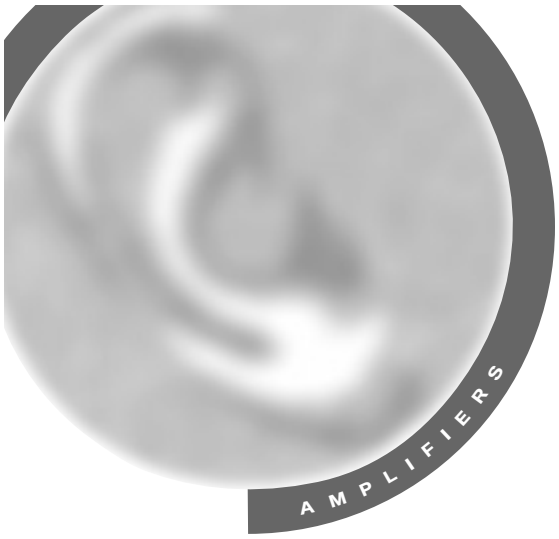

Manley Monoblocks Model SE/PP 300B "Retro"

Source: Manley Laboratories Inc.
Price: $5,500.00US or $8,000.00 Cdn/pair
Rating: ♪♪♪♪

The "300B sound" is regarded as the bees knees by some folks

The monoblocks under review are part of this American company's rather elaborate line-up of electronics. However, most of Manley's electronics are made for professional application, such as studios, while these amplifiers represent only a small part of their business—the consumer electronics segment. It was Eve Anna and David Manley who, in 1993, established the company and managed to raise it to international prominence. After David left the company, Eve Anna, now sole owner and CEO, took Manley Laboratories Inc. to new highs. Her prior experience working with VTL proved to be a valuable asset in running a multi-million dollar enterprise which has registered a phenomenal 75% growth since she took over. Eve Anna is assisted by Craig Hutchinson and Baltazar Hernandez. The company employs more than forty people and it's still growing. (In an industry dominated by males, Eve Anna stands out as an example for all women who believe that audio is only for men).

Appearance:
These monoblocks are compact designs, each measuring 8 inches wide, 21 inches deep and 7 inches high. Though small, each mono amp weighs 30 lbs. Tubes, caps and transformers are mounted on a solid steel/chromium chassis with the on/off toggle switch on the front right, the single-ended/push-pull selector on the front left and a small window housing the logos in the centre. On the rear of the amps, an input selector switch allows single-ended (RCA) or balanced (XLR) connection. On the chassis' top front, another rotary control allows manipulation of feedback. All in all, these amplifiers have a very high "Q"(for cute) factor in addition to a touch of elegance which is especially apparent when the units are switched on and the Manley logos/model number and the tubes glow seductively in the dark. There is no denying that the Manleys are very attractive components and coordinate well with any system set-up.

Technology:
The amplifiers are thoughtfully designed to accommodate various loudspeaker specifications as well as the listener's preference of sound. However,

the designer adhered to the classic vacuum tube topology of unprecedented simplicity as well as the technical geometry concerned with factors which remain consistent when a signal undergoes perpetual change. In simple terms, each monoblock amplifier is made to deliver 18 watts when operated in the single ended mode and 36 watts in the push-pull mode. In addition, the amps allow adjustments for feedback from a setting of zero to maximum, numbered in dB.

The tube arrangement consists of two 300Bs (output), one 6SN7 (driver), one 6SL7 (input), two 5U4 (rectifiers). The power rating at 3% total harmonic distortion operating single ended with 0dB feedback is 18 watts, 25 watts with 10dB feedback. In the push-pull mode with 0dB feedback the amps deliver 36 watts and achieve 42 watts with 10dB feedback. Frequency response in the single ended mode with 0dB feedback is from 15Hz to 16kHz; with 10dB feedback it is from 15Hz to 28kHz (+-1dB). In the push-pull mode with 0dB feedback frequency response is from 10Hz to 22kHz measured at 5watts, while with 10dB feedback, the response increases from 10Hz to 60kHz. Input sensitivity is 1 volt nominal, depending on feedback. Input impedance is 40kohm; output load taps are 4 to 12 ohms and 12 to 20 ohms. Signal to noise ratio at 33 watts is typically 100dB. Noise floor is 76dB from 10Hz to 30kHz.

Manley chose two rectifiers to permit substantial filter capacitors rated over 1300 microfarads in the B+ rail, thus improving the 4 or 8 microfarads utilized in early designs. Manley uses high purity wire and gold contacts in an excellent layout; all the amps' components are hand soldered with silver solder. The power supplies are "beefy"; as well, 1% metal film resistors, film & foil capacitors are used along with selected tubes.

The SE/PP 300B "Retro" employs a directly heated triode—essentially Lee De Forest's original 3-element piece, incorporating only filament, input grid and anode output.

Perfected by Western Electric USA and later by Standard Telephones in the UK (the 4300B), the 300B was used for telephone amplification.

The output tubes are carefully placed away from the mains transformer. The output transformer is hand-wound in Manley's factory and consists of a complex design employing excessively high primary inductance to make up for the necessary magnetic "gap" required for the uni-direction current and voltage flow of the single-ended output stage. Manley handled the single ended triode design with variable negative feedback. The 300B "retro model" offers the choice in precision-switched 1dB steps to go from 0dB's to 10dB's of negative feedback. Manley claims that even with zero negative feedback, this amp is cleaner and flatter than any single-ended amp of which they know. We can not confirm this but contend that a reasonable amount of feedback can refine and maximize an amplifier's performance. One of the more intriguing angles of negative feedback is that it provides a higher damping factor, but this shouldn't be taken as the only criterion for better performance. Rather, the optimum damping factor is not infinity and it depends on the speaker, the room and personal taste to optimize—thus variability is provided.

