SAGE Endec Support Info

NEW Endecs are shipped with the Printer turned ***OFF*** in Menu (See Printer Problems) and need to be programmed with at least the minimum, **Call Sign, Local Area and Date/Time/UTC info.** (See **Quick Start** in the manual) Power cycle the Endec after programming to clear the flashing Automatic LED. Download the free **ENDECSET** Windows program to program the 1822 from a computer at the Harris Sage Support webpage, **www.broadcast.harris.com/support/sage**. (**Highly Recommended**)

THE ENDEC REBOOTS WHILE PROGRAMMING
The Endec has a built-in 'Watch Dog' timer, which reboots the Endec in case the system becomes stuck in a loop. The watchdog timer kicks in if the display hasn't returned to the 'Main Menu' after 2-3 minutes. If building or editing filters step through settings, Save and exit Menu to reset timer. Failure to Save or if the Endec timer reboots the Endec will result in loss of your work since the last Save. Set *MENU.CONFIG.MENU TIMEOUT* to at least 120 to ease programming.

THE ENDEC REBOOTS CONTINUOUSLY
The plug in 'wall wart' transformer may have developed excess ripple causing the Endec to reboot. When it is loaded with the Endec, test for AC voltage on the DC supply voltage. If the measured AC voltage exceeds 0.5 volts, there is too much ripple. *This test must be with the power supply under load. While the filter caps within the wall wart can be replaced, most people replace the supply entirely. A replacement supply, P/N SAGHDPWRSUPLY rated at 13.8Vdc @1.7A is available for $55.00 (price is subject to change). Call Parts Dept. **217-221-7500**.

THE AUTOMATIC LED IS FLASHING
A flashing Automatic LED is an error indication. To check the message buffer for Error Messages first, verify that the letters 'MSG' are in the lower right hand corner of the display when the unit is in the Main Menu mode. Press the button on the far right and use the down arrow button to scroll through the messages. The common Error Messages are listed below. After fixing the Error, power cycle the Endec 1822 to clear the flashing LED.

Error Message **NO LOCAL AREA DEFINED**- Enter your local area Go to *MENU.PRESETS.LOCAL AREA. NEW,* enter the state and/or counties in your local area. (Signal Area or Counties served) Please note that the Endec must then be re-booted to stop the LED from flashing.

Error Message **PRINTER JAM** Clear the paper jam and power cycle the Endec. If the message re-appears, the pico fuse may have blown. (See **PRINTER PROBLEMS** section below)

Error Message **TIME IS BAD** Date is **01/01/95**. Reset the time on the Endec by going to *MENU.DATE/TIME* then enter the correct *YEAR. MONTH. DAY. HOUR. MINUTE* and then reboot the box.

If the Endec will not hold the correct *DATE/TIME* information, the internal battery voltage may be too low. There is a coin battery holder located on the motherboard in the front left corner, if the battery has less than 2.8Vdc, the battery will need to be replaced. Replace with a Panasonic CR2330 or a compatible 3V lithium battery, and reset time as described above. Replacement batteries, P/N SAGBATTERY are available; please call Parts Dept. **217-221-7500**.

Error Message **ATTN XX or FAIL TEST Errors** These error messages usually mean that the Endec is damaged. In rare cases too high audio level on one or more Monitor Inputs can cause these messages. To check for this, power down, remove the green connector from the rear of the Endec and power-up. If the Endec passes self-test, check all the inputs for audio level. 0 db or just under is correct. If the Endec still fails Self-Test, Call Harris for a repair RA number. **217-221-7560**

ALL THE LEDs ARE FLASHING
All the LEDs flashing indicate an error that the EAN/EAT filter has been altered or deleted. Check the message log using the steps described under **THE AUTOMATIC LED IS FLASHING** and look for an error message, **EAN AND/OR EAT DO NOT APPEAR IN A FILTER.** Part, or all, of the EAN filter has been deleted and the filter must be rebuilt.
The default settings for this filter are:
ORIGINATORS: ***PRIMARY ENTRY POINT***
EVENTS: ***EMERGENCY ACTION NOTIFICATION & EMERGENCY ACTION TERMINATION***
LOCATIONS: ***ALL FIPS CODES***
PRIORITY: ***63***
SELECT ACTION: ***AUTOMATIC RELAY***
ATTN DURATION: ***8***
HOLD TIME: ***0*** but if the Action is Automatic Relay, hold time setting is disregarded.
NV LEAD IN: ***NO***

