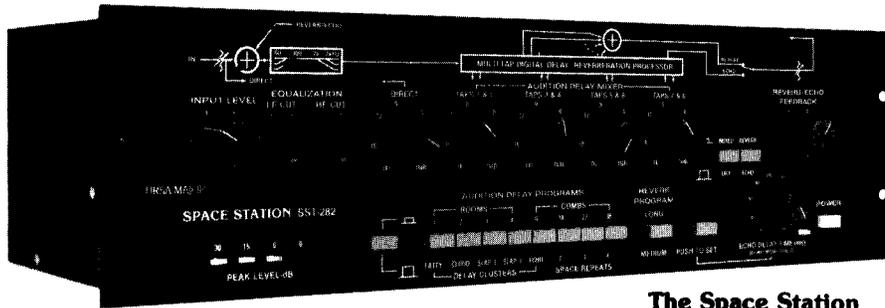


# Input Output Instruments and Accessories

## The First from Ursa Major

by Fred Miller



The Space Station

### Ursa Major Space Station SST-282.

With the virtual ocean of special-effects devices on the market today, it is a rare pleasure to find one that is unquestionably worthy of a close second look.

Though the Space Station is primarily a digital delay device for signal processing onstage and in the studio, to categorize it only as such does it an injustice. Whereas most digital delay lines (DDLs) that cost from half to more than twice as much will give you a variety of delay times and possibly a feedback controller to create reverberation, the SST does much more. Let's begin with the "taps." Put simply, taps are like faucets. Each tap on a DDL is an output, fixed or adjustable, for a delayed signal. I know of a couple of units that offer as many as five taps; the Space Station offers eight "audition taps"-four pairs-which can be chosen independently or in combination and sent with the direct signal to the stereo outputs.

The Space Station also has sixteen "audition delay programs." Four buttons on the front panel-marked ROOMS 1, 2, 3, and 4-permit the signal to be auditioned in any of four modes that approximate rooms of different sizes. The range is from a 70-millisecond delay in ROOM 1 to a 255-millisecond delay in ROOM 4. When these are used in conjunction with the feedback controller, they produce a smooth reverberation with no audible bumps in the decay time. Or they can be used without feedback for vocal doubling or thickening or for multiple echoes. The COMB push-buttons, to the right of the ROOMS, switch in a set of filters to create a succession of

peaks and nulls (cancellations) in response by processing the original signal and several generations slightly delayed from the original. This effect can be created with standard flangers but not as precisely as on the SST. The combed signal can be regenerated and fed again through the combs or through ECHO. The resultant sounds can be truly spacelike-in fact, the possibilities are virtually infinite.

The section labeled DELAY CLUSTERS has five switches for effects ranging from a loudness-enhancing delay of under 40 milliseconds (FATTY) to a very discrete delay of 250 milliseconds (ECHO). These can be used in a number of different situations. SPACE REPEATS 2, 3, and 4 provide two, three, or four repetitions of the original signal, with selectable delay times of up to 255 milliseconds, and can be set for successive repeats that move from left to right, L-R-L-R, or L-C-R at the stereo outputs. They can also be used to bounce normal reverberation from left to right, creating a ricochet effect as the reverberation dies away. Another ECHO

position controls an effect similar to a tape loop's, but the digital processing allows more precise

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spacing-and, of course, there is no tape noise.

The Space Station has some other nice touches. With its user-controllable high and low filters and nine-input mixer, you don't need to tie up the faders on a console or use elaborate patching. You can also blend the original signal with the ones you've created and then equalize the output, so you'll need one less input module than you would in a straight mix. (After lifting the signal to be processed from a tape recorder, bring the equalized outputs of the Space Station back to two unused pots and patch to buss.) The SST is a mono-in / stereo-out device with peak-reading LED level indicators to help the user optimize the amplitude of the input signal. It has high-impedance inputs and low-impedance outputs, and it's nineteen inches wide.

We put the Space Station through its paces with a simple bass-drum track and came up with a dozen separate effects, some of which I'd never heard before. We used it on vocals, percussion, and grand piano and, as an instrument by itself, with only a click track to trigger it.

The space voices sounded great, particularly when used in conjunction with the SPACE REPEATS, which are repeatable at will-you don't "lose the setting." As for straight reverberation, we compared it directly with a \$6,000 reverberation plate and found it sounded at least as good, if somewhat different in character. As a tape slap, it was indistinguishable from a tape recorder, except-as noted earlier-quieter and more versatile.

Specifications for the Space Station SST-282 include a frequency response of from 20 Hz to 7 kHz (you won't miss it, believe me), dynamic range of 80 dB minimum from 20 Hz to 20 kHz, and distortion and noise at 0.2% maximum including quantizing noise; the digital sampling rate is 16 kHz. XLR connectors are used at the single input and dual outputs. The price is \$1,995.

Ursa Major, the manufacturer, is a small outfit, and the unit may be a little difficult to come by, but it is worth the wait. The Space Station is something else. 4)

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