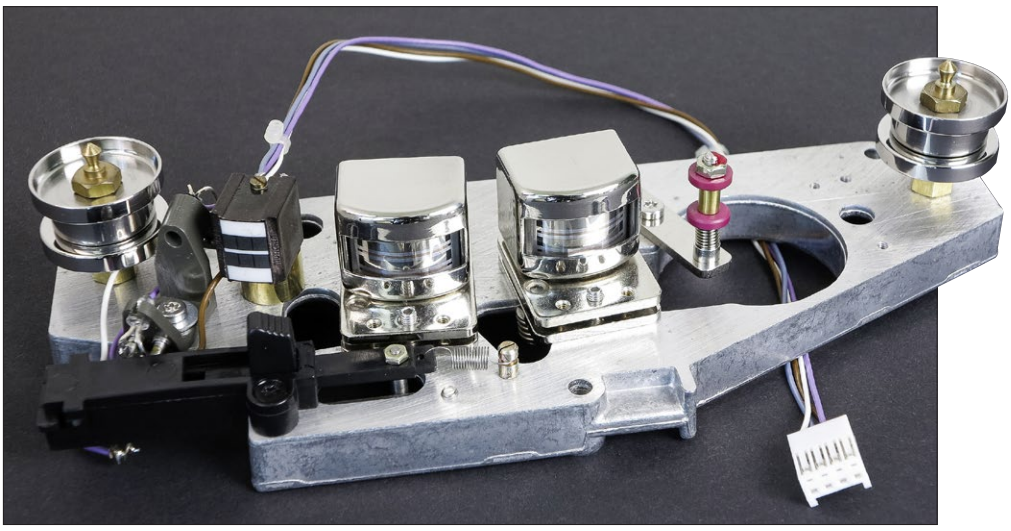
Text: Matthias Böde

It was a highlight in the analog tape world when the cult brand Revox presented a visually exciting version of its well-kept B77 MK II tape recorder legend, which is kept running by means of a comprehensive service department, about a year ago. For this, the company collaborated with the Swiss electro-pop duo Yello, in whose studio Revox recorders have always had a place. It also happened to be the case that Willi Studer had founded the company's original cell in Switzerland in 1948.

The Yello Edition, reviewed exclusively by STEREO in issue 5/2024, was strictly limited to ten units worldwide and was based on perfectly restored machines of this popular type at the Revox factory in Villingen-Schwenningen in southern Germany. A dedicated specialist department, which has access to an extensive stock of original parts, works with passion and attention to detail to keep this and all other Revox classics in mint condition.

A completely new B77

That could have passed as a more or less extravagant action to revive a tape recording myth. Against the background of current events, it however seems like the overture or the test run for a much larger project that seems to have fallen out of



A massive aluminum carrier forms the backbone of the tape head unit – from the left: erase, record and playback head, including the tape guides. Stability and accuracy are key.

The new motor for the complex capstan shaft only inherits the anchor from the earlier model.

If only RCA inputs and outputs are available on the amp, the included XLR adapters help.

time in view of the wide range of digital recording and playback media: a completely newly developed B77 MK III.

It is important to note that this is not an MK II that has been modernized here and there. Rather, Revox only took over the basic drive concept from the predecessor. From the tape head onwards, nothing is identical to the B77 MK II, which was built until 1998. The aim was to significantly improve the quality, being inspired by a Studer A810 or A812 – in other words, the standard of professional equipment.

Like the Yello machines, the B77 MK III appears completely in black, while the iconic MK II was clad in the familiar gray housing and featured a narrow silver flap that covered the less frequently used controls or the cue slider for manual control of a specific tape position. The orange VU meters of the MK II with their red flashing peak warning LEDs now appear in cool mint, which does indeed look "cool".

