



# JZ Microphones BT202

## Small-diaphragm Capacitor Microphones

JZ's first small-diaphragm mics combine a distinctive appearance with excellent technical specs and an appealing sound.

NEIL ROGERS

JZ Microphones have been building an excellent reputation for their distinctive-looking mics for well over a decade now. Manufacturing in Latvia, they aim to offer high-end sound at a more manageable price than most established European marques. The most well-known JZ models can be found in their Vintage series, which includes a selection of large-diaphragm capacitor mics that promise a classic valve-like sound from solid-state electronics, and which employ their unique Golden Drop capsule design. I had the pleasure of

reviewing the Vintage 12 from this series last year, and had plenty of good things to say about how it fared in my studio: [www.soundonsound.com/reviews/jz-microphones-vintage-12](http://www.soundonsound.com/reviews/jz-microphones-vintage-12).

The subject of this review is JZ's first small-diaphragm capacitor mic, the BT202. Sold exclusively as a stereo pair, it's intended as a high-quality option for all-round instrument recording.

### Pencil Power

The BT202 is a smart and compact-looking mic and, like all JZ designs, has a characterful appearance that doesn't immediately conjure up

associations with a specific design of yesteryear. The technical specifications are impressive, with dynamic range quoted as 128dB and maximum SPL at 140dB, meaning the (A-weighted) self-noise figure is only 12dBA — about as good as it gets for a small-diaphragm mic. The published frequency response is flat from 30Hz up to 6kHz, before a slight bump peaks around 8-9 kHz. The BT202s have a fixed cardioid polar pattern, and the same Golden Drop technique JZ use in manufacturing their large-diaphragm capsules is employed for the 13mm capsule found in this model. JZ say this makes the diaphragm lighter

and more responsive to transients. The electronics in the BT202 are all Class-A, with a transformerless circuit that is intended to offer an uncoloured, faithful representation of the source.

JZ are one of a number of mic manufacturers who offer the option of purchasing a proper wooden case for their microphones at an additional cost; as standard, the BT202s come in a cardboard box. I totally get the reasons behind this, but I think the price point here is very close to the level where a proper case should be expected as standard. That minor grumble aside, the BT202 is a stylish and 'funky'-looking mic that nevertheless manages to maintain the air of a serious, businesslike studio tool. I also liked that the slightly textured, matte finish makes these lightweight mics more tactile and less likely to be dropped by chunky-fingered engineers.

### Riding High

The first port of call for the BT202s in my studio was as a pair of drum overheads. I was curious to see how they performed in this role, as my live room seems to naturally present cymbals quite brightly, meaning I often favour large-diaphragm capacitor or ribbon mics above a kit. I was impressed with how they sounded: the resulting capture of the cymbals was indeed bright, but it felt very honest and was very easy to rebalance if necessary when mixing. I used the mics on a few different drum recordings over the review period, and appreciated how they delivered a nice sense of 'left to right' when positioned above the kit, broadly focused on the hi-hat and ride cymbals at either side. I also liked the fact that the overhead sound they gave me was on the leaner side and thus sat more naturally with the close kick and snare mics, which provided the required body and weight when needed.

I record a variety of acoustic instruments at my studio, and acoustic guitar in particular is an instrument

where I would naturally gravitate towards small-diaphragm capacitor mics. The BT202s didn't disappoint, and I was struck again by how honestly the mics captured what was in front of them. These are not mics that will flatter a poor-sounding guitar — or player! — but with careful placement they produced detailed, nicely balanced acoustic guitar recordings. I could often hear the subtle lift in the frequency response toward the very top of the midrange, but it nearly always felt like it was working in my favour, gently pushing forward the articulation of the pick or fingers hitting the strings. One other thing I noticed when recording acoustic guitars is that the BT202s have quite a strong proximity effect. A degree of bass tip-up is, of course, inevitable with any cardioid mic, but I seemed to be a touch more aware of it with the BT202s than with other similar mics in my collection.

The BT202s were already proving to be highly capable all-round mics in my studio, then, but when I tried them on my upright piano, I was suddenly in the 'highly impressed' category. I like to remove the front panel of my Knauss upright when recording, and I positioned the mics so that they were pointing toward the

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strings at a distance of around 30cm, at either end of the range where the musician would be playing. Sitting in from of my monitor speakers to listen, I had a wonderful sense of the piano moving between my left and right speakers, which quite simply brought a smile to my face. It wasn't just the stereo imaging that was pleasing, though: it was also the transient response and how nicely the top end of what is quite a dark-sounding piano was gently enhanced. This was quite possibly the best I have heard my studio's piano sound in the seven or eight years it has been there.

It didn't stop there, either. I also used the mic for recording a violin, positioned about a metre above the player's shoulder, and it again produced

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€826 per pair

### PROS

- Versatile, smooth-sounding mics with just a hint of high-frequency emphasis.
- More affordable than most European-made alternatives.

### CONS

- A proper box is a cost option.

### SUMMARY

The BT202s are high-class yet reasonably priced pencil mics that will give good results on almost any source.

a detailed, balanced capture of what can be a very unforgiving instrument to record. One final, surprising role in which I liked the BT202 was as a vocal mic for a female folk singer who I record quite often; I loved how the subtle 8-9 kHz bump brought a little sparkle to her vocal. I also liked how the leaner low end felt ready to go straight into the mix, and I'm now wondering why we don't use mics of this type more often in vocal sessions!

### To Sum Up

Many engineers complain that modern small-diaphragm capacitor mics can sound a bit bright and unflattering — which, perhaps, partly explains the ridiculous prices of certain vintage models. The BT202s come across as slightly darker and softer than many mics I've heard in this family, which suited my ears and requirements very well. I have other mics that give me a bit more 'zing' or 'air', but they often end up sitting

around not getting used for long periods, as they only work in certain settings. As all-round studio mics for drums, guitars and any general instrument recording, the BT202s just got on with the job of being quiet, accurate microphones that you can work with to get clean recordings, or pair with a more colourful preamps for a bit more of a vibe. And if you're looking for a dedicated pair of piano mics, the BT202s should definitely be on your shortlist. With the caveat that I only tried them on my own upright piano, they worked superbly! **////**

### Listen Online

To hear the BT202s in action on some of the sources described in this review, surf to <https://sosm.ag/jz-bt202-media>.

£ €825.62 per pair including VAT.  
T JZ Microphones +37 1294 70301  
E info@jzmic.com  
W www.jzmic.com