

# NAVIGATOR™ SYSTEM PROCESSORS

The new Navigators offer even more choices for maximum flexibility. Choose your base model: **full front panel control** or **blank front panel**. Then choose your options: **Microphone Preamps, Digital Audio I/O, or Wall Panel Remote Ready**. All Navigators offer fast setup of your production audio rig, easy and secure configuration of your commercial or worship sound system, and complete signal routing for multi-room venues. Steer your way to a better sounding system with the new Sabine Navigators.

Loudspeaker  
Controller

Matrix Mixer

Signal Router

- Superior Sound Quality
- 96 KHz Sample Rate\*
- No Limit on DSP Power
- Equalization
- Crossovers
- FBX Feedback Exterminator®
- Gain Management
- Routing
- Delay
- Presets
- Security
- Front panel or software control
- New wall-panel remotes
- RS232, USB, & Ethernet\* connectivity

\*NAV4902, 8802 only

**SABINE®**  
the sound of innovation



The Sabine Navigator System Processors now include microphone preamp options and blank front-panel models. All units feature a new hardware platform, new front panel design, new remote control software, and more input/output and control choices for even greater flexibility. We didn't change the superior sound quality – in fact we enhanced it with the edition of 96 KHz sample rates on the top two models – the NAV4802 and the NAV8802.

### Unlimited DSP

The Navigator Series is a complete multi-input/output digital system processor designed for commercial installation and production audio. Navigators use 32-bit (40-bit extended) floating point processors and high performance 24-bit digital converters. All functions operate concurrently and are controlled simultaneously. There is no need to compile any files or settings, and the powerful Analog Devices SHARC processors handle the DSP processing. Best of all, you never run out of resources! All functions work together, so go ahead and set FBX feedback control filters on every input and compressors on every input and output – no problem!

Navigator blank front panel versions include Sabine's new Automatic Mic Mixing function, with independent control of mic priority, attack, release, threshold, and gain on each channel. Combined with the FBX Feedback Exterminator the Navigator will provide more gain before feedback than conventional automatic mic mixers.

### Better Control

As the name implies, the Navigator is all about control. The new Navigator Remote Control software provides a heads-up display of all systems status and fast access to all parameters. This highly intuitive interface allows you to choose from two main views: Matrix or Mixer. The Mixer view is especially useful with the addition of the microphone preamps. If you can run a mixer, you can run this software.

Equally powerful is the front panel control for those times when you need full access at the rack position. When integrating the Navigator as part of a larger system, choose USB, RS232, or Ethernet as your connection protocol. Serial and Ethernet-based touch screen control is also possible with all Navigators. The new NAVRC-100 Wall Panel Remote is an attractive 2-gang remote control that is wired to the Navigator for trouble-free remote control. Programmable Menu and Value switches can be assigned to most of the Navigator functions, and the built-in, backlit LCD displays the name of each menu and preset. The Wall Panel Remote makes for a very powerful control system, and allows for multiple control points for multiple Navigators which can be mounted strategically throughout the installation.

### Superior Audio Quality

One of the pioneers in the field of digital signal processing, Sabine's research and development into digital filtering technology provides an edge in both sound quality and reliability. The FBX Feedback Exterminator is one of the many innovations originating from the engineers at Sabine. This vigorous development is applied to all DSP functions of the Navigators, including equalization, automatic mixing, routing, crossovers, and gain management.

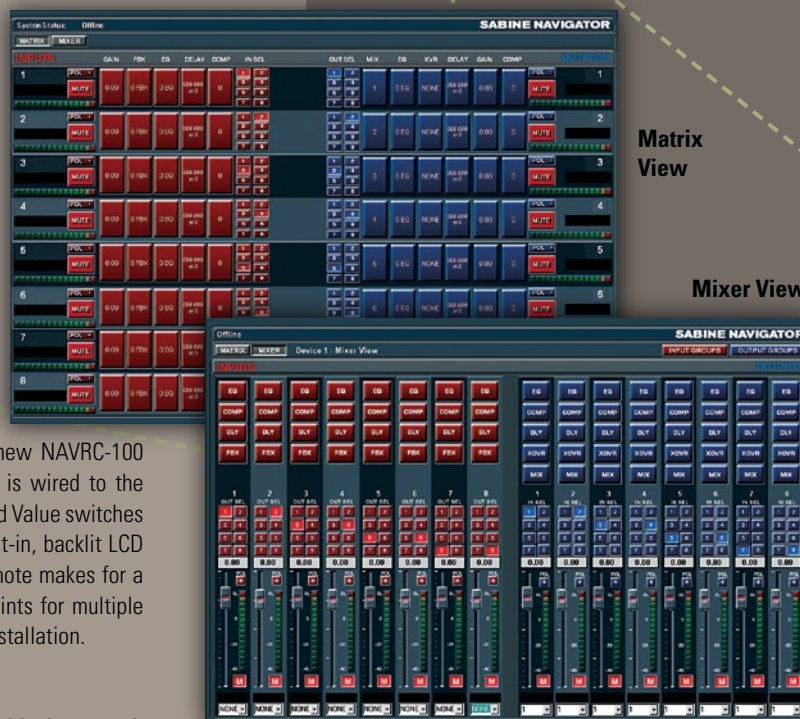
Free firmware and software upgrades are easily done by connecting to Sabine's web site. You can always keep your Navigator current with newly developed algorithms and functions as they become available. Flexible save and recall functions and complete system security round out these rugged units.

