

Audio Routing System

- 32 x 32 in a compact 2 RU package
- Multi-point RS-485 & RS-232 interfaces
- Stereo/mono easily integrated within system
- Many off-the-shelf interconnect options
- Superb analog quality broadcast performance
- Non-volatile system memory
- 118 dB dynamic range
- Alphanumeric front panel controls
- Compatible with all SAS remote control heads
- Built-in audio confidence monitor



THE SAS 16000 AUDIO ROUTING SWITCHER

is a high performance microprocessor based audio switching system designed for professional broadcast facilities. A central switching system provides the flexibility to meet the demands of today's fast paced broadcast environment. Adding or changing sources is greatly simplified. Connect to the central switch, type in a new name and it's available everywhere!

The SAS 16000 brings SAS quality and reliability to the broadcast plant which requires up to a 32 x 32 matrix, all at a very attractive price. Rugged design and construction combine with the latest LSI technology to yield uncompromising performance. We've even included a built-in audio quality assurance monitor.

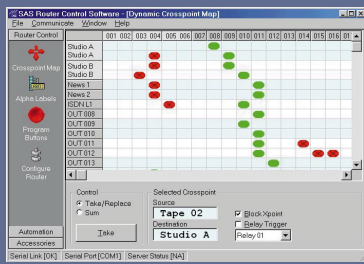
A BRIEF TECHNICAL DESCRIPTION

The SAS 16000 provides a 32 x 32 matrix in a two rack unit chassis, and includes full system access controls

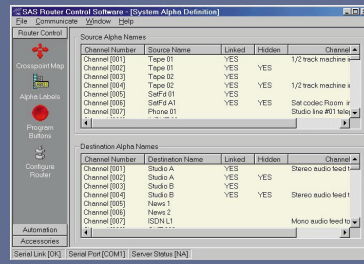
with alphanumeric displays on the front panel. SAS RCS Router Control Software runs on a PC for programming alphanumerics, pushbuttons and other system parameters. Macros and presets are programmable via the RCS.

The 16000 can be configured to operate as a mono, stereo or a mixed mono/stereo system. Adjacent inputs or outputs can be linked as stereo pairs and treated as a single source or destination. Stereo linking provides a flexible and convenient solution for facilities which have both stereo and mono sources and destinations to manage. Alternately, a slave chassis may be added to allow 32 x 32 all-stereo operation.

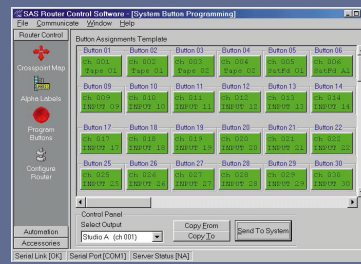
As a standard protection feature the SAS 16000 CPU is equipped with non-volatile memory for safekeeping of all alphas, pushbutton tables and crosspoint status in the event of power loss.



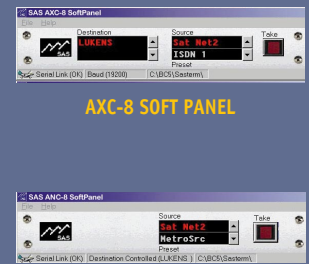
DYNAMIC MATRIX MAP



ALPHA EDITING



PUSHBUTTON PROGRAMMING



AXC-8 SOFT PANEL



ANC-8 SOFT PANEL

PROGRAMMING DISPLAY SCREENS

SYSTEM INTERCONNECT: PLUG-N-PLAY

SAS has made available several pre-made interconnect options to speed installation. The 16000 Series uses gold plated “micro-ribbon” connectors for quick, reliable connection. Typical installations wire the switcher to blocks on a cross-connect wall for connection to sources and destinations. Plug the off-the-shelf cables in to your choice of cross-connect blocks and you’re ready to wire. Siemon Multi-Flex blocks and ADC ICON panels are designed specifically for stranded wire. Adapters are available which break out to screw terminal blocks. And, of course, the ever popular “66” blocks are also available.

SYSTEM CONTROL

The central control processor provides 2 RS-232 and 16 RS-485 serial ports. One RS-232 port is for connection to a computer for system programming while the other contributes a (USI) User Serial Interface for connection to an external automation computer or other user system. SAS provides an open protocol for easy interfacing. The 16 isolated RS-485 ports provide points of access for SAS remote control panels.

