

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity

These Crumars are not among the poly-analog synthesizers that have found a permanent place in the Valhalla of vintage instruments. They are unspectacular in appearance, their characteristic acoustic is rarely heard on the charts, their artistic legacy will probably never be significant. And yet, they have musical class, creating expressive sounds that even famous contemporaries – legends such as the Roland Jupiter-8 or the Sequential Prophet-5 – have not been capable of.



 GREATSYNTHESIZERS.COM

We're talking about Crumar BIT ONE, BIT 99 and BIT 01, which livened up the low-budget synth market between 1984 and 1988. To be clear: A BIT is certainly not a Jupiter ... and not a Prophet. That's not the point. But: The BIT ONE / BIT 99 / BIT 01 have a dynamic expressivity and special sound characteristics that – let's be honest here – you won't find in any of the big, classic synthesizers.

CRUMAR[®]



 GREATSYNTHESIZERS.com

In reality, there's no justification for comparing the BIT instruments with those classics, due to their individual architecture (DCOs, velocity and MIDI). The fact is: Some synthesizers have gone down as **legends**, while other synthesizers have only made it to a **marginal note** in music history. If you listen to BIT ONE / BIT 99 / BIT 01 bass sequences or lead lines today, you may ask yourself: *"Why? Were is the insignificance here?"*

CRUMAR[®]

LEM[®]



 GREATSYNTHESIZERS.com

A brief history of the BIT family

In the mid-1980s, [Crumar](#) brought a whole series of semi-professional MIDI instruments onto the market. The **BIT ONE**, released in 1984, was the first of the new synth generation. According to synth literature, **Luciano Jura** was the chief designer. And **Mario Maggi** had a hand in it, which comes as no surprise, considering parallels to his glorious [Elka Synthex](#).

The BIT ONE, released in two filter revisions – SSM2044 and CEM3328 respectively – had 6 analog voices (12 DCOs), MIDI, program memory, a velocity sensitive keyboard, stereo outputs and smooth metal side panels. Unison, detune control and noise control were among its extra extras. It was in production for just a year, and it was only available in black.



Crumar BIT ONE - note the metal side panels ...

GREATSYNTHESIZERS.com

Although the BIT ONE had a slightly bigger sound than the later BIT 99 / BIT 01 (especially through UNISON mode), it had several weak points. Split / Layer sound combinations could *not* be saved. DETUNE and NOISE were *not* programmable. Its MIDI functions were poor and the keyboard was immediately disconnected once you attached a cable to MIDI IN ... *either* you played the BIT ONE *or* you controlled it via MIDI. You couldn't have both!

Whilst there is a [BIT ONE MIDI Upgrade from HKA Design](#) now in 2023 that fixes the aforementioned shortcomings (and – surprise, surprise – includes an onboard arpeggiator!), we'll leave the BIT ONE aside and focus on its successors which had essentially the same sound and were in line with the standards of a modern MIDI studio right from the beginning ...



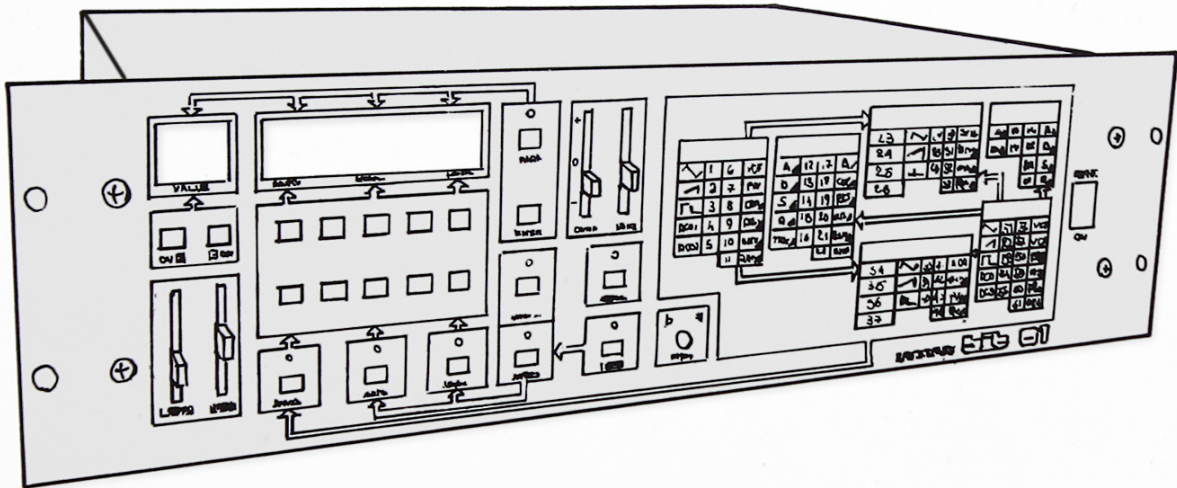
Crumar BIT ONE - note the DETUNE and NOISE slider, and the UNISON switch ...

In 1985, the **BIT 99** replaced the BIT ONE. It featured 24 memory locations for split / layer sounds, PRG CHAIN (3 chains à 33 sounds), improved MIDI, expanded split/layer/stereo functions and programmability for DETUNE / NOISE, while continuing in the CEM3328 filter tradition. It had ripped plastic side panels and was available in black and white, as was its rack version **BIT 01**.

The BIT 01 - already to be pronounced in 1984 - was originally intended as a rack expander of the BIT ONE (including unison and those additional faders, see the graphic below). But ultimately, in 1985, it became the expander of the BIT 99 and thus the BIT 01 as we know it today ...

BIT ONE: THE FUTURE

The BIT ONE has been designed as an Open System, Expandable and Renewable without limit. The heart of the BIT ONE is «software» in other words a program of its computer that can be corrected and updated in any moment. The MIDI interface is an open door in order to exchange data with present and future system. The future of the BIT ONE is above all the possibility to expand the system by adding external modules controlled by its keyboard. A significant example of this concept is represented by the BIT 01 Rack Expander.



The Crumar BIT 01 was originally intended to be a BIT ONE rack expander. (c) Crumar / BIT ONE Owner's Manual, page 35.

GREATSYNTHESIZERS.com

1985 also saw the release of the **BIT MMK** (MIDI Master Keyboard), featuring 6 octaves, VEL and AT, and a built-in sequencer. With this **control center of your entire MIDI universe (LOL)**, the Crumar instrument family including BIT ONE, BIT 99, BIT 01 and BIT MMK was complete.

CRUMAR[®]



GREATSYNTHESIZERS.com

„The BIT MASTER KEYBOARD ...

... the control center of
your entire MIDI universe.“

[MIDI MASTER KEYBOARD Owner's Manual, page 5]



 GREATSYNTHESIZERS.com



 GREATSYNTHESIZERS.com



GREATSYNTHESIZERS.com

Since Crumar had a considerable distribution network not only in Europe but also in the USA, the BIT instruments were available under several names. **UNIQUE** (to our knowledge, the US-distributor in North America) launched the BIT 99 as **UNIQUE DBK** (keyboard), the BIT 01 as **UNIQUE DBE** (expander) and the BIT MMK as **UNIQUE DBM** (masterkeyboard).



GREATSYNTHESIZERS.com



GREATSYNTHESIZERS.com

[In 2025, we got a Unique DBK in Florence. Many thanks to Lorenzo, who sold us this beautiful instrument ...]

CRUMAR[®]



GREATSYNTHESIZERS.com

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity



[GREATSYNTHESIZERS.com](https://greatsynthesizers.com)



[GREATSYNTHESIZERS.com](https://greatsynthesizers.com)

The US distributor **Music Technologies Incorporated** was also part of the family. In 1985, Dean Friedman presented the **M.T.I. BIT ONE** in his book "The Complete Guide to Synthesizers, Sequencers & Drum Machines" and called it "... a sexy European import [...] from Italy [...]."

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity

The Bit One is another sexy European import. It comes from Italy and is distributed here in the United States by Music Technologies Incorporated. Its two outstanding features are its velocity-sensitive keyboard and its unique sound.

The velocity sensitivity can be programmed to control a pretty broad range of effects. You can assign it to any one or combination of the following: Attack of the VCF, the VCF's envelope, Attack of the VCA, VCA level, Pulse Width Modulation of the DCO's, and LFO amount. That means attack, volume, timbre, vibrato, and tone can all be controlled by how fast you strike each note. I know I say this over and over again, but it's true. Every single one of these instruments has a totally different and individual sound. The Bit One's was somewhat of a surprise. You know when you see DCO's as opposed to

BIT ONE

M.T.I. BIT ONE

**\$1,395
£799**

6-VOICE POLYPHONIC

Keyboard: 5 OCTAVES (C-C), 61 KEYS

with: triangle, pulse)

BIT modes

The Complete Guide to Synthesizers, Sequencers & Drum Machines.

The definitive guide by **Dean Friedman**

Tells you everything you need to know about the latest model synthesizers, sequencers, drum machines. Also contains a special section on music software.

Axis-1

de Fairlight

possibilities

new

© The Complete Guide to Synthesizers, Sequencers & Drum Machines - by Dean Friedman, Amoco Publications, New York, 1985.

GREATSYNTHESIZERS.com

Another major Crumar distributor was **CHASE** in the UK:

“The largest UK synthesizer importer and distributor (aka The London Synthesizer Centre) in the late seventies and early to mid eighties, Chase re-badged Crumar, Jen and BIT products [...].”

(Peter Forrest, [A-Z Of Analogue Synthesisers](#), Part One A-M, page 60)

It took Chicago by storm

Best new product in 1984

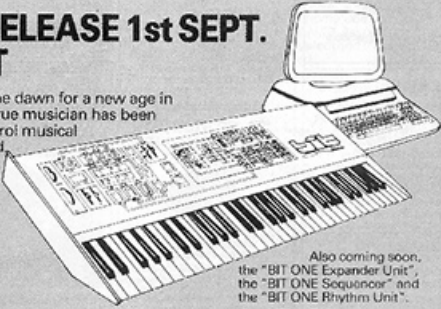
The ultimate in synthesizer technology

DUE FOR UK RELEASE 1st SEPT. DON'T MISS IT

The new "BIT ONE" heralds the dawn for a new age in synthesizers. It is what every true musician has been waiting for – the ability to control musical expressivity from the keyboard alone.

Sounds Great
The keyboard is completely touch sensitive giving you total control through the velocity of the keys over the attack and envelope of the VCF's, the pulse width modulation of the DCO's and the modulation rate of the LFO's – all by the way you touch the keys – note by note...but you'll really have to hear it to appreciate the difference this makes.