While it was previously possible – and remains so – to purchase a completely refurbished B77 MK II from the Revox website at prices starting at 8,980 euros, the new MK III costs a whopping 15,950 euros. Another hefty 12,000 euros more, i.e. 27,950 euros, must be invested if you want to secure it in the "Alice Cooper Limited Edition", of which only 25 units are available. With this edition, Revox is showing an additional highlight for the launch of its B77 MK III. This in itself is a small sensation and doesn't really need any additional measures to raise awareness among the tape-loving audience.

When STEREO was offered this special version with the serial number 1 for another exclusive test, we couldn't resist its spooky and beautiful appeal. However, the version licensed by the glam rock star and Revox fan and "decorated" with badges on both sides and Cooper's eyes on the tape head cover is technologically 100 percent identical to the series.

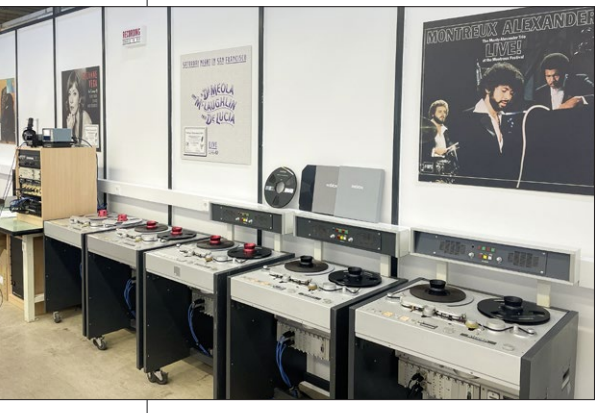
Professional equipment

However, it comes with a number of individual features. In addition to the "The Sound Of A" tape, which is only supplied

MASTER TAPE COPIES NON-STOP

Revox not only supplies tape recorders but now also prerecorded tapes on a larger scale. After acquiring the tape supplier Horch House, they offer the full range.

It is limited in the number of providers and products, but active and diverse: the market for master tape copies, which many high-enders regard as the audiophile holy grail within the world of sound carriers. It is said that it is impossible to get closer to the original recordings in terms of quality, and a good share of the machines still operated and restored today solely serve the purpose of reproducing these elaborately prerecorded tapes in high quality.



The pre-recorded tapes are produced directly at the Revox factory on several Studer A80s.

Revox has long been one of the providers with its Analog Master Tapes Collection. Since the beginning of 2025, they have significantly expanded their range by taking over the specialist Horch House. Currently, around 130 titles from different music genres are available. Among them are highlights from Suzanne Vega, Ella Fitzgerald, and also the super guitar live album Saturday Night In San Francisco. There's an overview at revox.com.

The transfer takes place in a copying station located directly at the factory. There are now eight professional Studer A80 machines, which record the empty tapes in two-track technology at 38 cm/sec. This is done at 1:1 speed to keep quality losses as low as possible. The finished tapes come on a metal reel in a slipcase with a certificate of authenticity and accompanying material to the customer, which also provides information on the tape type, the necessary equalization, as well as the magnetic flux density used during the recording, so that the machine can be optimally adjusted to it.

All this has its price. It starts at 480 euros here. A consolation and bonus for customers of a B77 MK III: They receive a voucher for one master tape copy of their choice.

The standard version of the B77 MK III has its VU meters and the counter in a mint finish.

with the machine on a suitably labelled black reel and matching empty reel, which contains this Cooper song as well as other previously unreleased live tracks by the shrill artist, this includes a set of matt red anodized NAB adapters for the tape plates. In addition, the backlit level meters also shine in red here.

Matching this and based on Revox's Studiomaster T700 (review in STEREO 7/2024), the "Alice Cooper Limited Edition" T77 turntable, limited to 50 units, is available with Ortofon's sophisticated Quintet Black S MC cartridge at a price of 8,950 euros. Instead of sensor fields, it has the buttons of the B77, and in addition to a "The Sound Of A" LP cut at 45 rpm, which is only available in this set like the Alice Cooper tape, a record weight with a striking NAB look is also included.