The new Navigators continue the Sabine tradition of simplicity, flexibility, and value. Navigators will improve the sound quality and the adaptability of sound systems for churches, schools, boardrooms, theaters, concert halls, offices, retail outlets, and all levels of touring and production systems.

**Contact Sabine today for a test flight of the new Navigator System Processors.**

# New Sabine Navigator™ System Processors

Set your course for a better sounding system.



Matrix View

Mixer View

- Loudspeaker Controller for Production Audio
- Matrix Mixer for Commercial Audio
- Signal Router for Distributed Audio

**NAVRC-100  
Wall Panel Remote**



For Maximum Fidelity and Connectivity



NAV8802



NAV4802

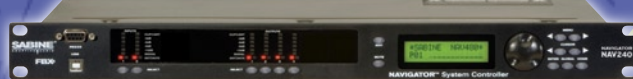
For Maximum Value and Flexibility



NAV480



NAV360



NAV240

For Maximum Security and Value



All models now available with blank front panels.

## NAVIGATOR TOOLS

### Equalization

- Parametric, Shelving, High & Low pass, 8-bands per each I/O
- FBX Feedback Exterminator, 8 filters per input

### Crossovers

- Multiple types and presets
- Three filter types
- Slopes to 48 dB

### Gain Management

- Gain on all I/Os
- Compressors
- Limiters

### Mixers

- Input/Output Mixer
- Matrix Mixers
- Automatic Mic Mixers
- Microphone Preamps with Phantom Power

### Routing & Delay

- All inputs to all outputs
- Polarity
- 650 msec available per channel (4802 and 8802 Series); 50 msec (240, 360, 480 Series)

### Memory and Security

- 30 programs, save and recall
- Multiple security levels, software & front panel
- All firmware and software upgradeable

### Controls

- Front panel: Instant menu access and linking for each I/O; Gain LEDs for each channel; LCD, datawheel
- Remote: Navigator Control Software via USB, RS232 Serial, Ethernet (NAV4802, NAV8802); NAVRC100 Wall Panel Remote Controller

### Control Accessory

- NAVRC-100: Wall-mounted Remote Control Panel (requires Wall Panel Remote Ready (R) option on connected Navigators)

### Base Models: Front Panel Control; all with USB & RS232 connections

- NAV240: 2 in 4 out System Processor
- NAV360: 3 in 6 out System Processor
- NAV480: 4 in 8 out System Processor
- NAV4802: 4 in 8 out System Processor, with Ethernet
- NAV8802: 8 in 8 out System Processor, with Ethernet

### Base Models: Blank Front Panels; all with USB & RS232 connections

- NAV240-S: 2 in 4 out System Processor
- NAV360-S: 3 in 6 out System Processor
- NAV480-S: 4 in 8 out System Processor
- NAV4802-S: 4 in 8 out System Processor, with Ethernet
- NAV8802-S: 8 in 8 out System Processor, with Ethernet

### Options: Add to Base Models

- Microphone Preamps (M): Available on all base models
- AES Digital I/O; DB25 connector (D): Available only on 4802 or 8802 series Navigators
- Wall Panel Remote Ready, RJ45 connector (R): Available on all base models



## NAVIGATOR SPECIFICATIONS

### Inputs and Outputs

Input Impedance: >10k Ohms  
 Output Impedance: 50 Ohms  
 Maximum Level: +20dBu  
 Type: Electronically balanced

### Audio Performance

Frequency Response: +/- 0.1dB (20 to 20kHz)  
 Dynamic Range: 115dB typ (unweighted)  
 CMMR: > 60dB (50 to 10kHz)  
 Crosstalk: < -100dB  
 Distortion: 0.002% (1kHz @+4dBu)

### Digital Audio Performance

Processor: 40-bit  
 Sampling Rate: 96 kHz (4802, 8802);  
 48kHz (240, 360, 480)  
 Analog Converters: High Performance 24-bit  
 Propagation Delay: 1.2ms for 96kHz, 1.5ms for 48kHz

### Front Panel Controls

Display: 4 x 26 (4802, 8802) / 2 x 16 (240, 360, 480)  
 Character Backlit LCD  
 Level Meters: 5 segment LED  
 Buttons: Mute/Edit Controls, Menu Controls  
 Data Encoder: Embedded Thumb Wheel