Great Sounds
In addition this six voice dual oscillator synthesizer combines the perfect blend of Digital access controls linked to Analogue filters to give a unique blend of the



Also coming soon, the "BIT ONE Expander Unit", the "BIT ONE Sequencer" and the "BIT ONE Rhythm Unit".

And The Price
Here I'm sorry you'll have to wait until next month's edition of E & MM. We'd like you to hear how good it is before we tell you how little it costs.

ROLL ON SEPTEMBER – MUSIC WILL NEVER BE THE SAME AGAIN



Only from

CHASE

LONDON 27 Chancery Street, off Euston Road London WC2H 9HT Tel: 01-257 2620/1495
MANCHESTER 18 Chancery Street, off Piccadilly, Manchester M4 1ET Tel: 01-275 0796/5
BIRMINGHAM 18 Piccadilly, Birmingham B4 6BS Tel: 01-212 231 8145



Great
The "BIT ONE" heralds the dawn for a new age in synthesizers. It is what every true musician has been waiting for – the ability to control musical expressivity from the keyboard alone.

Sounds
This six voice dual oscillator synthesizer combines the perfect blend of Digital access controls linked to Analogue filters to give a unique blend of the

£395

INTEREST FREE CREDIT

CHASE GROUP OF FIRMS	PERCENTAGE
1 YEAR	12.99
2 YEARS	14.99
3 YEARS	16.99
4 YEARS	18.99
5 YEARS	20.99

And The Price
Here I'm sorry you'll have to wait until next month's edition of E & MM. We'd like you to hear how good it is before we tell you how little it costs.

ROLL ON SEPTEMBER – MUSIC WILL NEVER BE THE SAME AGAIN

Chase Bit One

NO COMPROMISE ON FEATURES

A perfect blend of Digital and Analogue technologies. Fully professional synthesizer. 12 independent oscillators. 12 independently programmed envelopes. 64 program memories, separate modulation wheels and thousands of tonal capabilities that never need to be induced on stage.

MORE THAN TOUCH SENSITIVE

Touch sensitivity usually means control of Volume, but the Bit One gives you control of the attack and envelope of the pulse width modulation of the DCO's and the modulation rate of the LFO's – all by the way you touch the keys – note by note...but you'll really have to hear it to appreciate the difference this makes.

images (c) ebay.co.uk auctions 2023

However, regarding its aggressive advertising campaigns, it is doubtful whether CHASE has contributed much to the reputation of BIT synthesizers or not.

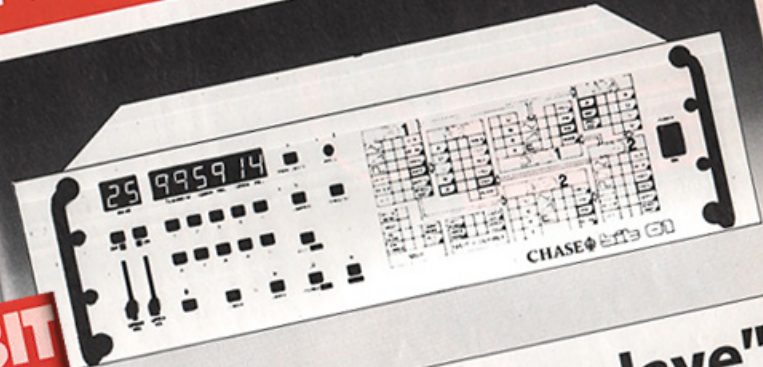
"In Britain, the instruments were distributed by a flash-in-the-pan outfit called

Chase Musicians, who delighted in preposterously hyped marketing and absurd price slashes ("Originally \$3 million, now only 50 bucks!" - that type of thing)."

(Julian Colbeck, [Keyfax Omnibus Edition](#), page 12)

images (c) www.muzines.co.uk

TECHNOLOGY — SPEAK FOR THEMSELVES



Chase BIT 99 THE INSTRUMENTS



'Let me be your master'

I am a 6 voice, programmable, touch sensitive synthesizer designed to be a powerful synthesizer and a MIDI Controller keyboard. If you choose me as your Master Keyboard, I promise to transmit and receive all MIDI information accurately. I promise to let you program a Split point anywhere you want, giving you two separate voices above the synth. I promise to let you transpose come with 75 solid Split anywhere you want. I promise to give you presets and a tape of 75 more. I promise to give you another 24 patches of Doubled or Split combinations. I promise to let you use my VCF and VCA differently for each voice. I promise to let you program my Modulation Wheel Amount for each voice. I promise to let you transmit or receive a Release Pedal, Pitch Bending, Program Change and all Modulation functions. I can even let you choose Omni On, Omni Off, or receive and transmit on any of the 16 MIDI Channels, and as a special feature, I can also transmit on two separate MIDI Channels simultaneously.

I promise to offer you some unique sounds, both digital and analogue. I promise to offer you a tight, slightly weighted keyboard feel. I promise to let you set up three sets of 30 voices each in any order you want, so you can step through them, that's called 'Chaining'. I promise to let you program me completely, including Noise for effects, variations and Detunings. I am called the CHASE BIT 99 Programmable Synthesizer. I can give you more features than most other keyboards can. I work well with MIDI keyboards, and especially well with expanders that receive touch sensitivity such as my "SLAVE" the CHASE BIT 01 Synthesizer Module. My younger brother was voted Professional Keyboard of 1985 - I am even better. I am a completely programmable MIDI Master Keyboard. I NEED TO FEEL YOUR TOUCH AND I WILL RESPOND.

**CHASE BIT 99
SYNTHESIZER
£699**

**BUY BY PHONE
RING 061-236 6794**
You can even reverse the charges.
Money back guarantee.

CHASE

"Let me be your slave"

voice, programmable, touch sensitive synthesizer, to be controlled by any keyboard with MIDI, a guitar with MIDI, a MIDI sequencer and most of the world's MIDI products. If you choose me as your slave, I promise to be compatible with the orders I receive. I promise to let you add a Split point to your keyboard, even if it has none, and let you transpose the right of the Split. I promise to come with 75 patches and a cassette of Split or Doubled sound variations. I promise to respond to your touch and control. I promise to let you program your touch to control width, my LFO's rates, my VCF and VCA differently for each voice. I promise to let you choose whether or not to receive Program Changes, Release Pedal Pitch Bending and Modulation functions. I promise to offer some unique sounds, sometimes digital, sometimes analogue, with a variety that will complement what you already own. I am called the CHASE BIT 01 Synthesizer Module. I can add more features to your keyboard than any other keyboard could add. I work well with all MIDI keyboards, but I respond best to those transmitting velocity like the DX7*, CHASE BIT 99, and many others. I can even let you choose OMNI ON, OMNI OFF, or receive on any of the 16 MIDI Channels. I want to be your slave, your ultimate Synthesizer Module.

WE NEED EACH OTHER

**CHASE BIT 01
SYNTH MODU
£499**

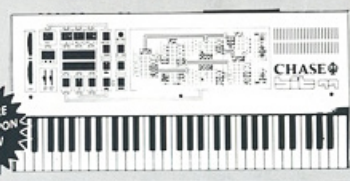
CHASE BIT TECHNOLOGY
At the forefront of sound

LONDON 01-387 7626/7449
22 Chiswick Street, Off London Road, London NW1
MANCHESTER 061-236 6794/5
58 Oldham Street, Off Piccadilly, Manchester M4 1LE
BIRMINGHAM 021-236 8146
10 Priory Queensway, Birmingham, B4 6HS
• Opening Hours Mon-Sat inc. 10.00am-5.30pm

LIFETIME GUARANTEE
PARTS & LABOUR
Pick up a leaflet giving full details
Chase Guarantee & Pay as you Please

CHASE JANUARY

**NEVER BEFORE HAS THERE BEEN
A SYNTH WITH THESE FACILITIES
AND SOUNDS - AT THIS PRICE**



SAVE
EVEN MORE
WITH COUPON
BELOW

THE NEW CHASE BIT 99 - £699

The Chase Bit One was voted "The Professional Keyboard of 1985" ... it has the sounds... it has the facilities... it has the user friendly features... it is so far ahead of the rest... it is a best seller... but now we've managed to make it even better... and even better value... and even further ahead of the rest... now we introduce the Chase Bit 99... a real winner.

More for your money
The Chase Bit 99 has the same easy digital access control combined with Chase analogue filtering that produce the unsurpassed sounds that we've become famous for, but now we've expanded the memory and made ALL parameters programmable including...

**Ac
No**
Voucher v
until 31st Ja
only.

SALE B

Source: www.muzines.co.uk

As if BIT, UNIQUE and CHASE weren't enough names for Crumar, a fourth company came into play in Italy: LEM. LEM took over Crumar in 1987, continuing production of BIT instruments until 1988. So this gave us the names **LEM BIT 99**, **LEM BIT 01** and **LEM BIT MMK** as well. Not to forget that masterkeyboard in the rare "weighted" version, developed by LEM themselves, named **LEM MMK weighted** (see this [Reverb auction](#) of July 2023). *

[* Whether LEM was already producing for Crumar before the takeover is not entirely clear. Our two LEM BIT 99, for example, have a Crumar nameplate. And the above mentioned *LEM MMK weighted* was already in production in 1986. So the cooperation might have been in full swing *before* 1987.]