PRINTER PROBLEMS

The printer doesn't function at all
If the **Automatic LED is not flashing**, make sure the printer is turned on in software, the default as shipped is ***NO***
1. Go to *MENU.CONFIG.PRINTER*
2. Enter your password. If Printer is set to **Yes** or **NO,** continue to step 3.
3. Press ***YES,*** exit menu and power cycle the Endec. Printer should function, if not.
4. The sage motherboard drivers may be damaged. Call Harris for a repair RA number. **217-221-7560**
If the **Automatic LED is flashing**, the paper may be jammed. Clear the jam and power cycle the Endec. The printer should work after the Endec finishes self-test start-up. If not the printer fuse may be bad. (See below)

Verify that the fuse has not blown.
1. Check the DC voltage to the input of the 7805 U4 regulator on the printer just in front of the ribbon cable connecting the printer PCB to the Endec motherboard. The pin nearest the edge of the PCB is the input.
The correct voltage is approximately +15 - 16Vdc to chassis. Any reading under 5Vdc Means the fuse is bad.
2. The fuse is a ¾ amp **slow blow** pico fuse, located on the bottom of the printer board.

The printer acts like it is printing, but there is no text on the paper that is fed out.
1. The printer in the Sage Endec uses thermal paper, which is generally only treated on one side. Check to make sure the paper is designed for thermal printers and make sure it is loaded correctly. Paper should come off the bottom of the roll into the print-head.
2. Check the fuse on the printer as described above, to verify that the fuse hasn't gone high resistive. (Bad)

The print is very faint, prints illegibly, or prints text backwards and across the normal printed information.
1. Try increasing the contrast; adjust R14 on the printer PCB if the print is faint.
2. If the text prints half the line faintly, at a diagonal or jams letters at the right side. The printhead may need to be replaced. A new printhead, P/N SAGPRINTHEAD is available for $55.00 (Price is subject to change) Call Parts Dept **217-221-7500**.

Sage Endec not receiving some or any Alerts, or receiving but not forwarding Alerts

Not receiving Alerts:

If the Endec didn't receive the alert, do you have a catch-all filter "**Others**" or "**All**"? If not it is impossible to know if the Endec "saw" the alert or not. The Endec will not respond to alerts that do not match an Incoming Filter. Event, Originator and Location all must match for the Endec to "see" an Alert.

If the catch-all filter is set for **All Originators**, **All Events**, and Locations is set for either **All FIPS Codes** or your state/local area and you did not receive the Alert: You have a receive problem not an Incoming Filter programming problem. If the Endec did receive the alert but not forward it see page two.

Check settings:

1. **Menu-Config-Scan Select**, confirm that Scan Monitor Input is set to "**Yes**" for **all active inputs.**

2. **Check for Audio on Monitor Inputs**,

Menu to Monitor Source Enter - Mon 1 Enter.

Repeat for all active monitor inputs. If audio is bleeding between inputs:

1. A "cross" connection, IE: Plus Audio on an Audio Common will cause crosstalk between inputs also. If audio sounds distorted check the audio at the receiver first, then check levels on the monitor inputs. New installs or re-wires usually.
2. Check level on the monitor inputs.

Audio Level should be in a "window" -4 to 0 db. AC voltage 0.5 to 0.75 RMS, 1.5 to 2 VPP, adjust the level at Audio Source if not correct.

This should either fix the problem or confirm a hardware problem, blown input etc.

If audio sounds clear & clean, check audio input levels at the Endec. (Monitor In to Audio Common)

Audio Level should be in a "window" -4 to 0 db. AC voltage 0.5 to 0.75 RMS, 1.5 to 2 VPP.

If you cannot hear any audio,

1. Check the speaker level, Menu to Levels enter Levels, Enter Speaker then your admin password. Look above the word MAX to see the level number, 15 to 25 should be loud enough.

2. Confirm that a jumper between Speaker Out and Speaker In is made on the green connector on the rear of the Endec. Now check the audio level between Monitor Input and Audio Common.

Audio Level should be in a "window" -4 to 0 db. AC voltage 0.5 to 0.75 RMS, 1.5 to 2 VPP.

This should either fix the problem or confirm a hardware problem, blown input etc.

The Endec power-up Self Test will show most input problems.

Low level Alert audio recording**,** The Endec has no Input audio level adjustment. If you have increased the outgoing ATTN/Data tones the recorded audio will sound weak. Set the Audio level on the receiver to 0db at the Endec Monitor Input. Do not exceed +2db or you may miss alerts.

Received the Alert but did not forward it.

The Sage Alert print-out will have information that will help determine why the Alert did not forward. Scan the printout for the information noted below.

Alert Ignored time expired. This message can indicate several issues

a. The Originating EAS equipment's date/time is not correctly set.

b. Your Endec's date/time is not correctly set. This data includes the time zone or UTC setting, 5 for ET, 6 for CT, 7 for MT and 8 for PT. Check your settings.

c. The Alert's valid time was not correctly programmed by the Originator.