What we have here are versatile amplifiers that offer high-end, highly resolved sound

The Sound:

Luckily, we had the efficient JMlab Mezzo Utopia (reviewed in this issue) loudspeakers in-house to help us with our listening sessions and we began by connecting our in-house Wyetech Lab Opal preamplifier and our Audio Alchemist DAC/DTI Pro/Elite transport CD playback system. Wiring was achieved with Nordost SPM speaker cables and Quattro Fil interconnects.

Though brand new, the Manleys sounded very impressive straight out of the boxes and we couldn't resist listening to a few CD tracks right away. However, we operated the amplifiers for

about three days, burning them in with the help of the other in-house source component, the Magnum MD 108 tuner. Serious listening continued for a period of thirty days during which time all our panelists came by and auditioned the amps with various program material ranging from blues to sophisticated classical music.

Every single listener was impressed with the amplifiers' ability to present a multi-dimensional sound-stage, which can only be described as mesmerizing. Though deep, wide and high, the sound-stage preserved the image within realistic and well-defined boundaries. In addition, each instrument and each voice (where applicable) had its own space, its special ambience and a conspicuous spotlight on detail—the industry calls this "inner detail" which might be regarded as an understatement in relation to the Manleys.

One of the more intriguing angles of negative feedback is that it provides a higher damping factor

The "300B sound", regarded as the bees knees by some folks, isn't really apparent as the amplifiers actually handle musical program material with the sort of refinement which makes identifying a design by ear (or inner ear) nearly impossible. Rather, the Manleys accomplish high frequencies and midrange as well as one can expect from megabuck single ended amplifiers. Of course, there is the "blossoming", there is that euphonious euphoria, but there is also that touch of culmination at the ultra-high frequencies which only a select few designs can accomplish. Midbass and bass capacities of these amplifiers can fulfill the dreams of any enthusiast, but are more or less in the hands of the owner/operator. We adjusted the feedback control to suit the JMlabs' sonic disposition and our own preferences and ended up with the feedback control at the 12 o'clock position for best overall performance. The amplifiers' natural tendency to sound full-bodied and lush may cause some full-range speakers to sound a bit too rich in the bass—which can sound unresolved at the bass extremes. This can be manipulated by the user and involves amplifier adjustments and listening until the speakers' aural temperament and the listeners' preference are in harmony.

In another system configuration, we connected the Sugden preamplifier—a solid state design to be reviewed in our next issue—in the single ended mode (with RCAs) as well as in the balanced mode (XLRs). It should be understood that "balanced" here means a balanced line NOT a balanced amplifier, though the preamplifier is a fully balanced component. Balanced connection was achieved with a pair of Music Hose interconnects.

This configuration was a surprise as we didn't expect the Sugden to perform anywhere near as well as the Wyetech Lab Opal preamplifier. However, this combination sounded remarkably open, with a very low noise floor and stunning resolving calibre. The all-round sound was a touch harder, scarcely noticeable in the midrange and high frequencies, where the amplifiers' tonal equilibrium matched the Opal. At the bass, the Sugden introduced superior resolution all the way down to the pedal-note region, making this a winning combination at a very reasonably price.

Finally, Coincident Technology's Israel Blume came by with his Super Eclipse loudspeakers, reviewed in Vol. 11 #4—14 ohm, 92dB efficiency rating—for a final audition. This time we readjusted the feedback and connected the speakers to the 16 ohm terminals and "bang"! Blume was right (see below); the Manley's delivered stunning performance when connected to the SEs. The sonic accomplishment was in line with the system evaluation described above, though to a lesser degree as one might expect in the, now reduced, price of the system. The Manleys established that a harmonious match with a variety of loudspeaker designs is relatively easy to achieve by using the supplied controls; thus, tweaking is allowed, even recommended.

Synopsis & Commentary:
Coincident Technology's Israel Bloom

used the SE/PP 300Bs at last year's Chicago show and told us how much he enjoyed them, prompting us to request a pair to review. As well, our Editor auditioned Manley amplifiers a couple of years ago at the WCES in Las Vegas where they were connected to Tannoy Churchill speakers, and he was impressed as well. Now that we all have had the pleasure of getting to know these little gems, it's thumbs up—way up.

Audio enthusiasts of older times swore by the 300B design but had to find alternatives as the American Western Electric 300B was taken out of production in the late 1980's. This made the authentic originals quite expensive and collectors' items—until now, that is.

What we have here are versatile amplifiers that offer high-end, highly resolved sound when combined with a good preamplifier. Our tests demonstrated that the Manleys perform beautifully with a well-matched preamp—and the preamp doesn't have to cost an arm, but should be chosen on sonic merit to achieve the important system synergy. Though we didn't have a lot of speakers in-house for our tests, there is no doubt in our minds that any (hopefully good) loudspeakers with around 90dB efficiency rating will work well with the SE/PP 300Bs. As with all great audio systems, it is important to use the very best source components, interconnects and speaker cables your budget (or mate) will allow. When every detail within the system is handled conscientiously, the Manleys will not sound like upscale vacuum tube amplifiers; instead, they will sound like music and it'll be very difficult to hear the design philosophy, the specifications or the genre. The Manleys are made for music—and it can be said that (reproduced) music is made for amplifiers such as the SE/PP 300Bs.

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