LEM MMK weighted (c) Reverb.com



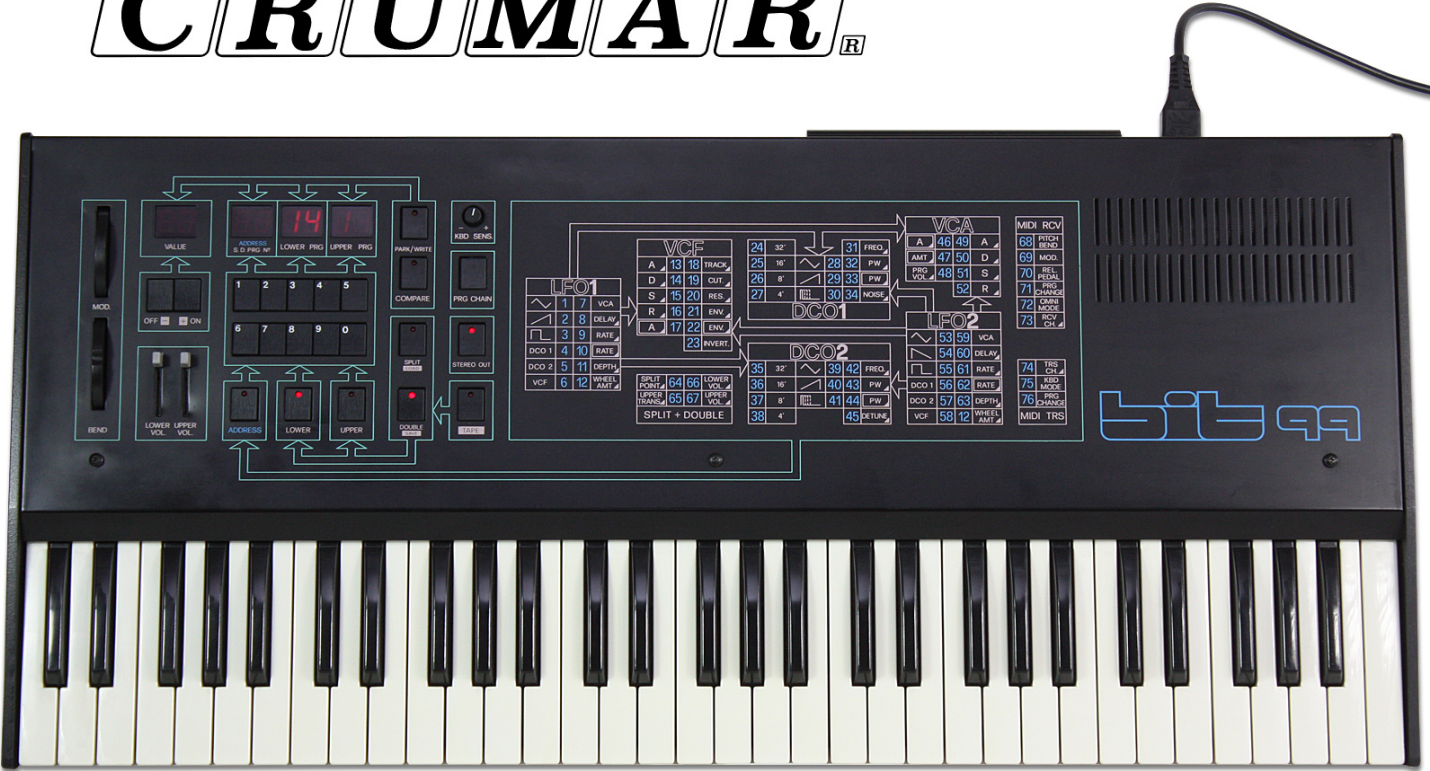
LEM MMK weighted (c) Reverb.com

GREATSYNTHESIZERS.com

Back to 1987/1988. While at that time BIT synthesizers with their outdated analog technology were still being built in Southern Europe, the Japanese digital bestsellers **Roland D-50 Linear Arithmetic Synthesizer** (1987) and the **Korg M1 AI Synthesizer/Workstation** (1988) were appearing on the market. Calling this *"The meeting of two worlds"* would be a massive understatement ... the difference in synthesizer technology between Europe and Japan could hardly have been greater!

Nevertheless – and this brings the short BIT history to a conclusion – Crumar BIT ONE, BIT 99 and BIT 01, of which several thousand were produced, were respectable synthesizers in their day. From the viewpoint of 1984, they were modern and solidly processed. They have resisted the ravages of time (to a large extent) up til now and cut a great figure – another understatement – as **quality analog poly-synthesizers with MIDI** in the studio setup of the year 2025!

CRUMAR[®]





 GREATSYNTHESIZERS.com

CRUMAR BIT 99 / BIT 01 - appearance and architecture

It seems strange that a company located in Italy – THE world-class nation in terms of industrial and fashion design – would produce synthesizers with an appearance more reminiscent of devices in industrial kitchens (or medical laboratories) than of musical instruments. The BIT 99, especially, is a real challenge to the eye. The unconditionally flat panel, the strange wheel arrangement, the boring color scheme (in the common “black” BIT version), the visually dull (as well as technically imprecise) switches, and those imprinted signal path graphics (making it seem more complicated than it is) – all this contributes to the instrument’s unattractive appearance.

On the other hand, that exaggerated-pimped, pseudo-technical appearance of the BIT instruments could bring tears of joy to the eyes of the admirers of the 80s! What a successful *bad style*, what a *masterstroke*! And if you turn away – fascinated and repelled at the same time – from the BIT 99 towards the BIT 01, it’s almost disappointing that the expander version appears more aesthetically balanced. In any case, the smaller (and more precise) push buttons of the BIT 01 are without a doubt a real blessing in practise. Here, one gratefully and gladly takes note of the change.

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity



GREATSYNTHESIZERS.com



GREATSYNTHESIZERS.com

Main feature of BIT 99 / BIT 01:

- 6 voices
- 2 DCOs per voice (waveforms: triangle, sawtooth and pulse wave, all waveforms can be activated)

simultaneously, noise is also available)

- **1 VCF per voice** (CEM 3328 filter)
- **ADSR envelope for the VCF**
- **ADSR envelope for the VCA** (or possibly “the” VCAs, since the sounds can be stereo)
- **2 global VC LFOs** (waveforms: triangle, sawtooth and square)
- 99 program memories (75 single sounds and 24 split/double combinations)
- Cassette interface, MIDI and velocity control

Dynamic control functions (Velocity / MIDI):

- **Pulse width** of both oscillators
- **VCF** (ADSR amount)
- **VCA** (Volume amount)
- **ATTACK-TIME** of both envelopes
- **LFO RATE** of both LFOs

CRUMAR[®]



AUDIO CONNECTION



 GREATSYNTHESIZERS.com

The BIT factor: Expressivity

We probably have to be more specific: The BIT factor – the very unique selling point of these instruments – was their **expressivity in combination with that typical sound generation**.

Controlling the BIT instruments – the BIT SOUND (!) – via velocity / MIDI allows for synthesizer soli and musical textures of unexpected uniqueness. Provided you take a few hours and adapt the already good (but by no means *spectacular*) presets to your own needs and playing style. Which is indeed a bit tedious, since usability and programming were the instrument's weakest points.

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity

CZ 3000

Vertrieb
Casio,
Hamburg

u. 32 frei
progr.
Sounds,
über Cartridge
erweiterbar

PD-
Synthese

16

2 x
AD655R
(VCA +
VCF)

1,

Joystick

Joystick

—

+

mini-mono-Mode, PD-
Synthese, Glide- u.
Portamento (poly-
phon), Ringmodula-
tion, 2 Sounds
gleichzeitig (Dual-
Mode).

—

Ausstattung wie
CZ-5000, jedoch ohne
Sequencer. Gute Inter-
grationsmöglichkeiten
im MIDI-Verbund durch
MIDI-Mono-Mode

103
x
341
x
125
(BxHxT)
11,7 kg

2399,—

Korg

DW-6000

Vertrieb
Musik Meyer,
Marburg

61 Tasten

6

64

Digital/Ana-
log
MS-Ver-
fahren

180K
VCA + VCF

2 x
AD655R
(VCA +
VCF)

1,

Joystick

Joystick

—

+

Acht digital abgespei-
cherte Wellenformen
(s. MS 685), Chorus

—

Vielseitigkeit im Sound
durch digitalanaloge
Klangerzeugung

100x34x19
(BxHxT)
9,3 kg

2490,—

Challenging
Technology

Bit 99

Vertrieb
Traffic,
München

61 Tasten,
dynamisch,
splitbar

6

99

Analog

180K
VCA + VCF

2 ADSR

2 Di/Ramp/
R

Wheel

Wheel

—

+

Stereo-Ausgang,
Dual-Mode, Omni- u.
Poly-Mode, Velocity
kann auf viele Param-
eter Einfluß nehmen.

Bit 01
(2000-)

Weiterentwicklung des
Bit One. Vervollständigt über
erweiterte MIDI-
Möglichkeiten

o.A.

2500,—

88 monochrom

BD = Bassdrum, SD = Snare Drum, PW = Pulse
Snare Drum, PW = Pulsweite

Juno 106

Vertrieb
Roland,
Norderstedt

61 Tasten,
gewichtet,
dynamisch. AI-

64 Presets
u. 32 frei
program-
mierbar.

Analog

2 ADSR

2 Di/Ramp/
R + H

Lever

Lever

—

—

+

Chorus, MIDI-Multi-
mode, viele Modula-
tionsmöglichkeiten,
über Cartridge weitere
64 ROM- u. RAM-

EM-22
(2250-)

Abgespeicherte Version
des EK 44

101x11x33
(BxHxT)
11,5 kg

2650,—

ELKA

EK-22

61 Tasten,
gewichtet,
dynamisch. AI-

64 Presets
u. 32 frei
program-
mierbar.

Analog

2 ADSR

2 Di/Ramp/
R + H

Lever

Lever

—

—

+

Chorus, MIDI-Multi-
mode, viele Modula-
tionsmöglichkeiten,
über Cartridge weitere
64 ROM- u. RAM-

EM-22
(2250-)

Abgespeicherte Version
des EK 44

101x11x33
(BxHxT)
11,5 kg

2650,—

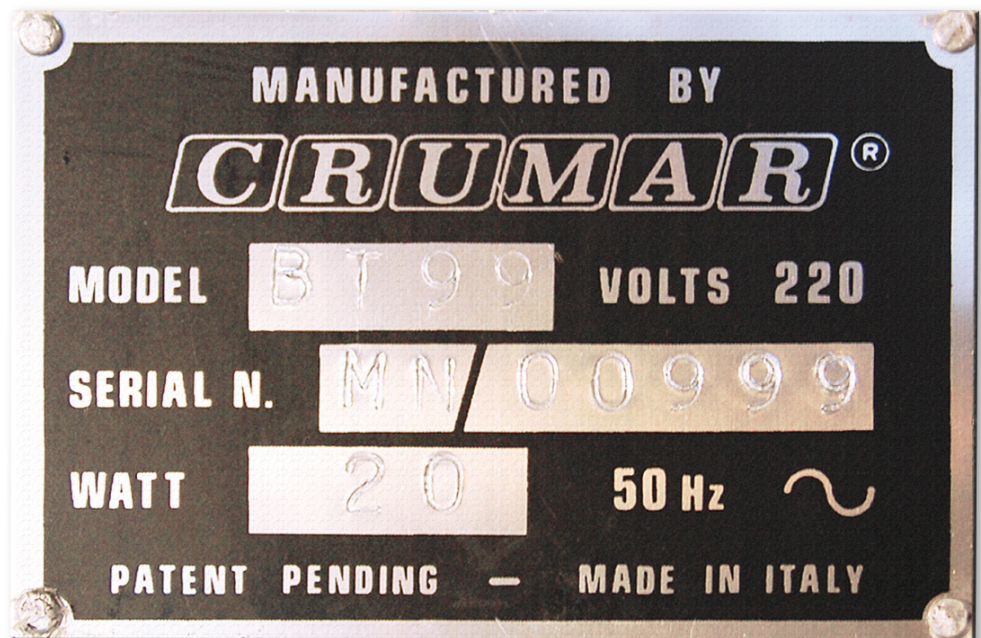
musik special 89

In Germany, the BIT 99 cost 2.500 DM (Deutschmark) in late 1986. It was at the same price level as the Korg DW-6000 and the Roland Juno-106.