All these issues can be avoided by setting the Endec's **Strict Time** setting to **NO**.

Alert Ignored Already Heard. This message indicates the Endec has already heard and handled the Alert, either by logging or forwarding the Alert. Most often seen as the second received RMT. Note that the Monitor Input will be different that the original received Alert.

A partial print-out of an Alert being forwarded followed immediately by a System Start-up message or repeated partial System Start-up message. This indicates that the Endec's plug-in DC power supply may be bad, too much ripple under load.

At least three data fields must match for the Alert to match an Incoming Filter. The **Alert or Event**, the **Originator** and **Location**, **Valid Time** is the fourth field if **Strict Time** is set to ***Yes***.

The print-out will list what **Monitor Input, Originator, Alert** and **Incoming Filter** the Alert matched. If the Alert matched the correct Incoming Filter then the **Action** in that filter is incorrect and the filter needs to be Edited to fix the problem. By the default programming only two Alerts will be forwarded by the Endec, the EAN and RMT. Either of these two Alerts or Events have their own Incoming Filters. The four default Incoming Filters and their default Action are listed below.

1. The **Required EAN** Incoming Filter is the Emergency Action Notification, this must be forwarded immediately and this Filter is already programmed into the Endec and will work correctly once you have added your Call Letters, Local Area and date/time info to the Settings file. *Broadcast or Cable*, *Civil Authorities* or *NWS* should never be added as Valid Originators, **please do not Edit this Filter**.
2. The **Required RMT** Incoming Filter is the Monthly Test, this must be forwarded within one hour and this Filter is already programmed into the Endec and will work correctly once you have added your Call Letters, Local Area and date/time info to the Settings file. The default two valid Originators are Civil Authorities and Broadcast or Cable, if the National Weather Service (**NWS**) ever Originates the RMT you need to Edit the Filter and add them to the Originators field.
3. The Incoming **Required RWT** or Weekly Test will be logged as received and will not forward.
4. The **Others** Filter; all other Alerts will be received by default to match the Incoming Filter named **"Others".** This filter by default will not forward any matching Alert without Operator intervention.

Custom Filters:

An Example of a Custom Incoming Filter is below.

Any Incoming Filters you build should be built be for Action and Location, **not** Event or Originator.

I.E. A custom Incoming Filter named **Warnings**.

Filter name: **Warnings**

Originators: **All Originators**

Events: **As many Alerts as you want, as long as the Action and Locations are the same.** Immediate Evacuation, Tornado Warning, Shelter In Place, Hurricane Warning etc.

Adding Locations: Your Station's signal area counties or **Local Area** if you have your signal area is programmed into the Local Area field.

Priority: High, **59** will work.

Action: Either **Automatic Relay** or **Timed Relay,** your option.

ATTN Tone: **8** as in seconds of attention tone.

Hold Time: In minutes for Timed Relay or Timed Ignore Actions only.

NV Lead-In: **NO,** an option most Broadcast people don't have. Cable Companies please contact **Mega Hertz @ 1-800-525-8386** for programming instructions.

Crawl Only: **NO,** A TV or Cable option that should not be used for this type Filter.

SaveWarnings: **Save** or **Save Filter**

These Filter settings will forward any Alerts that match these settings without an operator having to intervene.

To Edit an Incoming filter via the front panel:

If the Alert matched a custom filter, edit that filter for correct **Action** to see why the alert did not forward. To Edit an Incoming Filter via the front panel;

Enter *Menu*, page down to *Presets*, Enter, enter your Admin Password if prompted, and then push the button under *Edit* on the display. The first Incoming Filter will be displayed, push the *Next* button until the correct Filter is displayed, then push *Edit*. *Originators* will be the first field, push *PREV* to see the first originator, repeat to see any other entrees, Press *Done*. *Events,* push *PREV* to see the first Alert, push *PREV* repeatedly to see any other entrees, Press *Done*. *Locations,* push *PREV* to see the first Location, repeat to see any other entrees, Press *Done*. *Priority* is the next field, 59 is generally OK for this field, Press *Done. **Select Action**,* Automatic Relay or Timed Relay for the Endec to Forward the Alert. No other action will forward the Alert without operator intervention, Press *Pick. Attn Duration* set to 8 for eight seconds for Warnings, Press *Done. Hold Time* is in minutes, time the Alert is held before being forwarded or logged, Press *Done. NV Lead-in, Press NO,* (for Endecs with NV audio option installed) *Crawl Only,* set to *No* for audio portion of Alert to be sent. (TV only) *Save,* (filter) Press *Save.*

Please call if you need any help,

Harris Sage Support

Phone 217-221-7560