



THUNDER EAGLE, INC.

Wireless Alerting Systems

WeatherEagle®110 and AlertEagle®120 **NOAA Weather Radio Receiver and EAS/SAME Decoder**



Rugged, Reliable and Flexible

Thunder Eagle® combines the WeatherEagle®110 (WE110) commercial quality NOAA Weather Radio receiver with the AlertEagle®120 (AE120) Emergency Alert System (EAS) / Specific Area Message Decoder (SAME) to create a system that captures weather alerts, filtered by event and location, and easily interconnects the alerts messages to other communications systems. The WE110/AE120 is often used to place pre-selected weather warnings and emergency alert messages on other communication systems, including public address systems, police, fire, and public utility conventional and trunked radio systems.

The WE110 automatically changes channels to the strongest NWR signal to capture weather alerts from anywhere in the United States and Canada and also decodes the 1050 Hz alert tone issued by the National Weather Service (NWS) to designate severe weather alerts. The WE110 is designed with robust RF filters and shielding to reject other radio waves so the WE110 can successfully operate in moderately high RF environments.

The AE120 decoder is engineered for durability and reliability with special audio filters and amplifiers to provide the most reliable SAME/EAS decoding capabilities. The AE120 is especially useful for Emergency Operations Centers (EOCs), security offices, mobile communications vehicles, command posts, and search-and-rescue units.

Choose the Events and Locations You Need

Using the included Thunder Eagle software, user selected events and locations are 'matched' against the incoming SAME/EAS NWS alert messages. When an event and location match is detected, the unit is placed into alert mode for a user/software selected period of time between 1 second and 18 hours. The default alert period is 1 minute and 30

seconds. At the end of the alert period, the WE110 will mute and the relay will open. If the NWS End of Message signal is detected before this time period, the WE110 audio will immediately mute. If another alert is 'matched' while a first alert is active, the system will remain in alert mode for the duration of the new alert period.

AE120 Diagnostic Features

The WE110 and AE120 system has many diagnostic features that provide positive feedback about the operation of the entire EAS/SAME system, including:

1. A real-time FSK Lock-Detect LED. This patented diagnostic feature instantly informs the user when there is audio on the channel, no audio on the channel, and/or when the NWS is transmitting an EAS/SAME message.
2. The WE110 digitally records the most recent audio alert for later playback, like an answering machine.
3. LEDs on the WE110 and AE120 automatically inform the user of each step in the EAS/SAME decoding process including each FSK SAME/EAS burst, whether the event and location matched, or did not match, and whether the "End of Message" signal was decoded.
4. All of the details of the last alert are saved in non volatile memory, which will not be erased if the power is interrupted.
4. A "Last Alert" button sends the most recent alert received to the RS-232 printer port for diagnostic purposes.
5. A "Reset" button mutes the speaker and opens the alert relay.
6. An Audio-In port enables the user to test the system with recorded .wav audio files of actual EAS/SAME tests which are downloadable from Thunder Eagle's website.
7. The user can place the WE110/AE120 into diagnostic mode for full diagnostic details of each same burst, which is critical for advanced troubleshooting.
8. The text and EAS/SAME codes of the last alert, in ascii text format, are digitally stored in the AE120 unit for alert verification.
9. Pressing the Last Alert button while powering up the unit will output the entire match event and location file to verify that the unit is properly programmed.
10. A test button is provided which tests all of the operational functions of the AE120.
11. A 1050 Hz LED detects whether quality NOAA weather radio audio is being received by the WE110.
12. The WE110 is configured to receive an external antenna which is critical for reliable operation in many locations.
13. The WE110/AE120 comes standard in a 19" 1 RU high metal case with an internal speaker.
14. Muted and Unmuted audio outputs are provided for easy interconnection to other communications systems.
15. The WE110/AE120 can be connected to the Thunder Eagle® MRI-100 (multi-radio interface) for the placement of NOAA weather live and alert audio on other two-way conventional and trunked radio systems.

Revised 10/25/10