SOFT PANELS

The SAS 16000 software package includes pop-up ‘soft’ panel graphical user interfaces. These virtual control panels are Windows applications which communicate to the SAS router control software (SAS server) over a standard LAN. Both ‘photo realistic’ and conventional Windows ‘pull down’ panels are included. These panels are convenient for locations already served by a PC and where a dedicated hardware panel is not required. Newsroom workstations, engineering offices or even the PDs office are all good candidates for these controllers. Remote off-site access is possible if the facility is equipped with a WAN.

REMOTE CONTROL PANELS

The SAS 16000 is compatible with the complete range of SAS remote control panels; console and rack mounted, with full alphanumeric or pushbutton capability. Single output controllers are available in several configurations: alphanumeric 8-character displays with rotary shaft encoder input selection; pushbutton input selection; alpha displays with “hot punch” pushbuttons; single rack unit 19” controllers; console mount (very small outline) controllers. Multiple outputs may be accessed with remote XY type control panels or from a PC.

MACROS & SNAPSHOTS

Macros (salvos) are used to activate several crosspoint commands as a single event. Each group of commands is programmed using the SAS Router Control Software and assigned a unique name which may be accessed by control panels operating in macro mode. The system also provides the ability to store and recall “snapshots” of the complete matrix crosspoint map.

REMOTE ACCESS

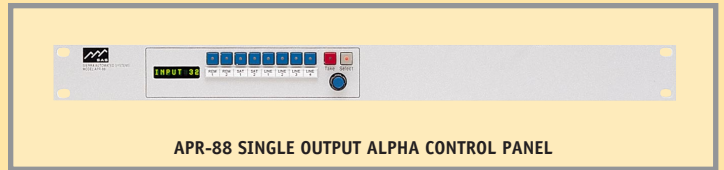
The 16000 supports several remote access options: ‘soft panels’ operating over a WAN, direct modem connection with remote router control software, access to the on-site computer via remote communication software (e.g. pcAnywhere) and even DTMF over dial up lines. SAS Engineering is readily available to assist with tailoring a remote access configuration.

AUTOMATION

Automation is available using our GPI 1600. The automation software runs on a PC and serves to capture news feeds, roll recording machines and other events. The GPI provides relay outputs and optional input triggers for machine interface.



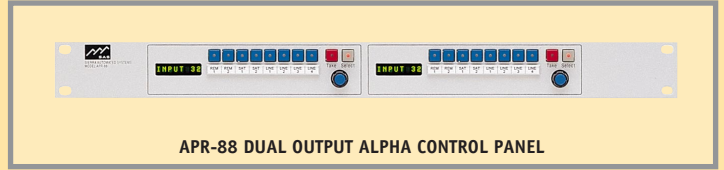
ANC-8 SINGLE OUTPUT ALPHA CONTROL PANEL



APR-88 SINGLE OUTPUT ALPHA CONTROL PANEL



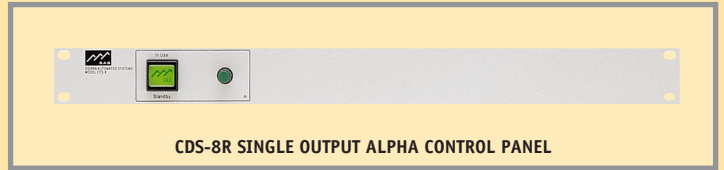
ANC-8D DUAL OUTPUT ALPHA CONTROL PANEL



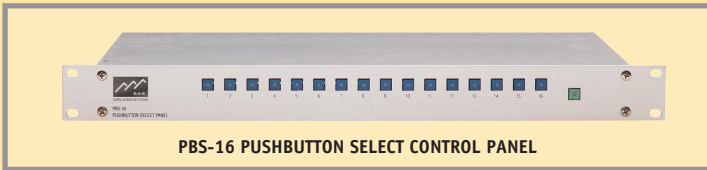
APR-88 DUAL OUTPUT ALPHA CONTROL PANEL



AXC-8 ALPHANUMERIC X-Y CONTROL PANEL



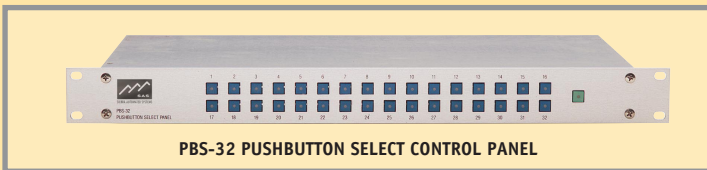
CDS-8R SINGLE OUTPUT ALPHA CONTROL PANEL



