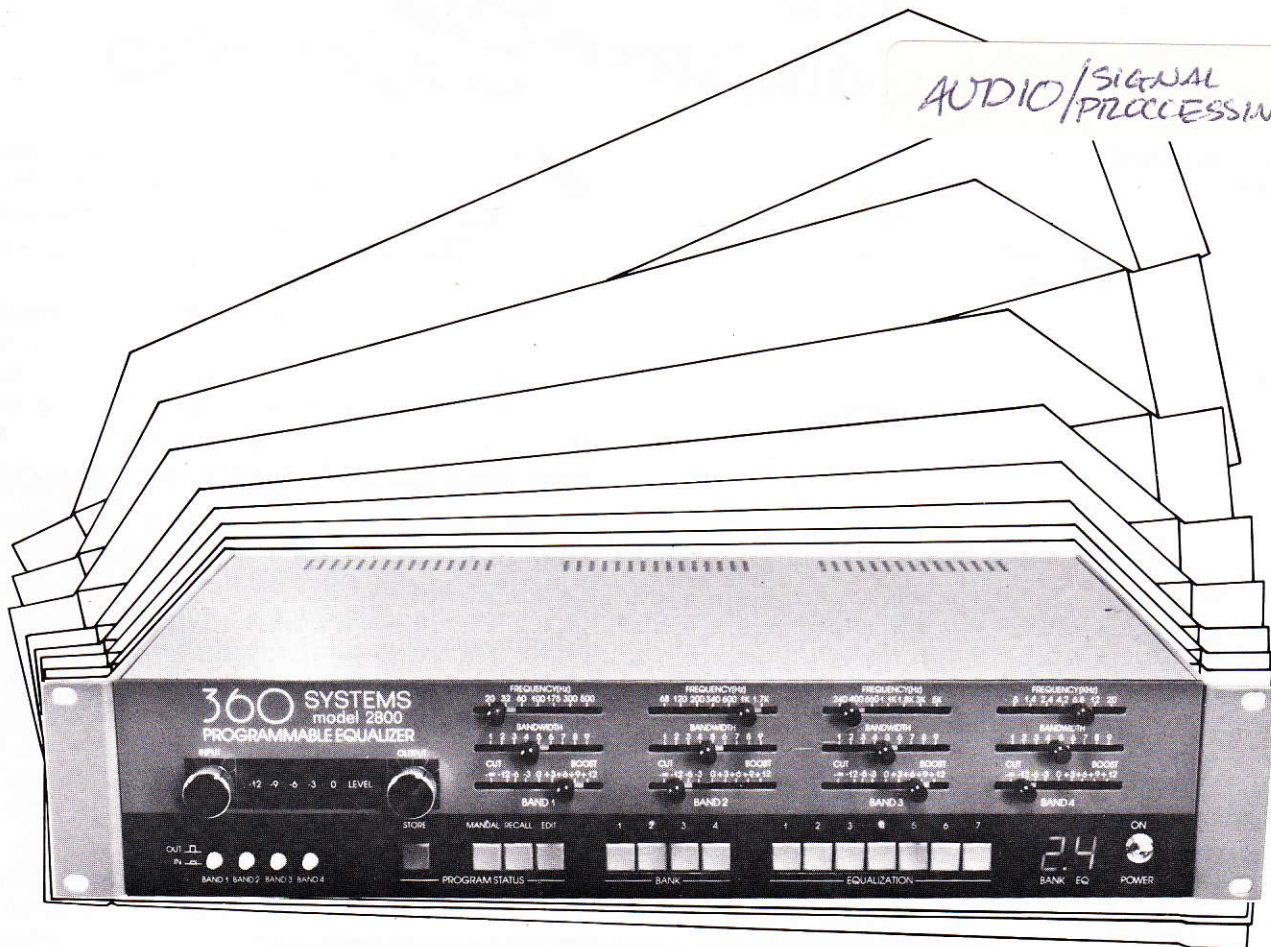


AUDIO/SIGNAL  
PROCESSING

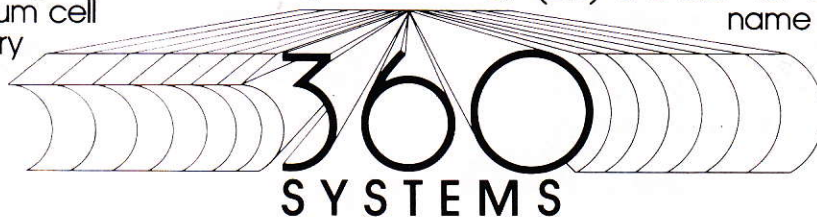


## THE EQUALIZER WITH A MEMORY

360 Systems' new Programmable Parametric stores and recalls 28 sets of EQ curves and level settings from its own internal memory. It gives instant access to the special sounds you've stored away, and lets you organize them into sequences for mixdown. You won't have to buy a whole automation system to use the 2800 EQ. It's a completely self contained system, using a Z-80 Microcomputer to manage the affairs of an analog equalizer. Now you can pull the plug and take your sound from the studio to the cutting room. Or get repeatable special effects on the road with a stage act. It won't forget, either - a lithium cell keeps memory up when-ever AC power is down.