And a set of XLR/RCA adapters is also included in the T77 package. This stems from the fact that, like the tape recorder, the record player also only has balanced XLR connections, as are commonly used in the studio environment. As the B77 MK III naturally not only has outputs, but also inputs for recording purposes, it comes with two pairs of different adapter plugs (depending on the application) from quality supplier Neutrik.

The B77 MK III also underlines its more professional orientation compared to its predecessor by offering the possibility to switch between CCIR and NAB equalization for the tapes. This is 35 and 50 microseconds respectively and is important for the frequency-linear playback of prerecorded tapes. Otherwise, there is a slight high-frequency boost of 2.5 decibels at ten kilohertz (NAB instead of CCIR) or the corresponding drop (CCIR instead of NAB).

When purchasing prerecorded tapes, there is usually a note on the packaging. Depending on the origin, the specifications vary. On tapes of European origin, it usually says „Equalization: CCIR". Tapes from the USA, on the other hand, follow the NAB standard. Regardless, the new Revox is prepared for all possibilities.

Perfectly adaptable to the tape

To tape amateurs, the "Flux" button neighboring the "EQ" button may seem even more cryptic. This is used to switch the magnetic flux that remains on the tape after it has been magnetized by the head. This value must be adapted to the type of tape so that the signal-to-noise ratio, dynamic range and distortion factor are in the ideal range. Otherwise, undesirable compression effects will occur due to overloading or the magnetic capacity of the tape will not be fully utilized at the expense of noise. To ensure that the level is correct, it

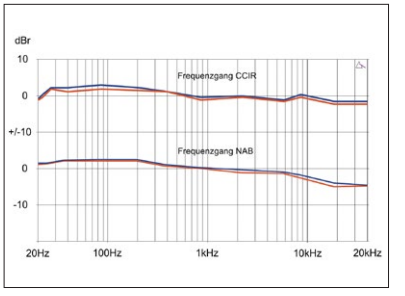
Matching the B77 MK III in the Alice Cooper Edition, there is a corresponding limited turntable TT77, limited to 50 units, with control buttons like on the tape recorder, priced at 8,950 euros.

THE B77 MK III IN THE LAB

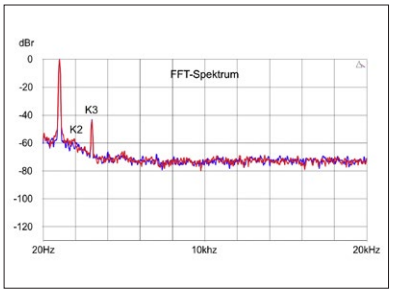
The new Revox delivered very good measurements.

Even our seasoned lab technician and dedicated tape expert applauded: Not only did the new Revox show exemplary frequency responses at minimum distortions with both CCIR and NAB equalizations (see diagrams), but the specifications of the highly precise test tapes were also practically reproduced 1:1. And this was not only regarding the voltages to be reached according to studio standard via the powerful, low-impedance output stage. The VU meters also stood rock solid exactly at the level points where they belonged. Bravo!

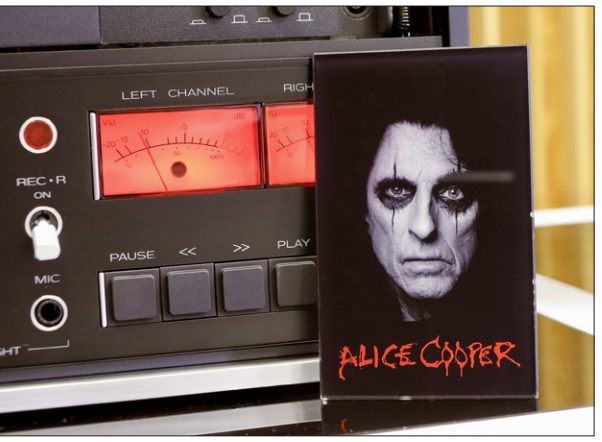
Both facts underline the great care taken in manufacturing and calibrating the B77 MK III, as do the extremely accurate channel accuracy and the barely detectable deviation from the standard speeds. With the 1,000 hertz test tone, for example, the figure on the analyzer fluctuated within half a hertz of the decimal point, which also gives the synchronization an excellent rating. The high signal-to-noise ratios – whether determined with or without pre-magnetization – also explored what is technically feasible with tape machines.



