

# CONBRIO

## ADS200

ADVANCED DIGITAL MUSIC SYNTHESIZER

AUDIO synthesizers



## The ADS 200 . . . Digital Music Power

The **ADS 200** contains the most sophisticated and powerful digital electronics ever devoted to producing music. The instrument's electronics include:

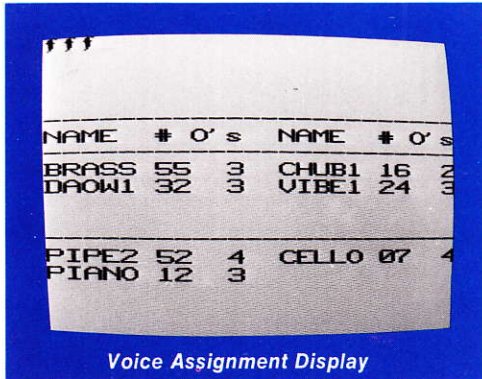
- **5 Microprocessors**
- **64 Multiwaveform digital oscillators** (expandable to 256 oscillators) each with independent 16 segment amplitude and frequency envelope generators.
- **Dual 16-bit stereo output channels** (expandable to quad) giving 96 db dynamic range.
- **More synthesis modes** than any other synthesizer in existence.

This unparalleled digital hardware translates into music-making power—full polyphony, infinite voicing and incomparable features.



## The ADS 200 . . . The Understandable Digital

The **ADS 200's** Control Console was designed by and for the people who make music — musicians. The **ADS 200** is an instrument not a computer. Each button on the Control Console performs a powerful, understandable and musical function. Furthermore, the Control Console's buttons light up in a logically sequenced fashion helping the musician to utilize the **ADS 200's** limitless capabilities. Analog controls, already familiar to the synthesist, are provided on the Control Console wherever possible. The **ADS 200** is made even easier to use by its video screen which provides understandable visual displays for every aspect of the instrument's use.



## The ADS 200 . . . Designed to Perform

The **ADS 200** has the speed and features that produce incomparable performance. The **ADS 200's** 8" floppy disk drive is the fastest storage and retrieval system on any synthesizer. Synthesized voices, programming commands and keyboard activity all can be stored on a disk and instantly recalled. When a musician wants a voice or a combination of voices on the **ADS 200's** two five-octave keyboards, he presses a button and it's there — **now!** The **ADS 200** has the speed and responsiveness that live performance demands. And, by simply inserting new disks, the artist can have infinite storage capacity. In addition to its speed, the **ADS 200's** awesome performance is enhanced by its unmatched capabilities:

**VOICE ASSIGNMENT:** Any sound or combination of sounds stored on an **ADS 200** floppy disk can be recalled and assigned instantly to either the left or right side of either keyboard.

**KEYBOARD SPLIT:** The point at which either keyboard is split, dividing the left side from the right side for Voice Assignment, can be moved anywhere to the left or right of middle C.

**TUNING:** Alternate tunings can be called from an **ADS 200** disk enabling the musician to instantly retune either or both sides of either keyboard. Also, a fine-tuning adjust. feature is provided allowing the **ADS 200** to accompany other instruments not tuned to A-440.

**VOLUME:** Voices assigned to the keyboards may be made louder or softer to balance with other assigned voices.

**CHANNEL ASSIGN:** Voices used on the keyboards can be assigned to either of the **ADS 200's** stereo output channels (expandable to quad).

**ENSEMBLE:** The Ensemble feature permits the musician to store elaborate keyboard set-ups — including voice assignments, transpositions, volume balancing, channel assigns and cued playback material — as groups on an **ADS 200** floppy disk. These Ensembles can be created and recalled instantly with set-ups for an entire performance or recording session. An Ensemble's keyboard set-ups can be sequenced through with the touch of a button or foot switch.

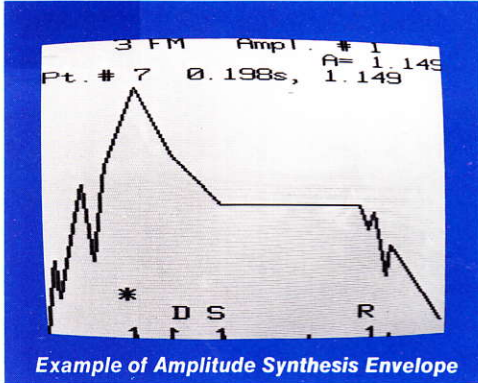
**MULTITRACK RECORD/PLAYBACK:** On the **ADS 200** the musician can record an unlimited number of fully polyphonic tracks and store them on a disk. The artist can play and record new tracks while accompanying previously recorded tracks. Up to four tracks may be played back simultaneously. Each track may be manually or automatically revoiced during playback. The voicing and voicing changes can be stored as Ensembles on a floppy disk. By combining these capabilities with the Channel Assign feature the **ADS 200** becomes a portable recording studio.

**METRONOME/CLICK TRACK:** The Click Track feature permits the **ADS 200's** playback capability to be precisely synchronized to external clocks, such as outboard sequencers and motion picture sound systems. This feature can also be used to sync **ADS 200** play back tracks on an external tape recorder. The Metronome feature allows complex polyrhythmic patterns to be played automatically by specifying fractional tempos.

