HARRIS

Radio Systems Products

Sage ENDEC

Alerting Systems

All EAS encoders/decoders are not created equal. The Sage ENDEC provides user friendly programming and operation through a computer interface with easy to use software, or directly from the front panel via four button ATM-style controls. The Sage ENDEC also features six assignable RS-232 ports for connections to character generators and computers. It also features three user-configurable relays that can activate optional buzzers, strobes and automation systems.

Features/Benefits

- Automatic RWT origination via closure or time of day.
- Event codes and expanded text messages are displayed on front panel display, hand held remote controller, or on a connected PC with optional software.
- Unauthorized access is prevented by password codes.
- Microphone and line inputs provide sources for audio messages.
- Three programmable relays provide control and switching.
- Two minutes of high quality (5kHz) audio are stored digitally.
- Operates over a wide range of temperatures, humidity and power line voltages.
- Operates in high RF fields found at AM, FM, and TV facilities.
- Decoder automatically resets if end of message code is not received.
- Operates in manual mode (requires operator action to initiate a program interrupt), semiautomatic mode (manual operation with automatic interrupt after time-out), or automatic mode (immediate program interrupt) with front panel LED indicating status.
- Continuously monitors up to six optional audio sources for EAS messages.

next level solutions

Features/Benefits Cont.

- Automatic delay of received audio by a few seconds to avoid loss of audio inherent in EAS daisy chain design.
- XLR connectors for main program audio pass-through and interrupt.
- Internal speaker routed through a back panel jumper so speaker can be muted by the station's audio console.

Sage ENDEC Multi-Station Relay Panel

As more and more radio stations become part of multiple operations under one roof, there exists a need to be able to use a single EAS ENDEC with more than one station. The ENDEC encoder/decoder has one stereo program line switching capability built in. The RP-2 multi-station relay panel (MSRP) makes it possible for three additional radio or television stations to be controlled from a single ENDEC. With the MSRP and optional RC-1 remote control, it is possible to originate or retransmit alerts on multiple stations sequentially or all at the same time.

Sage ENDEC Receiver

Sage ENDEC Receiver EAS requirements under Part 11 require stations to monitor a minimum of two sources for EAS messages. Monitoring will include other radio or television stations, other than NWS or various government agencies at the local, county, or state level. With these increased monitoring requirements, many broadcasters will want to purchase the companion multi-band EAS ENDEC receiver as part of their EAS system. Housed in a 19" one-rack unit package, the multi-band receiver allows for up to three plug in modules providing up to six individually controlled audio outputs.

Video Data Systems 800 Series

Video Data Systems 800 Series is the perfect display solution for television systems. Simple crawl insertion can be achieved attractively and economically.

EAS/NOAA emergency and weather information are all accessible via real-time non-volatile date/time display, 50ns font resolution, and a crawl line. Optional external events scheduler permits up to 99 events with an optional 12 TTL logic line general purpose interface.

With non-volatile, battery-backed page storage, Video Data Systems 800 Series enables automatic and unattended operation, as well as reliable operation around the clock in the best and worst of times.

ENDEC DJ

The Sage ENDEC's user interface was designed under the assumption that most stations would simply relay incoming alerts. The user interface was optimized to allow the operator to relay or not relay an alert using a small number of buttons. For most ENDEC users, this is the right model.

However, some stations find themselves in the role of emergency alert originators rather than a simple emergency alert relay point. If your station originates alerts, and especially if it originates alerts for many different counties, ENDEC DJ is for you.

ENDEC DJ is a Windows® based point and click PC software package for the ENDEC. All of the EAS parameters are on one screen. Only those counties which apply to your area appear. Sending an alert is a simple matter of clicking on the counties you want to send to, and selecting the proper event from the pull down list of events. Then press the ready button. It couldn't be simpler.

You can configure ENDEC DJ to use any of the ENDEC's audio inputs as the audio source, or you can select "console." In console mode, the ENDEC is in line only while sending headers and the end of message data tone, your regular audio path is restored for the audio portion of the alert. A large "talk" indication appears on the screen with a countdown of time remaining for the alert.

Features/Benefits

- Uses the Sage ENDEC, an FCC Certified EAS encoder/decoder.
- Allows access to all event codes and location codes. You can select a subset of the location codes to appear on the screen, as well as a pull down menu of ll location codes.
- Logs all incoming and outgoing events.

Required Hardware

- Sage EAS ENDEC.
- Windows 3.1 or Windows 95 compatible hardware.

ENDEC-PRO

The ENDEC-PRO system is designed for users who are at the front end of the emergncy reporting chain – State and County Emergency Operations Centers and other organizations that originate FCC Emergency Alert System (EAS) events. ENDEC-PRO uses a mouse-based point and click interface to select event types, locations, and stored audio from a scenario database. The resulting alert is entered into the EAS Web using the Sage ENDEC hardware.