### Connectors

Audio: 3-pin XLR or Euroblock – model dependent  
 RS-232: Female DB-9  
 USB: Type B  
 Ethernet: RJ45 (4802, 8802)  
 Power: Standard IEC Socket

### General

Power: 100-240 VAC (50-60Hz)  
 Dimensions: 19"x1.75"x9" (483x44x229 mm)  
 Weight: 7lbs / 3.2kg

### Audio Control Parameters

Gain: -40 to +15dB in 0.25dB steps  
 Polarity: +/-  
 Delay: Up to 650ms per I/O (4802, 8802); 80ms per I/O (240, 360, 480)  
 Equalizers (8 per I/O)  
 Type: Parametric, Hi-shelf, Lo-shelf

Gain: -30 to +15dB in 0.25dB steps  
 Bandwidth: 0.02 to 2.50 octaves (Q=0.5 to 72)  
 Crossover Filters: Allows asymmetrical filters  
 Filter Types: Butterworth, Bessel, Linkwitz Riley  
 Slopes: 6 to 48dB/oct

### Compressor/Limiters

Threshold: -20 to +20dBu  
 Attack: 0.3 to 100ms  
 Release: 2 to 32X the attack time

### FBX Filters

8 independent FBX digital filters per channel, each switchable between FBX fixed filters and FBX dynamic filters  
 Filter depth: Maximum automatic depth adjustable from -6 to -40 dB  
 Filter width: User-controllable from 2.50 to .02 octave  
 Resolution: 1 Hz from 20 Hz to 20 KHz  
 Time required to find & eliminate feedback: typically 0.3 seconds @ 1 KHz

### System Parameters

No. of Programs: 30  
 Program Names: 12 character length  
 Delay Units: ms, ft, m  
 Frequency Adjustment: up to 1Hz resolution  
 Security Lock: Lock/Unlock, by menu and function  
 Copy Channels: All parameters  
 Link Channels

### Remote Control

Navigator Remote Control Software

- RS232 & USB: Standard on all units
- Ethernet: Control up to 16 Navigators per session; requires network switch
- NAVRC-100 Wall-mount Remote Control Panel; RS422 Control of up to 2 Navigators per panel; each Navigator can be addressed by up to 32 panels

### Upgrades

Operating system firmware stored in Flash RAM. All future upgrades for firmware and software downloadable from Sabine website using Upgrade Wizard.

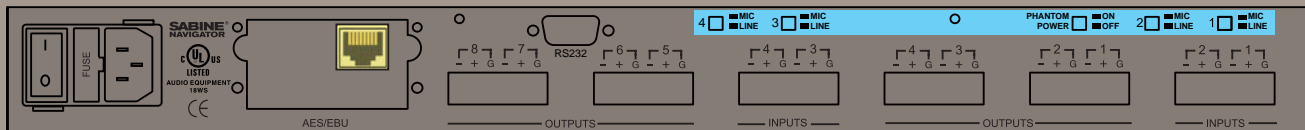
### Notes:

Below approximately 200 Hz the feedback filters become slightly wider to increase the feedback and rumble capture speed at these low frequencies.

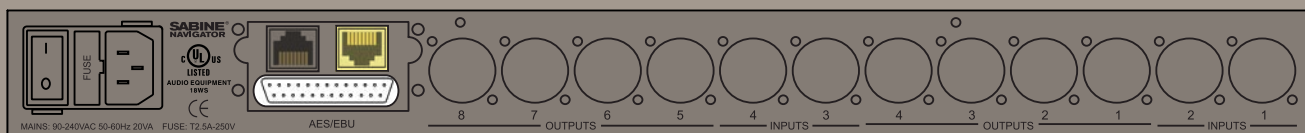
Tests performed using an Audio Precision System One model 322 or equal.

*Specifications subject to change without notice.*

**Navigator Back Panels: Two of the many possible base model/option combinations. Options shown in colors for clarity.**



NAV480-S-MR: 4 x 8 Navigator with Blank Front Panel; Options: Mic Preamp [blue] and Wall Panel Remote Connector [yellow]



NAV4802-MDR: 4 x 8 Navigator with Front Panel Control; Options: Mic Preamp\*, Digital I/O [white], and Wall Panel Remote Connector [yellow]

One-year limited warranty  
 Patented†  
 Other Patents Pending



Complete Operating Guide & Catalog  
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\*software controlled

†FBX and FBX Feedback Exterminator are registered trademarks of Sabine, Inc., and are the brand names of its line of automatic feedback controllers. Covered by U.S. Patent No. 5,245,665, Australian Patent No. 653,736, German Patent No. 69118486.0, U.K. Patent No. 0486679, and Canadian Patent No. 2,066,624-2. Other patents pending.