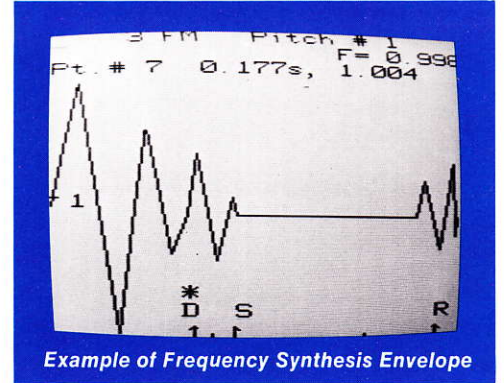


**MUSIC SCORER/PROGRAMMER:** The **ADS 200's** unique Music Scorer feature allows the artist to display in conventional music notation on the video screen music he has performed. The score can be printed on standard paper by an optional line printer and software package. With the use of the Music Programmer feature the score can be corrected and edited. Alternatively, with the Programmer, the musician can create complex musical passages from the Control Console by specifying pitch values, note duration and measure number.

**SYNTHESIS:** The **ADS 200's** incomparably powerful synthesis section allows the musician to create amplitude and frequency envelopes using either conventional ADSR analog controls or by specifying complex 16 segment envelopes. These unique envelope control features can be coupled, permitting the artist to create new sounds with analog speed while still maintaining the flexibility and precision of digital control. On the **ADS 200** six different waveforms are available for synthesis: sine, triangle, saw tooth square, pulse, and noise. The **ADS 200** also puts several synthesis modes at the artist's disposal including: additive synthesis, phase modulation, frequency modulation, nested phase and frequency modulation, and combinations of all modes. Once a sound is created on the **ADS 200** — including frequency and amplitude envelopes, waveforms, and synthesis mode — it can be permanently stored on a floppy disk and instantly recalled later.



Example of Amplitude Synthesis Envelope



Example of Frequency Synthesis Envelope

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The World's Most Advanced Digital Music Synthesizer



ADS 200

**QUESTION MARK (?):** The Question Mark feature allows the musician to view the contents of any floppy disk on the **ADS 200's** video screen. Lists of voices, tunings, ensembles and playback files can be viewed.

**The ADS 200 offers numerous keyboard operation modes:**

**REAL TIME CONTROLS:** Several real time controls are provided on the **ADS 200** including: vibrato rate and depth, release rate, and playback tempo. These functions can be controlled either from the **ADS 200's** Control Console or via foot pedals.

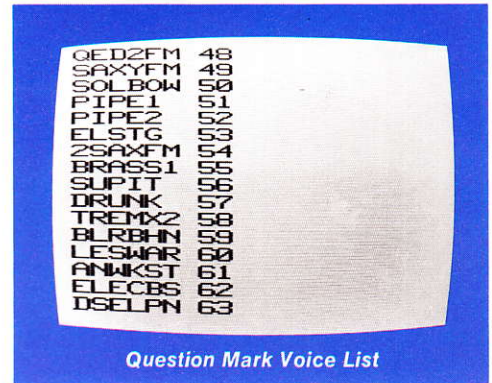
**INTERVAL COUPLING:** The **ADS 200** is capable of memorizing polyphonic intervals. Then, entire chords can be played by striking a single note. Also, any portion of either keyboard can be coupled to any other portion.

**ARPEGGIATOR:** The **ADS 200** features a myriad of arpeggiation effects. For example, single chords can be broken for arpeggiated runs up or down the keyboards.

**KEYHOLD:** Pressing the keyhold switch sustains the notes being played on a preselected portion of the **ADS 200's** keyboards. The sustained notes will die-off when the keyhold switch is pressed again. The keyhold function, like all keyboard operation modes on the **ADS 200**, can be activated from the Control Console or from a foot switch.

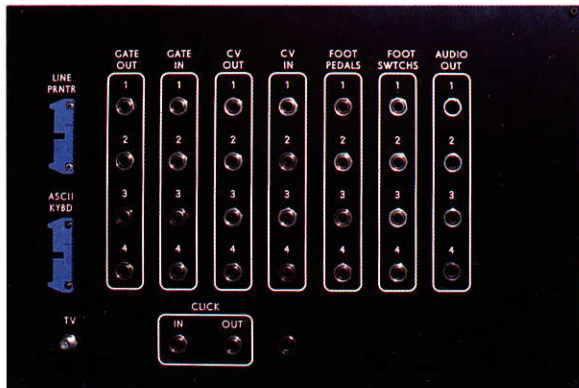
**SOLO VOICE:** In the Solo Voice mode, only the last note played on a preselected portion of the **ADS 200's** keyboards will sound. The note being played previously will die-off.

**ROLL MODE:** With the **ADS 200's** Roll Mode feature, consecutive notes played on a preselected portion of the keyboards will each sound with a different voice.



**Expandability, Interfacing and Future Developments . . .**

**ASSIGNABLE FUNCTIONS:** The **CON BRIO ADS 200** will always be state-of-the-art with its array of assignable switches. As new hardware and software is developed for the **ADS 200**, it can be added to any existing instrument. Use of these augmented capabilities would be assigned to unused switches on the Control Console.



Back Panel

**INDICATORS:** The **ADS 200** features a group of display indicators, including peak indicators for each of the output channels. In addition, the number of oscillators in use at any instant is always displayed on the video screen.

**AUXILIARY INPUTS/OUTPUTS:** The **ADS 200** is equipped with an array of control voltage inputs and outputs. Corresponding triggers are also provided. This permits the **ADS 200** to be master or slave to other synthesizers or sequencers.

**EXPANDABILITY:** The **ADS 200's** electronics is fully modular. Circuit cards can be added to the **ADS 200** to increase the number of digital oscillators from 64 up to 256. Also, as new hardware is developed, existing **ADS 200's** can be modified by adding new circuit cards.

**DIMENSIONS:**

- Height . . . . . 21"
- Length . . . . . 48"
- Depth . . . . . 31"
- Approx. Weight . . . . . 175 lbs.



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PATENT PENDING