GREATSYNTHESIZERS.COM

BIT 99 (white)

Ser. No.
999



GREATSYNTHESIZERS.COM

However, those few hours (or those few weekends) of programming will definitely be worth it. You can add beats and interesting modulations (2 LFOs) to the sound, adjust the transitions in the attack times (via velocity / MIDI), increase the filter resonance (and thus lend to the sounds a vaguely indefinable flavor), whatever ...

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity

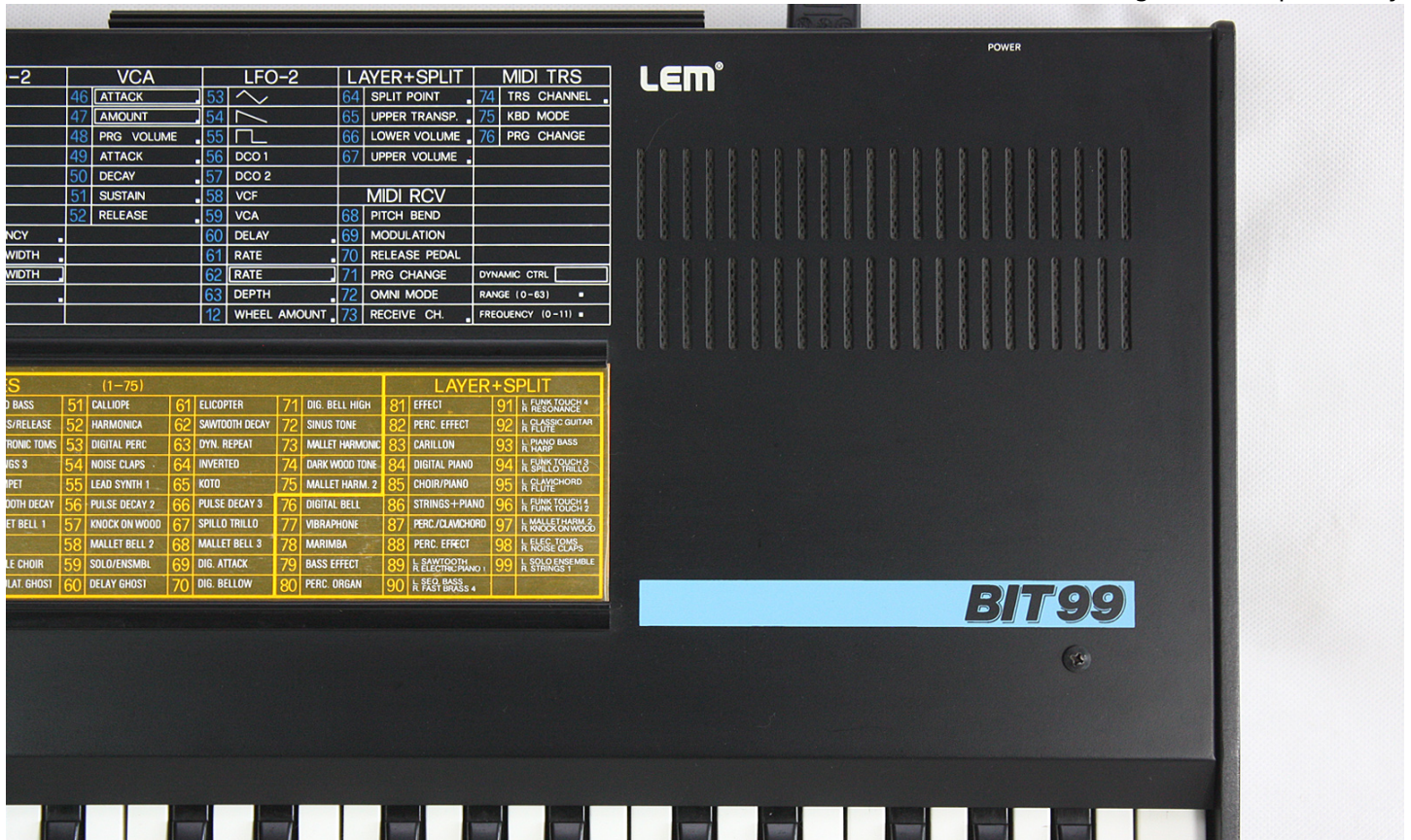
Once you've perfected the presets, you'll have those sounds at your disposal for years / decades. And you will use them with pleasure, because in their own BIT way they are timeless (!) analog sounds that will find their justification in numerous musical projects.



GREATSYNTHESIZERS.com



GREATSYNTHESIZERS.com



GREATSYNTHESIZERS.com

SOUND

BIT 99 / BIT 01 are known for their **bass sounds** and **electronic sequences**. In addition, you can create convincing analog **pads** with filter sweeps and brilliant **strings** with amazingly long attack times. **Drum sounds** (bass drum, electronic toms hi-hat) and **effect sounds of the simpler kind** (in the sense of or lively dual LFO modulations and FM-effects - LFO with 250Hz) are also an integral part of the BIT repertoire. Not to forget those **funky clavinet / e-piano / organ / brass presets** - snappy envelopes! - that are a pure joy to play ...

But probably most convincing are those excellent **lead sounds** with **nuanced velocity modulation** and **great dynamics**. Possibly only a BIT synthesizer can achieve such sounds (given: we haven't tried *all* keyboards on this planet ...). Within the BIT family, the BIT 99 with its light-weight, yet sensitive keyboard is our favorite. It allows you to create soli with enormous dynamic range. These soli have more the feel of a *natural* than of an electronic instrument - including harmonics, side noises and "dropouts". The BIT 99: A wind instrument. The BIT 99: A string instrument.

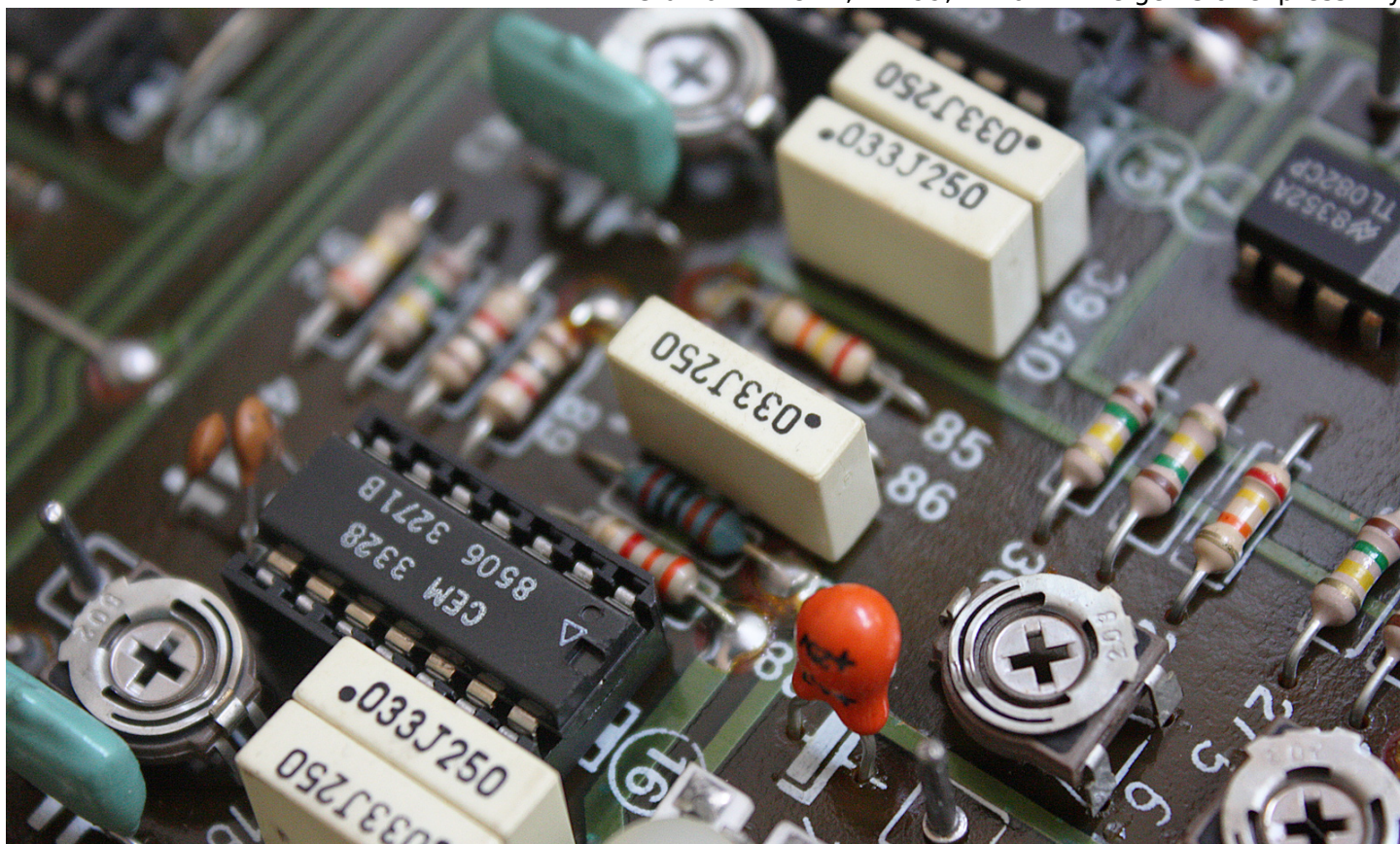


GREATSYNTHESIZERS.com

Sound sample [Xtra: BIT 99 - Free-Solo](#) demonstrates the dynamic and acoustic possibilities of a BIT 99 performed à la *natural* instrument. And check out the precise keyboard reaction of the BIT ONE on this [Youtube Video](#)!

