Sontronics STC-1

All-purpose microphones are just as limiting as the cost of three dedicated mics, but Sontronics' STC-1 aims to cover all the bases. Huw Price puts it through its paces.

KEY FEATURES
- **Response: 25Hz–20kHz**
- **Sensitivity: 12mV/Pa -38dB ±2dB (0dB=1V/Pa 1,000Hz)**
- **Polar pattern: cardioid**
- **Impedance: <=200Ω**
- **Equivalent noise level: 16dB (A-weighted)**
- **Max SPL for 0.5% THD@1,000Hz: 137dB**
- **Power source: phantom power 48V**
- **Connector: 3-pin XLR**

STC-1
Manufacturer **Sontronics**
Price **£99 (with cardioid capsule); additional capsules £39 each**
Contact **Sonic8 08701 657456**
Web **www.sontronics.com**

Big-capsule condenser microphones undoubtedly add character and warmth to a recording, but they also flatter to deceive. This is why so many recording engineers reach for small-capsule condensers for critical recording tasks. So, if you are primarily interested in recording vocals, for example, a small-capsule condenser might not be your first microphone of choice. However, if you also want to record drum overheads, acoustic guitars and piano and you find the sound of large-capsule condensers too coloured, microphones such as Sontronics' STC-1 could be the answer.

Since small-capsule condensers are more specialised, there is less choice at the semi-pro end of the market. In addition, most are fixed cardioid, so this makes the STC-1 even more interesting. Like the Oktava MC-012 and the SE Electronics SE-2A, it is supplied with three capsules. Regular cardioid comes as standard, but you can also buy hypercardioid and omni-directional capsules for just £39 each. The cardioid capsule is unmarked, but the omni and hypercardioid capsules bear a representation of the pickup pattern on their outer casing.

The capsules simply screw onto the end of the heavy tubular chassis to provide extra end-fire options. It's a fine-looking product too, with the Sontronics logo engraved into the matte silver casing. Rather than opting for an in-line attenuation pad like the AKG C451 or the Oktava MC-012, the pad forms part of the preamp section and there are three settings: 0dB, -10dB and -20dB. There's a switchable bass rolloff, too, also with three settings: Lin, 75Hz and 150Hz. The switches themselves are recessed into the chassis to avoid accidental switching. Fortunately, you can move them with your fingernail, so you don't need to poke around with a pencil or screwdriver. The switch settings are engraved into the body, too, so they are easy to read and won't wear off.

Inside the chassis, Sontronics claims to use high-quality components in a transformerless, Class-A preamp design. It all comes in a hardwood carry case of obvious quality, with a plush, lined interior and a mic clip.

Tubular bells and whistles

The STC-1's preamp is obviously doing a fine job because this microphone kicks out a very healthy signal level with no discernable noise floor. What's more, the level remains fairly consistent regardless of which capsule is selected, although the omni-directional capsule we tested was the loudest by a very small margin.

The high end of the cardioid capsule has a very pleasing sizzle, but doesn't sound too bright. This provides the STC-1 with a shimmery and intimate presence, while the overall character is open and transparent. There aren't any obvious frequency bumps or troughs (besides the presence lift) and there is far less proximity effect than you would expect from an identically positioned large-capsule microphone.

Hypercardioid settings invariably demand a degree of compromise and the STC-1's hypercardioid capsule is no exception. Compared to the cardioid setting, the tone is fairly pinched and unnatural. It also became quickly apparent that sibilance could become an issue if the capsule was used for vocals. This is largely due to a peak at around the 2kHz mark, but it can be EQ'ed out and the extra proximity effect does produce a fatter sound.

The omni-directional capsule is a return to form – in fact, it could be the best of the lot. On acoustic guitar the sound acquires a greater sense of scale, with more profound bass content and a generally smoother response. The high-end detail remains, but it's less forthright and somehow a little sweeter.

If you plan to use the STC-1 on loud sound sources such as electric guitar or drums, you'll certainly need to engage the attenuation pad. The onboard preamp is powerful enough to overload the front end of any microphone preamp, which is actually an advantage when you are recording quieter sources. On electric guitar the natural presence of the STC-1 worked a treat, capturing subtle nuances along with a very true and accurate representation of the guitar and amp combination we were using. Although we had the capsule jammed right up against the speaker cloth, we experienced no overload and the bottom end remained perfectly in proportion.

Sense of direction

Just like virtually every other omni-directional recording microphone, the pattern characteristic isn't perfect and the STC-1 does become far more directional at high frequencies. Most engineers accept this as a fact of life and simply use it to their advantage – attenuating the high end by 'aiming' the capsule away from the source. The directional highs will also help with imaging if you use a pair of omnis in coincident stereo – an excellent technique for drum overheads and string quartets.

In a direct cardioid comparison, the Røde NT6 sounds slightly subdued, but a little softer and smoother. The Oktava MC-012 and the STC-1 sound fairly similar, but the MC-012 has a more flattering midrange tone (although its transient response seems slower, so it's not as detailed or lively). What's more, the MC-012 sounds a little veiled. Curiously, most of these characteristics were reversed when we compared the omni-directional caps of the STC-1 and the MC-012 – the STC-1 was a clear winner.

Up against the SE-2A and its various capsules we experienced similar results. The STC-1 could be the best choice if you need an instrument to cut through a mix with plenty of high-frequency detail, but the SE-2A (and, indeed, the SE-3), captures more of an instrument's natural resonance, with a slightly weightier low end. MTM

THE SONTRONICS STC-1 IS A DECENT-SOUNDING AND WELL-SPECIFIED SMALL-CAPSULE CONDENSER.

Measuring Up

This is basically the same package as the Oktava MC-012 (£199, including three capsules) and the SE Electronics SE-2A (£149, including three capsules). The STC-1 can be bought with one capsule for a mere £99 and you can add capsules to your collection as funds allow (£39 each). Sonically, the STC-1 is a match for the MC-012 and it's quite a bit cheaper, but the Oktava's hypercardioid capsule wins out. The STC-1 and the SE-2A are similar beasts, but the SE-2A has a shockmount rather than a clip, while the STC-1 has attenuation pads and a three-way bass rolloff.

SUMMARY

WHY BUY
- Fine build quality
- Very versatile
- High-pass filter
- Attenuation pad

WALK ON BY
- Hypercardioid capsule too coloured
- No shockmount

VERDICT

The STC-1 is a decent-sounding and well-specified small-capsule condenser with interchangeable capsules and a particularly impressive omni-directional response.

★★★★★★★★★☆☆

METHOD SPOT

If you have never considered using anything but cardioid microphone settings, you don't know what you're missing. If you want to capture a spacious and natural tone, an omni capsule is the way to go. It also helps if that capsule has a slight treble lift, because high frequencies tend to attenuate over distance. Microphones work on sound pressure, sound velocity or a combination of the two. The proximity effect occurs when the velocity component exceeds the pressure component. Since omni capsules rely on sound pressure, they do not exhibit any proximity effect.