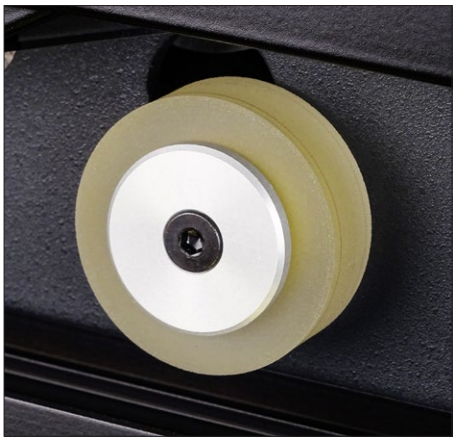
Especially with the CCIR test tape, the frequency response is exemplary smooth.



The FFT diagram shows tape-typical distortions to a very minor extent.



Alice Cooper scowls from the plaque – the VU meters glow in striking red.



The new B77 MK III's pinch roller, made of light rubber, runs in two ball bearings.

Studio or HiFi level? The output voltage can be raised by six decibels.

is also necessary to switch between the alternative 320 and 510 nanowebers per meter during playback, depending on how the tape was recorded.

The SM900 tape, for example, which has a correspondingly high dynamic range and on which Revox recorded Alice Cooper's music in its copy station (see box), was magnetized at 510 nWeb/m at 38 cm/sec. In the case of an SP90, which is otherwise used there, it would probably have been 320 nWeb/m.

If the B77 MK III is integrated into a calibrated studio environment with standardized voltages and levels, its likewise new "Rec Level" button can be set to "Cal". For hi-fi use, channel-separated rotary knobs offer the option of manual level control, using the level meters as a guide. The toggle lever located near the connections, which can be used to raise the output level by six decibels to the level we are used to in our field, has the same background.

In line with its commitment to quality, Revox only supplies its new machine as a two-track version with tape speeds of 19 and 38 centimetres per second. A four-track version with 9.5/19 cm/sec, which is often chosen for the MK II and allows tapes to be recorded on both sides, similar to cassette tapes, is not available. However, this also means that a standard 762-meter tape is finished after 66 (19 cm) or around 33 minutes (38 cm). With prices of up to 90 euros per tape on a metal reel, this is an expensive pleasure either way.

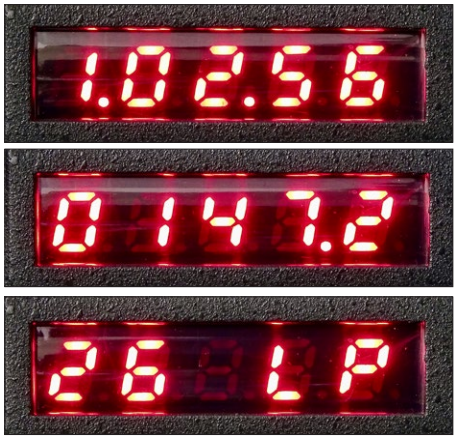
New technology for the MK III

We believe that most machines will be used to play back prerecorded tapes, although these are expensive, or are occasionally used to record rare vinyl records as well as public or private live concerts in the highest quality. For this purpose, the Revox still has two microphone inputs. And it is not without reason that the B77 MK III, which weighs a good 18 kilograms, has a handle, red anodized in the Cooper version, for easier transport.

In other words, a lot is new in the B77 MK III. Revox has however done away with the fine speed adjustment of the MK II. This is only a minor inconvenience, though, as it was mainly used to compensate for speed deviations of other tape machines or as a niche option for musicians who play to tape and want to raise or lower the pitch a little. However, the "Capstan Speed" socket in the connection panel provides external access to this parameter. There is also a contact point for the optional cable remote control there.