SPLIT / LAYER and STEREO mode are other notable assets of the BIT architecture. In LAYER mode, polyphony is reduced to 3 voices – we just have to live with that – but nevertheless, since many sounds (basslines, leadlines etc.) are used monophonically, the powerful LAYER feature is a real benefit. Press STEREO and those LAYER sounds get even bigger! And when deactivating SPLIT / LAYER and thus returning to a single sound, STEREO sends the audio alternately right and left ... which is what you can hear in most of the attached soundfiles.

Let's move on to the filter. The CEM 3328 may have its committed supporters, but it certainly also has its committed opponents. At high filter resonance, the BIT sound gains a somewhat *tinny* timbre – especially at mid / high frequencies. Whether this anomaly is due to the filter chip or the odd oscillator architecture (*additive squarewave synthesis*) is beyond us.



CEM 3328 VCF (in a BIT 01 Expander)

GREATSYNTHESIZERS.com

Be it as it may: Those *tinny* timbres create a rather cheap impression and do not represent the *crème de la crème* of analog sound art. In this light, BIT 99 / BIT 01 filter movements will never reach the pure elegance of filter sweeps found on a Jupiter-8, Prophet-5, Oberheim OB-X/Xa/8 etc. But on the other hand, that *tinny timbre* can add a special color to certain BIT sounds that is perfectly suitable for lead lines and brassy, enhancing the instrument's unconventional and *natural* character.

Let's take a brief look at the oscillators. The two DCOs offer triangle, sawtooth and pulse. Some or all of the waveforms can be selected simultaneously, yielding mixed tone colors and thus extra sound variations in a small scale. Pulse Width Modulation is a bit of a surprise. While it can be controlled via keyboard / velocity / MIDI, which is great, PWM via LFO (there are two LFOs on board) is *not* possible. Then again, you can help yourself by performing the modulation *manually*. Select parameter PULSE WIDTH, press "+" or "-" and imitate slow LFO-to-PWM movements with your fingers. Since that's a bit cumbersome, you can also send adequate velocity data to the BIT, simulating LFO-to-PWM movements via MIDI.



GREATSYNTHESIZERS.com

Taken as a whole, the SOUND of BIT 99 / BIT 01 offers a remarkable spectrum – from *warm* and *broad* to *strong* and *assertive*, whereby the massiveness is partly due to the DCOs. These – perfectly tuned – deliver a powerful signal. The oscillator's digital control, on the other hand, is responsible for their directness – there are no beatings here! Thus, you're obliged to add liveliness – if required – and program beatings on your own. Again, for example, with the two LFOs ...

But then, the instrument's slightly clinical sound is not the point! The **symbiosis of powerful DCOs and expressive performance possibilities** (MIDI, velocity, stereo) puts sound potential at your disposal that makes the BIT synthesizers unique.

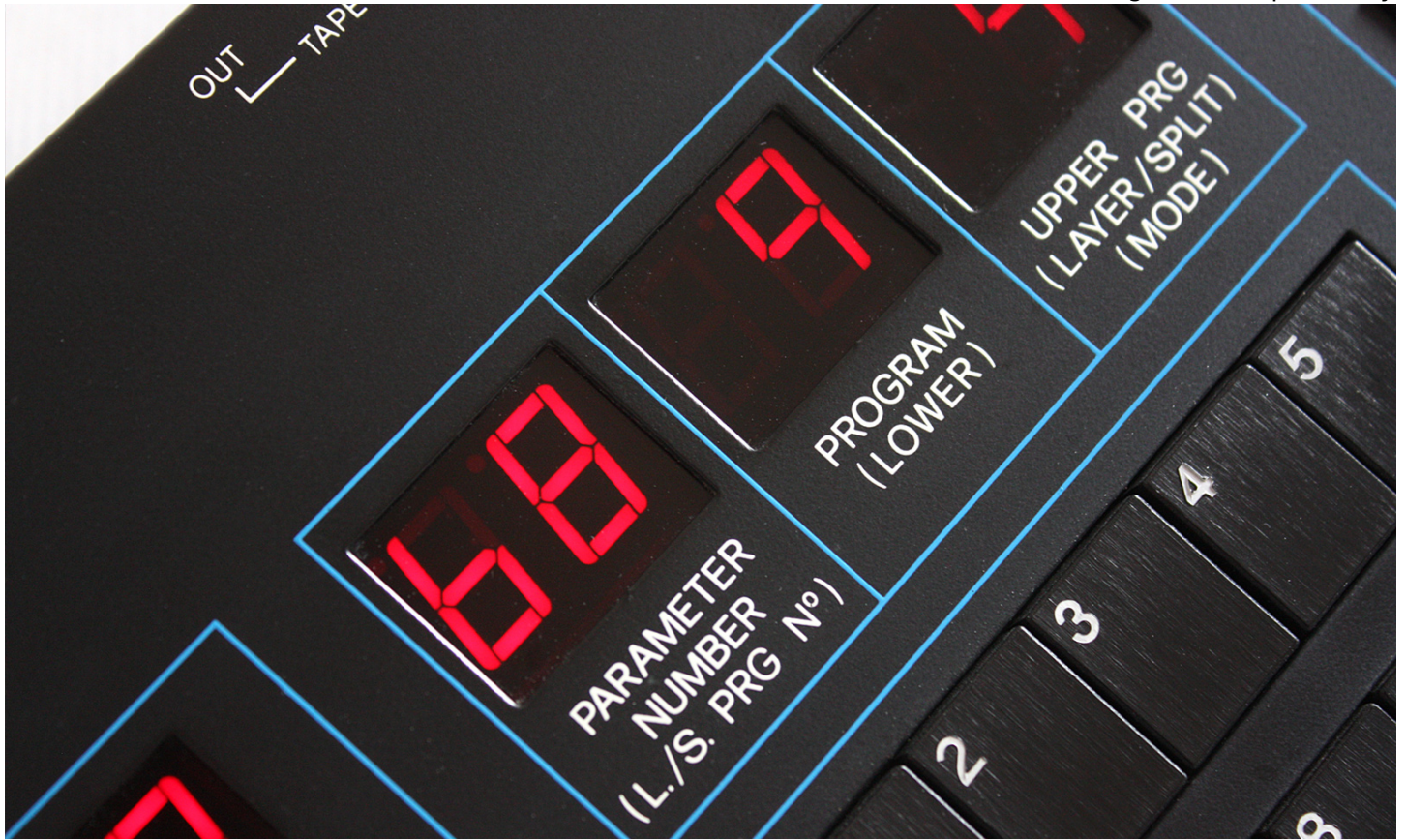


 GREATSYNTHESIZERS.COM

BIT 99 versus BIT 01

Why MIDI control of a BIT 01 does *not* deliver the same results as gigging the BIT 99 keyboard *live* is beyond us! We have tested many different set-ups and even purchased the BIT MMK master keyboard – 6 octaves (!) – to control the BIT 01 and the BIT 99, but found no way to recreate the agility of a *lively* played BIT 99. Does the hardly measable latency of MIDI make the difference?

It's *exactly* the BIT 99 (and, of course, the BIT ONE) that allows for those brilliant live sessions. At first glance, the light-weighted plastic keyboard seems a bit cheap, but in fact it forms a perfect symbiosis with the sound architecture. Thus, it's via the BIT 99 (BIT ONE) keyboard *only* that BIT synth soli achieve their maximum in dynamics and expressivity.



For this reason, the Crumar BIT 99 (and BIT ONE with enhanced MIDI) is the be-all and end-all to us. That's a very personal assessment, of course, based on *our* individual way of making electronic music (preferring keyboards over rack synths).

Musicians and studios around the globe, on the other hand, often give preference to the BIT 01. Thanks to its compact size (rack unit!) and better operability (smaller, yet more precise buttons), the BIT expander is the more sought-after instrument these days.

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity



Stereoping Controller, Tauntek Upgrade and (free) BIT Software Synth

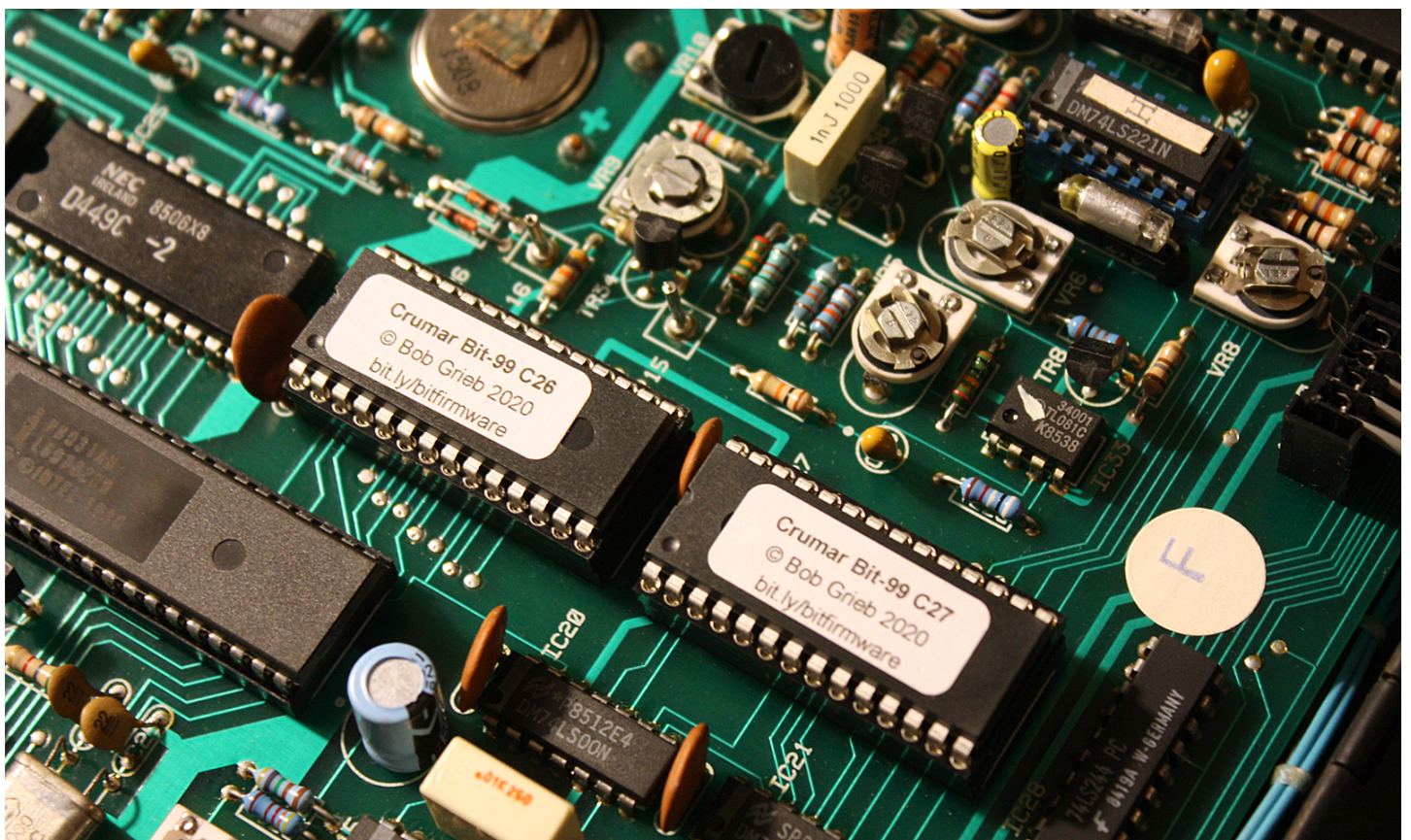
For better tweakable of BIT ONE / BIT 99 / BIT 01, there is now an external hardware available: The [Stereoping Synth Controller](#) CE-1. It allows free access *in real time* by means of 16 knobs.