Features/Benefits

- Allows access to hundreds of pre-stored event/location scenarios, or allows you to build an alert in real-time.
- Select audio from the pre-stored library, pre-record a message just before use, or provide audio in real-time.
- Originate weekly and monthly tests.
- Log all outgoing and incoming events.
- Practice mode generates alerts without keying the transmitter.
- Prevents unauthorized access with a password.
- Verify reception by monitoring the EAS Web.
- Uses plain text for events and location codes – knowledge of EAS coding not required.

Required Hardware

- Sage EAS ENDEC.
- Windows 3.1 or Windows 95 compatible hardware and sound card, speakers and microphone. Pentium or 486 class computer with 8MB memory is recommended.
- Radio transmitter or other audio path to the EAS Web.

Scenario Database: You can build a scenario database using the provided list of 31 event codes and 3,300 county names. You can also use local event and location names. Additionally, you can build a library of stored audio messages describing events, locations, and what action to take. These messages are then sent with the EAS alert data when a scenario is triggered. The number of scenarios and the amount of audio stored is limited only by the size of your hard drive.

About the ENDEC: The Sage ENDEC is the hardware used to encode EAS data. Selected for use by individual broadcasters, broadcast groups, and Federal, State and County emergency services, the ENDEC is the most versatile system on the market. Features include six alert inputs, two local audio inputs, six serial data inputs, internal audio storage and logging printer, as well as extensive remote control capabilities and the interface to the ENDEC-PRO software.

The EAS Web: All of the broadcasters in your area will be connected through an interlocking set of monitoring assignments called the EAS Web. You access the Web using a standard Sage ENDEC and a transmitter operating on a frequency coordinated in your area for EAS origination. The standard ENDEC allows for the manual or automatic relay of any alert that meets preset selection criteria. The standard ENDEC also allows for origination of alerts and the insertion of real-time audio.

The ENDEC-PRO software adds an additional level of automation to the basic ENDEC, allowing fast and easy generation of any alert type and any combination of locations. In addition, stored scenarios further reduce operator workload. For example, a scenario titled “radiation leak, Twin Lakes” could trigger a civil emergency message for counties X, Y, and Z, taking audio from a pre-stored “shelter in place” message.

ENDEC-PRO compatible hardware:

- Sage ENDEC, allowing six audio monitor sources.

Options include:

- Receiver – rack mount high performance AM, FM VHF, and UHF monitor receivers.
- LED sign. A large marquee-style sign for maximum visibility of incoming alerts.
- PC with 8MB memory, 800x600 VGA display, sound card and microphone.

Sage ENDEC Specifications

Data Protocols

AFSK 520.83 bits per second.
- Mark-2083.3 Hz
- Space-1562.5 Hz
- 7-bit ASCII code.

Attention tone 853 Hz and 956 Hz ±.5 Hz.
Compatible with NWS WRSAME coding.
Six Configurable RS-232 ports-1200/9600 baud.
Configurable character generated interface.

Mechanical

Monitoring and control inputs and outputs-pluggable barrier strips.
Main Audio-XLR pin 1 ground, pin 2+, pin 3-.
4 x 20 character back lit LCD display.
Four front panel status LEDs.
Operating temperatures 0-50 degrees C.
Dimensions 19" W x 6" D x 3.5"H.
Net weight-approximately four pounds.

Electrical

Insertion loss < .1 dB (main audio in to main audio out).
Cross talk > 91 dB (main audio in to main audio out).
Main audio frequency response 20 Hz-20 kHz ±.1
Input level sensitivity 10 mv-1 volt.

Stores and replays two minutes of audio @ 5 kHz frequency response.
AC power requirements 110-120 VAC 25 watts, 60 Hz (UI approved power supply) or 15 VDC @ 2 amps.
Meets all FCC EAS requirements of 47 CFR 11.
Three user programmable relays rated at:
- 1 amp 30 VDC,
- .5 amp 125 VDC,
- .3 amp 60 VDC.

Output levels:
- Main audio + 12 dBm.
- Speaker out 600 mw.

Optional Receiver: Tunable AM, FM NOAA/RPU receiver modules to fulfill EAS monitoring requirements:
- AM= 530 – 1710 kHz – 10 kHz steps.
- FM= 88 – 108 MHz – 10,000 kHz steps.
- VHF = 154 –184 MHz 12.5 or 5 kHz steps.
- UHF = 450 – 470 MHz 10 or 12.5 kHz steps.

Harris has a seamless digital interrupt unit optionally available to permit introduction of the Sage ENDEC into your digital bit stream.

Sage ENDEC Receiver

Sage ENDEC Multi-Station Relay Panel

Specifications subject to change without notice.

HARRIS
next level solutions

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