



THUNDER EAGLE, INC. Wireless Alerting Systems

AlertEagle® 400 EAS and SAME Decoder



The AlertEagle®400 (AE400) is a high performance, patented, diagnostic EAS/SAME decoder. The AE400 system includes the Weather Eagle 105 radio receiver and the AE400 decoder. This system translates EAS/SAME encoded messages from NOAA's National Weather Service into readable text and relays that text by LAN/WAN and Internet to printers, email and pagers. The system is designed in a modular fashion so that parts of the system can be added as your budget permits.

The AE400 is engineered for durability with modern surface-mount technology. The unit has special audio filters and amplifiers to provide the most reliable SAME/EAS decoding capabilities. The AE400 is especially useful for emergency operations centers, security offices, mobile communications vehicles, command posts, and search and rescue units. The firmware in the AE400 can be upgraded in the field using the optional programmer.

How the AE400 Decoder Works

The AE400 receives the EAS/SAME alert messages and decodes the alerts and translates them into text and compares them to a table of user-selected events and locations. If the event and location are a 'match,' a relay closes for a user-selected period of time and the radio is unmuted. Thunder Eagle Software makes it easy to program the AE400 for specific events and locations of your choosing.

The AE400 digitally saves the last text alert message and prepares it to be sent through your LAN/WAN and Internet for display on LED signboards and printers at remote locations. With the AirMessenger ASCii software and the FipsSender™ software alert emails are sent automatically.

The AE400 has a local time clock with battery back-up to date-and-time stamp each alert. The last event message is displayed on the AE400's LED screen.

The AE400 may be installed as a 'filter' to automatically place selected weather warnings and emergency alert messages on other communication systems, including public address systems, police, fire or public utility radio and trunked radio.

Activating the "All Call" switch permits the AE400 to receive all SAME/EAS alerts. This feature is useful when there is a sudden severe weather event and all alerts that are usually filtered need to be decoded or the AE400 is switched to a backup transmitter and the event and location codes on the new transmitter are not programmed into the AE400.

Diagnostic Features

The WE105 and AE400 have many patented diagnostic features that can provide you with positive feedback about the operation of the entire EAS/SAME system, including:

1. A real-time FSK Lock-Detect LED which indicates at a glance if there is audio on the channel, no audio on the channel, and when the NWS is transmitting and EAS/SAME message.
2. Automatic recording of the most recent audio alert for later playback like an answering machine.
3. LEDs on the WE105 and AE400 automatically inform the user of each step in the EAS/SAME alerting process.
4. A "Last Alert" button sends the most recent alert received out to the printer port for diagnostic purposes.
5. A "Reset" button mutes the speaker and opens the alert relay, turning off the system.
6. An Audio-In port enables the user to test the system with recorded .wav audio files of actual EAS/SAME tests.
7. The user can place the WE105/AE400 into diagnostic mode for full diagnostic details of each SAME burst, which is critical for troubleshooting.
8. If the AE400 cannot find a translation for the SAME/EAS alert code, it will place the incoming, non-translated code in the text message. This will enable the user to quickly know which code translations need to be added to the look-up table in the AE400.
9. Test audio EAS/SAME test messages can be input into the AE400 to test the system.