The 2800 is a **broadband** constant-Q parametric. Listen to it - it sounds better. Broad, easy curves come just as easily as its narrow 60 dB notches - great for fixing problems like hum and camera noise. The output level's programmable too. When you change EQ, you'll often want a level shift to preserve the same "apparent loudness" level. Now you've got it. And there's an optional interface connector to tie in with feet/frames or time code cue decoders. Or with anybody else's console automation.

The Programmable Parametric is a 360 Systems exclusive. Call Bob Easton at (213) 342-3127 for details, and the name of your nearest dealer. Ask for a demonstration in your own studio.



18730 Oxnard Street #215, Tarzana, CA 91356



# 360 SYSTEMS PROGRAMMABLE EQUALIZER

Model 2800 is a fully programmable parametric equalizer. It will store and recall up to 28 sets of equalization curves developed by the user. It also makes direct comparisons between different equalizations stored in memory. And in music or film production, a mixer can set up a series of creative EQ changes, and execute them in sequence during a mix. Programmability offers a number of editing and automation functions that greatly improve audio quality, while making the equalizer easy to use.

## MICROCOMPUTER BASED OPERATION

The Programmable Parametric isn't made like any other equalizer on the market. It uses a Z-80 Microcomputer for control, and CMOS memory for storage of 28 complete scenes of the front panel. There isn't any tape needed. A lithium cell protects stored EQ curves against loss of AC power.

The equalizer has three operating modes. The **manual** mode places it under control of the front panel. The sound you hear can be saved in any of the 28 memory locations by pressing the store button.

The **recall** mode places the equalizer under

the control of computer memory, which contains settings previously stored from the front panel. As different memory locations are selected, different equalization curves will be heard.

The **edit** mode is a combination of manual and recall modes. The equalization heard was previously stored in memory, but it can be changed with the front panel controls to better suit the needs of the moment.

## THE PARAMETRIC COMES OF AGE

Like many other products, better parametric equalizers have evolved with time. This one introduces the unusually gentle slopes associated with a five octave bandwidth. Yet when narrow peaks and dips are needed, it becomes extremely selective. Output level is remembered along with equalization, so that when spectral changes cause a shift in apparent loudness, it can be corrected to produce consistent sounding programs.

Model 2800 is available in single and dual channel versions. Options include balanced transformer output, and remote control capability for automation and time code cueing.

## SPECIFICATIONS

### AUDIO

Frequency response:  $\pm .2$  dB 10 Hz to 20 kHz

Harmonic distortion: Less than .1%, typically .05%. Residual is primarily second harmonic.

Noise: 86 dB below maximum output, 20 kHz bandwidth, measured at unity gain, all bands in, no boost or cut. Residual is gaussian.

Output: +20 dBm, single ended; Z = 47 ohms. Output XFMR optional.

Output control:  $\pm 12$  dB gain adjustment

Input: -4 dBv or greater. Z = 100k-ohm electronically balanced.

Headroom indicator: 3 dB steps from clipping to -12 dB. Shows true headroom by sampling six locations in the equalizer and displaying the worst headroom condition.

Bypass switches: perform mechanical disconnect of resonators.

Equalizer frequencies: Band 1: 20 Hz to 500 Hz  
Band 2: 68 Hz to 1.7 kHz  
Band 3: 240 Hz to 5 kHz  
Band 4: 800 Hz to 20 kHz

Bandwidth: Adjustable from 1/6 octave to five octaves.

Boost/Cut: +12 dB to minus infinity (typically 60 dB below input) Equalization contours are "constant-Q", rather than reciprocal.

Connectors: XLR-3. Pin 1 ground, Pin 2 low, Pin 3 high

### DIGITAL SYSTEM

Microcomputer system: Z-80A; 5101 CMOS RAM; 2704 EPROM

Front panel scan rate: 7 milliseconds/frame.

Quantization: Frequency: 20 cents (.2 semitone)  
Bandwidth: 24 cents (.24 semitone)  
Boost/Cut: .2 dB above 0 dB boost

Power down: Power failure sensing circuit switches memory to low power battery support. Estimated 10 year support from internal lithium cell.

Display: Selected memory location.

### PHYSICAL AND ELECTRICAL

Dimensions (HWD): 3 1/2" x 19" x 12 1/2". Allow additional 3/4" forward of mounting surface for panel controls.

Weight (net): 12.5 lbs.

Power requirements: 25 watts.

Cooling: natural convection; free air circulation required around unit.