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity



GREATSYNTHESIZERS.com

In order for this to work, your BIT synthesizer still needs to be equipped with the new BIT ONE / BIT 99 / BIT 01 [Tauntek Firmware](#). See Bob Grieb's website for more information ...



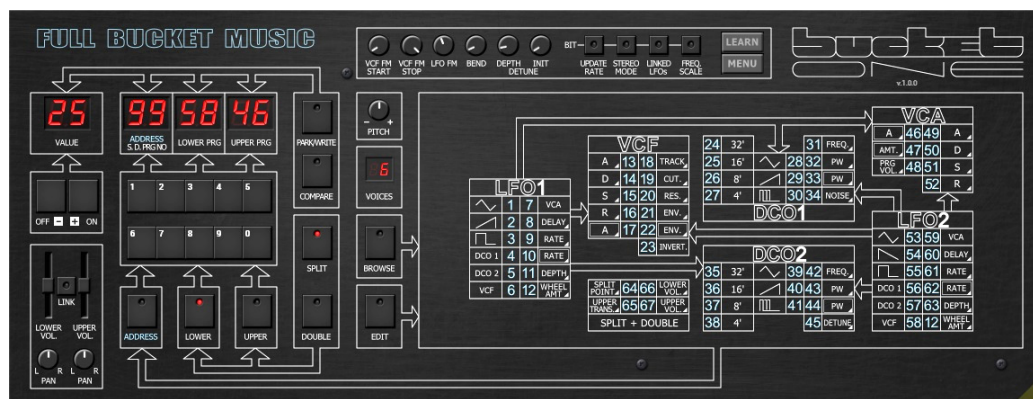
GREATSYNTHESIZERS.com

Then, there's the Bucket ONE, child of the never tiring [Full Bucket Music](#) platform (many thanks to Andy

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity for pointing this out). Bucket ONE is a free software synthesizer (Windows or MacOS):

The Bucket ONE is a software synthesizer plug-in for Microsoft Windows (VST2/VST3/CLAP) and Apple macOS (VST2/VST3/AU/CLAP) *simulating the classic Crumar BIT 01/99 synthesizers* from 1985. It is written in native C++ code for high performance even on “lighter” systems. Main features are:

- Close simulation of the original hardware
- Visual sound editor
- Up to 64 voices polyphony including Split and Double mode
- Two oscillators with three waveforms (triangle, sawtooth, pulse)
- Additional white noise generator
- Classic self-resonating four-pole lowpass filter
- Individual envelopes for VCF and VCA
- Two low frequency oscillators (LFOs)
- Supports [MTS-ESP by ODDSound](#) dynamic micro-tuning
- Resizable user interface (not “N” version!)
- MIDI Learn - all parameters can be controlled by MIDI CC
- Plug-in supports Windows and macOS (32 bit and 64 bit)



... a software synthesizer plug-in simulating the classic Crumar BIT 01/99 synthesizers.

Bucket ONE



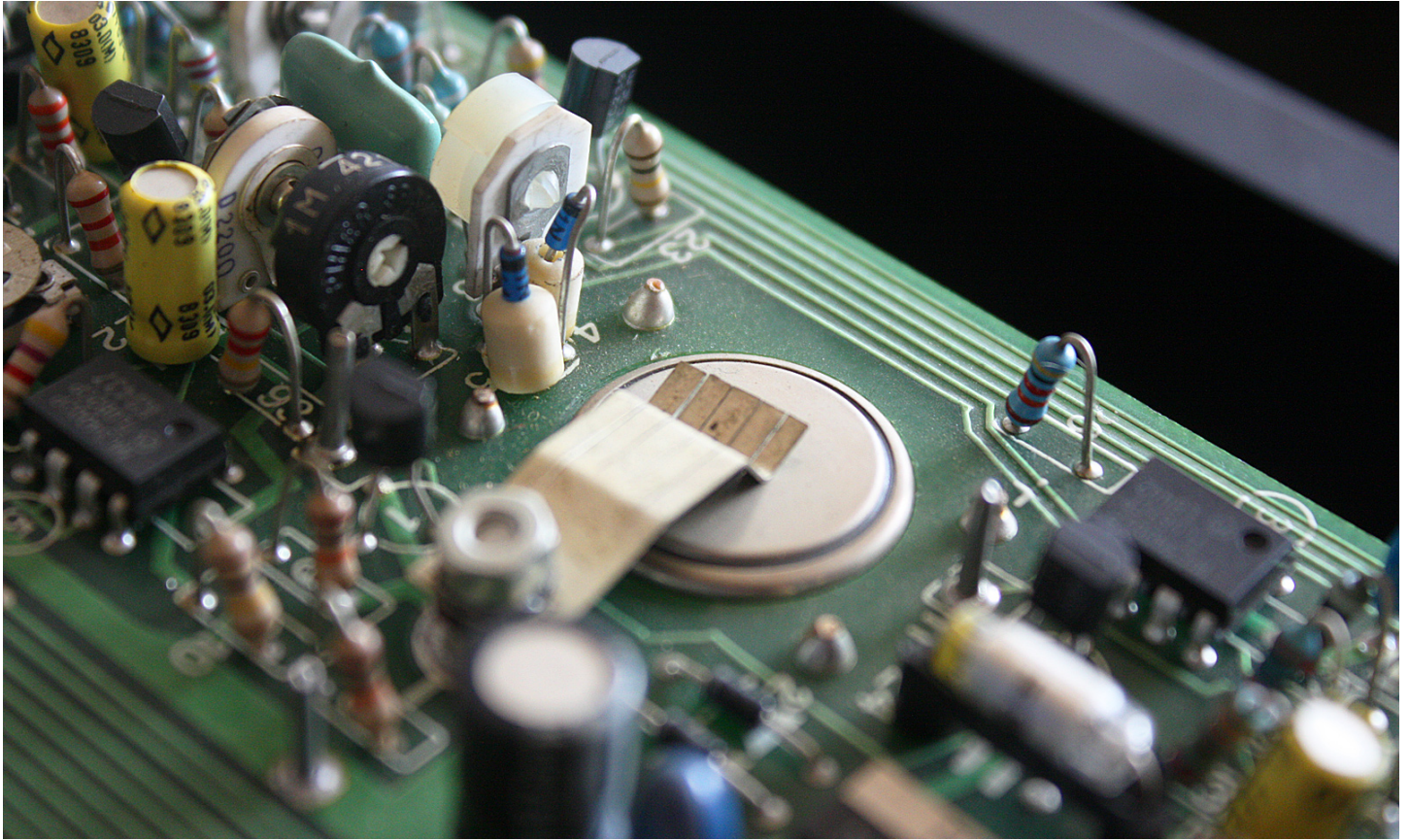
(c) www.fullbucket.de/music/bucketone.html

GREATSYNTHESIZERS.com

BIT reliability and service

In our experience, BIT 99 / BIT 01 are reliable and stable instruments. We have a BIT ONE (CEM filter version), six BIT 99 and two BIT 01 (one of which has always been kept for spare parts). All models that worked at the time of purchase are still up and running 10 or 20 years later.

Every now and then the CR2032 battery needs to be replaced (not a big deal). And rarely – very rarely – a BIT needs to be restarted because of bad tuning (which is a big exception). Beyond that, there are no major complaints to date ...



CR2032 Lithium Coin Cell Battery (in a BIT 01 Expander)

 GREATSYNTHESIZERS.com

But of course, several shortcomings still exist. The two VOLUME faders of BIT 99 / BIT 01 are of mediocre quality, they sometimes crack terribly (contact cleaning is required), causing audio dropouts every now and then.

Other weak areas: The BIT 99's large switches are clumsy and often lack an exact action point. Shipping or moving the instrument, its keys can easily break, as can the plastic side panels. And the rear jack sockets also tend to disintegrate unexpectedly, breaking in their axis (we experienced it three times).



 GREATSYNTHESIZERS.com

This may all sound dramatic, but in reality it's not. Service effort on the BIT 99 / BIT 01 is low. We conclude that the BIT 99 shouldn't be moved too much (best if it doesn't leave the studio at all). Its somewhat impractical shape of the chassis and its exposed keys / side panels do not allow any mistake when handling.

If transportation is unavoidable, a custom-fit BIT 99 hard case is what you need (a soft case would *not* be sufficient). That hard case is also indispensable for storage: Due to its strange shape, a BIT 99 placed on edge will tip over at the slightest vibration.

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity

Reverb

Gebrauchtes und neues Musik-Equipment kaufen ...

Verkaufe dein Equipment

Favoriten

Warenkorb

Registrieren

Anmelden

Gitarren

Pedale und Verstärker

Keyboards und Synths

Recording-Equipment

Drums

DJ- und Audio-Equipment

Alle ansehen

Marken

Neuigkeiten

Entdecken

Shops

Reverb Gives

Hilfezentrum



Keyboards und Synthesizer > Synthesizer > Crumar

ohm|stud|iohm ★★★★★
Lyon, Frankreich

Crumar BIT 01 / serviced and upgraded Tauntek firmware

Gebraucht - Sehr gut

1.250 € EUR
+ 35 € EUR Versand

Kürzlich gelistet

Jetzt kaufen

In den Warenkorb legen

Beobachten

Insertiert: vor 4 Tagen Aufrufe: 198 Beobachter: 32

Beschreibung

Crumar BIT 01 auction, September 2023 (c) Reverb.com

GREATSYNTHESIZERS.com

Reverb

Gebrauchtes und neues Musik-Equipment kaufen ...