But it's not just the exterior that has changed. In line with the intended uncompromising B77 comeback without limits, a total of around 400 parts have been newly manufactured for the MK III. For example, Swiss Steel cooked up five tons of special steel for the high-precision capstan shaft, which requires 17 production steps and runs through the belt together with the pressure roller, which is now made of a light-colored rubber. Instead of the conventional bearings, the roller is now guided by two ball bearings, which, according to the manufacturer, improves the stability and accuracy of the drive.

Improved tape heads from the trusted Belgian supplier as well as more sophisticated circuit boards for the recording and playback sectors of the machine are also supposed to contribute to the increase in quality. The B77 MK III, which is kept in motion by three motors controlled by an optimized logic controller, takes exactly 102 seconds to rewind a 762-metre tape and produces very clean windings when doing so; this is of course also true during normal operation.



Hours/Minutes/Seconds, Seconds plus tenths or tape type – the display shows it.

The new Revox has only three-pole XLR connections plus a set of RCA adapters.

RECORDING – CLASSIC AND MODERN

At the meeting of the analog B77 MK III and Nagra's digital recorder Seven in the STEREO listening room, the old and modern HiFi world collided directly.

As the Revox B77 MK III has a fully-fledged recording branch, we wanted to know how good it sounds with homemade recordings – and whether it could possibly stand up to a modern, high-bit-capable digital device such as Nagra's compact Seven. To do this, we went to the respective limits: 38 cm/sec and 510 nWb/m with perfectly calibrated SM900 tape versus 24 bit/192 kilohertz. We selected the level so that the red peak LEDs on the tape machine only flashed briefly at most, while the level bars on Nagra's digital recorder, which does not allow any clipping due to its design, always remained below the minus three decibel mark.

We played the music from first-class recorded vinyl records on our reference turntable Transrotor Rondino Nero, completed by the in-house tonearm TRA 9 as well as the MC cartridge Figaro from the analog specialist.

And it quickly became apparent that Revox's new machine was in no way willing to let its digital challenger take the cake. For example, the B77 MK III delivered the lively, extremely detailed and emphatically three-dimensionally captured opening track from Diana Krall's album "Live In Paris" with practically the same rapid timing, wide-ranging spatial representation and fine as well as coarse dynamics as the original record. The sparkling atmosphere of the concert was retained.

The Nagra also accomplished all of this, but although its performance was emphatically straightforward, it was also more sober. It was as if the Revox particularly loved the shimmering and buzzing in the music and therefore gave it a little extra touch.

In fact, this can be considered an "audiophile fingerprint" of tape machines, just like the full, fluffy bass, which is also characteristic of the Revox and gives the sound more color and expression. This can be heard well in James Taylor's "Her Town Too", rich in deep sounds, which had a particularly insistent, emotional and dominant effect on tape. The clear conclusion: Tape rightly has many fans and is far from over!

The Revox B77 MK III faced the Nagra digital recorder Seven (v.) – both are fascinating.

The adjustable headphone output – essential for monitoring in mobile use in particular – has also been redesigned and is now said to drive even high-impedance headphones to a potent level. Okay, a few decibels more maximum level would have been nice at this point.

A big one in terms of sound

However, this is at most a hint of a criticism of the impeccable, even breathtaking performance that Revox's B77 MK III delivered. Although we didn't have a direct sound comparison with the previous MKII, which we had only recently heard in the form of the Yello machine, the editorial team still has a number of familiar, top-sounding tapes from the production of the "STEREO Festival of Master Tapes", which we had heard on several occasions.

And despite the flawless performance of the MKII, the new MKIII does indeed seem to have gone one better in terms of sound. This was particularly noticeable in the form of a perceived improvement in terms of the sovereignty, inner order and, yes, a certain high-end sophistication on offer. These are exactly the points that separate the performance of even a two-track B77 MK II from that of the manufacturer's studio machines.