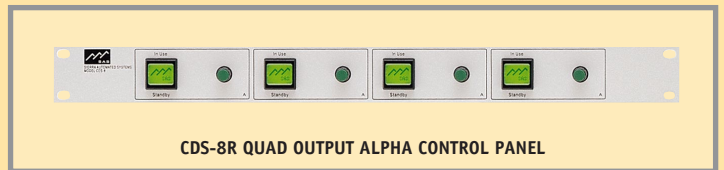
PBS-16 PUSHBUTTON SELECT CONTROL PANEL



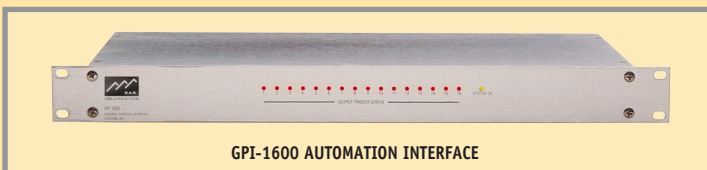
CDS-8R DUAL OUTPUT ALPHA CONTROL PANEL



PBS-32 PUSHBUTTON SELECT CONTROL PANEL



CDS-8R QUAD OUTPUT ALPHA CONTROL PANEL



GPI-1600 AUTOMATION INTERFACE



CDS-8 CONSOLE DUAL OUTPUT ALPHA CONTROL PANEL



CPI-80 SINGLE OUTPUT ALPHA CONTROL PANEL

APC-88 SINGLE OUTPUT ALPHA CONTROL PANEL

CRS-40 OUTPUT ORIENTED CONTROL PANEL

CDS-8 SINGLE OUTPUT ALPHA CONTROL PANEL

CDS-8 DUAL OUTPUT ALPHA CONTROL PANEL

CDS-8DT DESKTOP ALPHA CONTROL PANEL

DSS-8 SINGLE OUTPUT ALPHA CONTROL PANEL W/SPKR

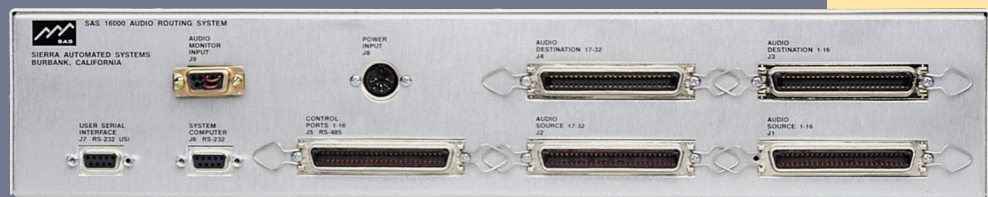
INTERCONNECTION OPTIONS



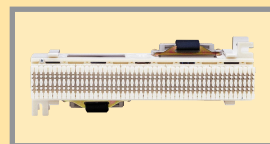
SAS 16000 FRONT PANEL



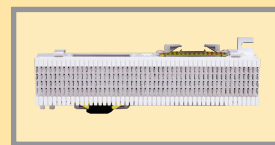
SAS 16000 SLAVE FRONT PANEL



SAS 16000 REAR PANEL



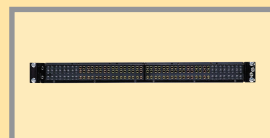
SIEMON MULTI-FLEX BLOCK



TELCO 66 TERMINAL BLOCK



ADC ICON PANEL



PATCH PANEL

SPECIFICATIONS

SYSTEM

Gain	0 dB, ± 0.2 dB, 20-20 kHz
Freq. Response	± 0.1 dB, 20-15 kHz $+0/-0.25$ dB, 20 kHz
Noise	< -91 dBu, 20 kHz bandwidth
Dynamic Range	> 118 dB
THD	< 0.05%, 20-20 kHz
IM (SMPTE)	< 0.05%
Crosstalk	< -70 dB, 20-20 kHz, adjacent inputs; < -100 dB; typical @ 1 kHz

SERIAL INTERFACE

Computer	RS-232, 19.2 kilobaud
External Unit	USI, User Serial IF RS-232, 9600 Baud
SAS Panels	RS-485, 76.8 kilobaud

AUDIO INPUTS

Input Impedance	>40 k ohms, balanced
Max. Input Level	+27 dBu
CMRR	Exceeds 70 dB, 20-20 kHz, -90 dB, typical 50/60 Hz

AUDIO OUTPUTS

Source Impedance	60 ohms
Max. Output Level	+27 dBu, 10 k ohm load +24 dBm, 600 ohm load

GENERAL

Power	95-260 VAC, $\pm 10\%$, 40 VA max.
Physical Size	3.5"H x 19"W x 16"D (each Frame)

Sierra Automated Systems reserves the right to change specifications without notice.



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