Verkaufe dein Equipment

Favoriten

Warenkorb

Benachrichtigungen

Menü

Gitarren

Pedale und Verstärker

Keyboards und Synths

Recording-Equipment

Drums

DJ- und Audio-Equipment

Alle ansehen

Marken

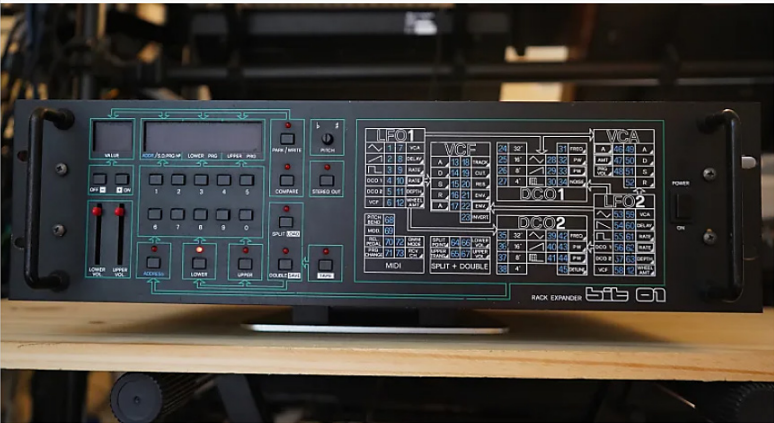
Neuigkeiten

Entdecken

Shops

Reverb Gives

Hilfezentrum



Keyboards und Synthesizer > Synthesizer > Crumar

Herr X's Shop ★★★★★
Avon, IN, Vereinigte Staaten von Amerika

Crumar bit 01, 80's Italian Analog Synthesizer

Gebraucht - Sehr gut

1.265,57 € EUR
+ Versand

Kürzlich gelistet

Jetzt kaufen

In den Warenkorb legen

Mache einen Preisvorschlag

Beobachten

Insertiert: vor einer Stunde Aufrufe: 18 Beobachter: 6 Angebote: 0

Beschreibung

Crumar BIT 01 auction, October 2023 (c) Reverb.com

GREATSYNTHESIZERS.com

Second-hand market

The best has been saved for last: Price! BIT synthesizers are still relatively cheap on the second hand market. Both the BIT 99 keyboard and the BIT 01 expander are traded in price regions between 600 and 134

Crumar BIT ONE, BIT 99, BIT 01: Little gems of expressivity 1,500 USD / Euros. That's *moderate* for a 6-voice analog synthesizer with MIDI, velocity-keyboard and split/layer/stereo modes. The BIT 01 – representing the more professional instrument in a MIDI studio – is much sought-after. Since it was built in smaller numbers, the BIT expander slowly mutates to a vintage rarity, with an expected increase in prices over the long term.

🔍Verkaufe dein Equipment

📌 Favoriten🛒 Warenkorb🔔 Benachrichtigungen👤 Menü

Gitarren Pedale und Verstärker Keyboards und Synths Recording-Equipment Drums DJ- und Audio-Equipment Alle ansehen Marken Neuigkeiten Entdecken Shops Reverb Gives Hilfezentrum



📌

Keyboards und Synthesizer > Synthesizer > Crumar

Jorge's Shop ★★★★★
Guadalajara, Mexiko

UNIQUE DBK - Crumar BIT 99 - 80s Analog Synth

Gebraucht - Gut

1.563,10 € EUR
+ Versand

🔔 Kürzlich gelistet

Jetzt kaufen

In den Warenkorb legen

📌 Beobachten

Inseriert: vor 20 Stunden Aufrufe: 33 Beobachter: 4

Crumar BIT 99 / UNIQUE DBK auction, September 2023 (c) Reverb.com

GREATSYNTHESIZERS.com

🔍Verkaufe dein Equipment

📌 Favoriten🛒 Warenkorb🔔 Benachrichtigungen👤 Menü

Gitarren Pedale und Verstärker Keyboards und Synths Recording-Equipment Drums DJ- und Audio-Equipment Alle ansehen Marken Neuigkeiten Entdecken Shops Reverb Gives Hilfezentrum



📌

Keyboards und Synthesizer > Synthesizer > Crumar

Jacques Stomboxes ★★★★★
marseille, Frankreich

Crumar Bit 99 1985 - Noir

Gebraucht - Hervorragend

1.490 € EUR
Nur zur Abholung

Jetzt kaufen

In den Warenkorb legen

Mache einen Preisvorschlag

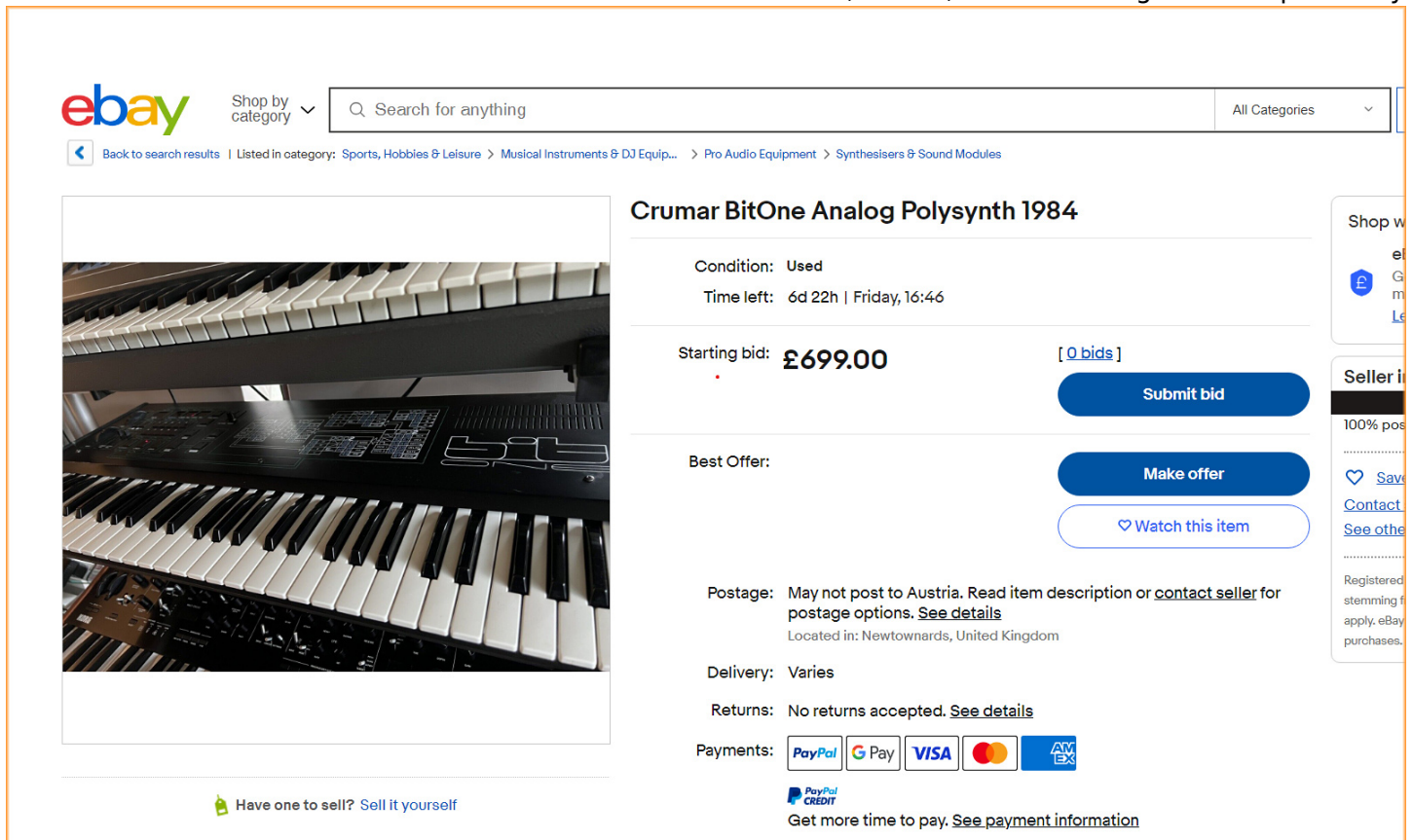
📌 Beobachten

Inseriert: vor 6 Monaten Aufrufe: 126 Beobachter: 8 Angebote: 4

📍 In der Nähe abholen
Verfügbar für lokale Abholung in marseille, Frankreich

Crumar BIT 99 auction, September 2023 (c) Reverb.com

GREATSYNTHESIZERS.com



ebay Shop by category All Categories

Back to search results | Listed in category: Sports, Hobbies & Leisure > Musical Instruments & DJ Equip... > Pro Audio Equipment > Synthesizers & Sound Modules

Crumar BitOne Analog Polysynth 1984

Condition: Used
Time left: 6d 22h | Friday, 16:46

Starting bid: **£699.00** [0 bids]

[Submit bid](#)

Best Offer: [Make offer](#)

[Watch this item](#)

Postage: May not post to Austria. Read item description or [contact seller](#) for postage options. [See details](#)
Located in: Newtownards, United Kingdom

Delivery: Varies

Returns: No returns accepted. [See details](#)

Payments:     

[PayPal CREDIT](#)
Get more time to pay. [See payment information](#)

[Have one to sell? Sell it yourself](#)

Shop with...
100% pos...
[Save](#)
[Contact](#)
[See other](#)
Registered...
stemming f...
apply. eBay...
purchases.

GREATSYNTHESIZERS.com

Crumar BIT ONE auction, October 2023 (c) ebay.co.uk

The currently *friendly* prices of BIT synthesizers should be seen in a larger context. What does a Roland Jupiter-8 cost today? (It costs twenty times as much as a BIT 99 ... *But does it sound twenty times as good ...?*) What does an Oberheim OB-X cost? Astronomical sums are demanded for certain vintage synths just because they are *legends*. A BIT 99 / BIT 01 – that *marginal note* in music history – is a friendly response to this madness. The inconspicuous Italo-synthesizer is not only cheap, it also stands up to the famous bolides in terms of sound – in its very *own* way.

Reverb

Gebrauchtes und neues Musik-Equipment kaufen...