One prerecorded tape after another was fixed and listened to using the NAB adap-

Recognizing the professional approach of the MK III: The equalization can be switched between CCIR and NAB; the magnetic flux density can be switched from 320 nanowebers per meter to 510 nWb/m.

Push of a button: calibrated level via the mixing console (Cal) or recording level on the device.

ters, whereby we gained the impression that the performances had a little more flair and accuracy when the "Level Out" level switch was in the "0 dBu" position. Then, the magic of the distinctive interplay between the Italian duo Gabriele Mirabassi and Roberto Taufic on clarinet and guitar in the lyrical, incredibly authentically captured "Gelosamente Mia Voce" unfolded wonderfully. The performance had both a light, lively breath and an almost tangible physicality.

Ella Fitzgerald's big band song "Sunshine Of Your Love", on the other hand, offered a dashing intensity. The overtone sector possessed radiance without unnatural effects such as sharpness or narrowness. This is not least due to the precise positioning of the tape head in relation to the tape. We had already noticed this in the superb laboratory run (see box). The 16-kilohertz azimuth test tone on the test tape showed no phase differences between the channels.

No limits for the sound

Munyungo Jackson's multifaceted "Columbiana", captured as complex as transparent by David Manley's Vital label with tube equipment also benefited from this. The Revox precisely captured and outlined the situation, including the peculiar acoustics of the wood-paneled hall in which the inspiring recording had once taken place. A listening experience in a class of its own!

"Wade In The Water", Margriet Sjoerdsma's song cover from her tribute album for Eva Cassidy, captivated with natural timbres and came forth without any artificial or technoid touch. In addition, the smooth, even musical flow was once again impressive.

Was that all just coincidence? We rewound to the beginning of the track with the pleasantly running machine, whereby the electronic counter, which displays in two time modes and which we had previously zeroed, is a great help in finding certain parts of the tape. We then swapped the XLR cables, which was a little fiddly due to their thick plugs in combination with the closely spaced and recessed connectors.

Of course, we noticed the slightly different tonal character of the other cables. But what remained was the enticingly glowing analog sound cosmos coming from a sonorous fundamental tone, which made it clear to every listener that the Revox B77 MK III is also a comeback without limits in terms of sound. ■

The plaque on the side proves it: We had number 1 of the Alice Cooper Limited Edition.

REVOX B77 MK III		
Product type		Tape Recorder
Website		revox.de
Price in Euros		15,950 (Alice Cooper Limited Edition around 27,950)
Dimensions (W x H x D) in cm / Weight in kg		45 x 41.5 x 21 / 18.2
German distributor / phone		Revox Germany / +49 7721 87040
Track Format		Two-track
SOUND	**55 %**	**very good 1.2**
Sound Quality		Tape at the top: stable, homogeneous, and three-dimensionally plastic sound image
MEASUREMENTS	**15 %**	**very good 1.4**
Frequency response		very good
Speed deviation (in percent)		very good (0.01)
Maximum output voltage headphones (in millivolt)		satisfactory (38)
Level deviation CCIR (at 100 Hz / 10 kHz; in decibels)		very good (+2.5 / –0.5)
Rewind speed (762m tape in seconds)		good (102)
Maximum output voltage RCA / XLR (in millivolt)		very good (– / 1.05 Volt)
Output impedance RCA / XLR (in ohms)		good (– / 75)
Standby power consumption (in watts)		very good (19)
EQUIPMENT	**20 %**	**satisfactory 2.6**
RCA and XLR available		no (only XLR)
Haptics / Workmanship		very good
Headphone volume adjustable		yes
Dolby B		no
Switchable equalization		yes
Recorder function / Microphone inputs		yes / yes
Speeds (in cm/sec)		19 / 38
Fine speed regulation		no (only external)
Hard mains switch		yes
HANDLING & OPERATION	**10 %**	**very good 1.3**
Manual level control		yes
Quality of the manual		very good
Operation on the device		very good
Warranty in years		2
TEST RESULT		**very good 1.5**