Verkaufe dein Equipment

Favoriten

Warenkorb

Registrieren

Gitarren

Pedale und Verstärker

Keyboards und Synths

Recording-Equipment

Drums

DJ- und Audio-Equipment

Mehr Kategorien

Marken

Neuigkeiten

Entdecken

Shops

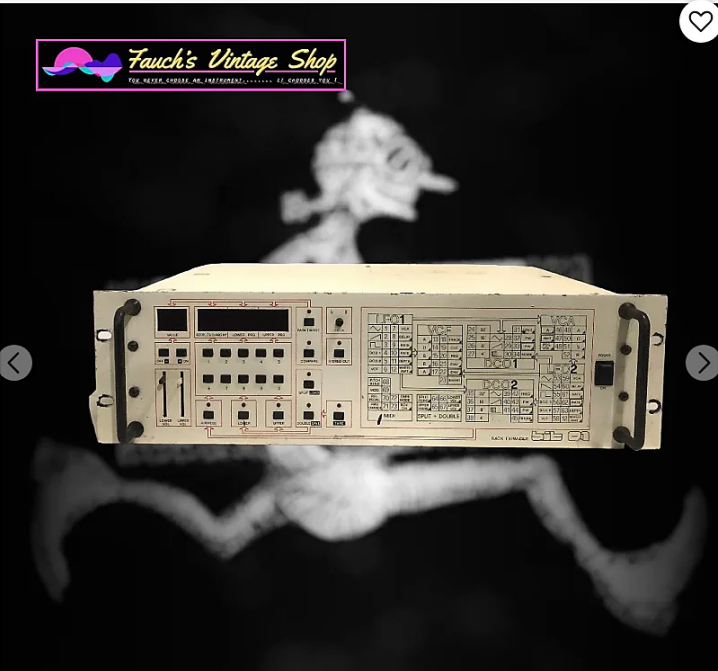
Reverb Gives

H

Keyboards und Synthesizer

Synthesizer

Crumar



Fauch's Vintage Shop
THE NEW, GOOD, AN. INSTRUMENTS..... AT CHERRY, TEL. 1.

Crumar Bit 01 PRO
SERVICED/WARRANTY !

Gebraucht - Sehr gut

PREISSTURZ
1.000 € Originalpreis
20% Rabatt
800 €
+ 200 € Versand

Jetzt kaufen

In den Warenkorb legen

Mache einen Preisvorschlag

Beobachten

Inseriert: vor einem Jahr Aufrufe: 914 Beobachter: 63 Angebote: 3

 **Fauch's Vintage Shop** ★★★★★
Nantes, Frankreich

Crumar BIT 01 auction, October 2024 (c) Reverb.com

GREATSYNTHESIZERS.com

Reverb

Gebrauchtes und neues Musik-Equipment kaufen...

Verkaufe dein Equipment

Favoriten

Warenkorb

Registrieren

Gitarren

Pedale und Verstärker

Keyboards und Synths

Recording-Equipment

Drums

DJ- und Audio-Equipment

Mehr Kategorien

Marken

Neuigkeiten

Entdecken

Shops

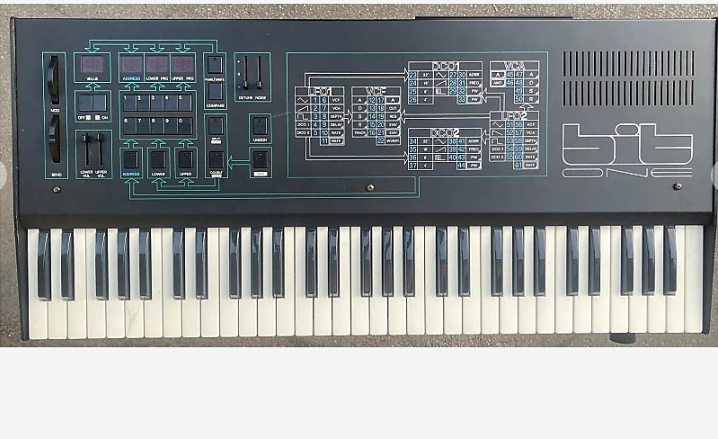
Reverb Gives

H

Keyboards und Synthesizer

Synthesizer

Crumar



BIT

Crumar Bit One Analog
Polyphonic Synthesizer tastiera
sintetizzatore

Gebraucht - Sehr gut

PREISSTURZ
2.000 € Originalpreis
25% Rabatt
1.500 €
+ 50 € Versand

Jetzt kaufen

In den Warenkorb legen

Mache einen Preisvorschlag

Beobachten

Inseriert: vor einem Jahr Aufrufe: 584 Beobachter: 23 Angebote: 0

 **STRUMENTI MUSICALI CECCARONI** ★★★★★
CESENA, Italien

 **In der Nähe abholen**
Verfügbar für lokale Abholung in CESENA, Italien

Beschreibung

Crumar BIT ONE auction, October 2024 (c) Reverb.com

GREATSYNTHESIZERS.com

Favoriten
Warenkorb
Benachrichtigungen
Menü

[Keyboards und Synthesizer](#) > [Synthesizer](#) > [Crumar](#)

VERKAUFT | [Ähnliches Equipment ansehen](#) →

Crumar Bit 99 /w Tauntek Firmware

Gebraucht – Hervorragend

€995
+ €75 Versand

Dieses Equipment wurde verkauft
Sieh dir ähnliches Equipment von anderen Verkäufern auf Reverb an

[Ähnliches Equipment ansehen](#) →

[Beobachten](#)

Beobachte dieses Equipment und wir werden dich benachrichtigen, wenn es wieder verfügbar ist.

Inseriert: vor 4 Monaten Aufrufe: 386 Beobachter: 24

David's Christoffers Synths and Parts and Stuff ★★★★★
Oslo, Norwegen

Crumar BIT 99 auction, November 2024 (c) Reverb.com

GREATSYNTHESIZERS.com

Bottom line

Crumar BIT 99 and **BIT 01** (and, of course, **BIT ONE** with upgraded MIDI specs) are **excellent analog synthesizers** that stand up to comparison with many great classics in synth history. Obviously, the BITs have their architectural shortcomings: Osc-Sync and Ring-Mod are just as much in vain as Sample & Hold and sophisticated modulation options. Not to mention the uninspiring BIT access! These instruments were not designed for live tweaking, their poorly equipped control panel requires a lot of patience in the process of sound optimization.



And yet: Elaborately programmed BIT patches guarantee expressive lead lines, bass lines and synth sequences that are – surprise, surprise – unparalleled in synth history. Whether the BITs are gigged *live* or via MIDI: Their musical results can be stunning! In addition, their technical reliability is in the acceptable range, their service effort low. We therefore advise to make a quick grab as long as the second-hand prices of BIT 99 / BIT 01 (and BIT ONE) are a bargain.



GREATSYNTHESIZERS.com

In a nutshell: These gems of expressivity not only have their own sound character and musical expression, they also belong to those vintage poly synthesizers that are still affordable in 2025.

Well worth a recommendation.

50+ minutes of audio files are attached. As a supplement to the sound samples, we linked three BIT 99 Youtube videos. They all illustrate the great sound of the instrument. The fourth video is a short demo of the HKA Design BIT ONE MIDI and arpeggiator upgrade ...

1. [DEMO 1 \(with Korg Monotribe\)](#)
2. [DEMO 2 \(with COTK 55\)](#)
3. [Bit99-LFO-Modulation](#)
4. [Bass Sequence](#)
5. [Arpeggio](#)
6. [Short Tracks](#)
7. [Snappy ENV](#)
8. [Stereo Mode](#)
9. [Warm Strings](#)
10. [Pulse Sequence 1 \(PWM\)](#)
11. [MIX 1 \(BIT: Electr Toms, SAW Sequ\)](#)
12. [MIX 2 \(BIT: Noise Pattern with Filter Mod\)](#)
13. [MIX 3 \(BIT: Stereo PULSE Line, Soft LFO Mod, Solo Lead Line\)](#)
14. [MIX 4 \(BIT: Main Sequence, Noise Pattern, Electr Heartbeat\)](#)
15. [MIX 5 \(BIT: Solo Voice\)](#)
16. [MIX 6 \(BIT: Solo Voice\)](#)
17. [Choir](#)
18. [Collage](#)

19. [Soft Solo](#)
20. [Psycho Strings](#)
21. [Pulse Sequence 2](#)
22. [Soft and Hard \(BIT 99 and PS-3100\)](#)
23. [GRP A8 - MacBeth M5 - JD800](#)
24. [Xtra: BIT 99 - Free-Solo](#)
25. [Xtra: Presets 1](#)
26. [Xtra: Presets 2](#)
27. [DBK and Roland SH101](#)
28. [Xtra: BIT ONE arpeggiator \(hka design\)](#)
29. [Xtra: BIT ONE arpeggiator \(hka design\) SPLIT mode](#)

Crumar BIT ONE / BIT 99 / BIT 01

**Polyphonic analog synthesizers
(1984 - 1988)**

**6 Voices (12 DCOs) with CEM3328 Filters, 2 ADSR, 2 global VC LFOs,
SPLIT/DOUBLE Sounds, Stereo Outs, Velocity and MIDI**

Dimensions / Weight:

Crumar BIT ONE / BIT 99 Keyboard:

86 x 40 x 8 cm; 13,2 kg

Crumar BIT 01 Expander:

19 inch rack, 3 HU; 7,9 kg

Open / Download:

[Crumar BIT 99 / LEM Photo 1](#) (4000 x 2600 px)

[Crumar BIT 99 / LEM Photo 2](#) (4000 x 2600 px)

[Crumar BIT 99 / White and Black](#) (4000 x 2600 px)

[Crumar BIT 01 / UNIQUE DBE](#) (4000 x 2600 px)

[Crumar BIT 99 Manual \(Englisch\) PDF](#)

Links:

[Stereoping Synth Controller CE-1](#)

[BIT 99 article from 1985 \(www.muzines.co.uk\) \(1\)](#)

[BIT 99 article from 1985 \(www.muzines.co.uk\) \(2\)](#)

[HKA Design - Crumar BIT ONE MIDI + arpeggiator upgrade](#)

[Tauntek - New Firmware \(MIDI CC Control\) for BIT ONE / 99 / 01](#)

Youtube Videos:

BIT 99 demo by [The Himer](#)

BIT 99 demo by [deepsonic.ch](#)

BIT 99 Demo by [Cartong Music](#)

BIT ONE Demo by [Harry Axten](#) / HKA Design (MIDI Upgrade / arpeggiator demo)