

THE FIRE ALARM EXPERT

EST3 EVAC & ALERT AMPLIFIER RULE

QUICK-REFERENCE CHEAT SHEET

Edwards EST3 | SDU Rule Architect | Audio Zone Programming
For Fire Alarm Technicians — EST3 Series | The Fire Alarm Expert

SECTION 1 — QUICK REFERENCE SUMMARY

Concept	One-Sentence Summary
EVAC Amplifier Rule	Turns on the evacuation audio signal in the alarm zone when an alarm input activates.
Alert Amplifier Rule	Turns on the warning audio signal in adjacent zones when the same alarm input activates.
Rule Structure	[Label] Input_Event Address: Output_Command Address; — input left of colon, output right, end with semicolon.
Input Event	Alarm — fires the rule when the designated zone group or device goes into fire alarm state.
Output Command	On — turns the specified amplifier point on. Multiple outputs separated by commas in one rule.
EVAC vs. Alert	EVAC = alarm zone (evacuate NOW). Alert = adjacent zones (prepare to evacuate). Never combined.
Multiple Adjacent Zones	Add multiple output commands in one Alert rule, separated by commas — all fire simultaneously.
SDU Rule Architect	The programming interface in the System Definition Utility where all EST3 rules are written and managed.
Semicolon Rule	Every rule MUST end with a semicolon. Missing semicolon = rule won't compile. No exceptions.
SDU Objects Report	Printout listing every device, amplifier, and circuit address in the system — verify all addresses here before writing rules.

SECTION 2 — SELF-ASSESSMENT CHECKLIST

Before signing off on any EST3 audio system build, verify all of the following:

☐	I have obtained and reviewed the SDU Objects Report before writing any rules
☐	I can identify the EVAC amplifier point address for each alarm zone in this system
☐	I can identify the Alert amplifier point address for each adjacent zone in this system
☐	My EVAC rule input address matches the correct zone group or input device — not a different zone
☐	My Alert rule output addresses include ALL adjacent zones that require Alert signaling
☐	Every rule I wrote ends with a semicolon

☐	I have confirmed no EVAC and Alert amplifier addresses are swapped in any rule
☐	I have downloaded the completed database to the panel before testing
☐	I have put the system in test mode using the correct service group
☐	I physically walked to the alarm zone and confirmed EVAC signal is sounding
☐	I physically walked to all adjacent zones and confirmed Alert signal is sounding
☐	I have canceled test mode after testing — Test LED is off
☐	I have documented all rule addresses and test results on the service work order

SECTION 3 — STEP-BY-STEP: BUILDING THE EVAC & ALERT RULE IN THE SDU

EVAC Rule Syntax:

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[Floor_EVAC] Alarm INPUT_ADDRESS: On EVAC_AMP_ADDRESS;
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Alert Rule Syntax (Multiple Adjacent Zones):

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[Floor_ALERT] Alarm INPUT_ADDRESS: On ALERT_AMP1, On ALERT_AMP2;
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1	Open SDU Rule Architect	Navigate to Rule Architect in the System Definition Utility. Confirm you are editing the correct system database file.
2	Pull the SDU Objects Report	Print or display the Objects Report. Identify and write down: (a) the zone group or input device address, (b) the EVAC amplifier address for the alarm zone, (c) the Alert amplifier address(es) for all adjacent zones.
3	Write the EVAC Rule	Label the rule (e.g., [Floor3_EVAC]). Set input event: Alarm. Set input address: your zone group or device address. Set output command: On + EVAC amplifier address. End with semicolon.
4	Write the Alert Rule	Label the rule (e.g., [Floor3_ALERT]). Set input event: Alarm — same as EVAC. Set input address: same zone group or device. Set output command: On + ALERT amplifier address(es). Multiple outputs separated by commas. End with semicolon.
5	Verify both rules	Review the completed rules side by side. Confirm input addresses match. Confirm EVAC output points to alarm zone amp. Confirm Alert output(s) point to adjacent zone amp(s).
6	Download the database	Download the updated database to the panel. Confirm download completes without errors.
7	Test in service mode	Put the service group into test mode. Activate the alarm input device. Walk to alarm zone — EVAC must be sounding. Walk to adjacent zones — Alert must be sounding. Cancel test mode when complete.

SECTION 4 — EVAC VS. ALERT RULE COMPARISON

EVAC Rule	Alert Rule
Purpose: Evacuate the alarm zone	Purpose: Warn adjacent/surrounding zones
Output: EVAC amplifier point for alarm zone	Output: Alert amplifier point(s) for adjacent zones

Signal: Evacuation tone or pre-recorded evacuation message	Signal: Alert tone or pre-recorded standby message
Input: Same alarm event — the triggering device or zone group	Input: Same alarm event — identical input address as EVAC rule
One output per rule (one EVAC amp per zone)	Can have multiple outputs in one rule (comma-separated)
Both rules fire SIMULTANEOUSLY when the input activates	Both rules fire SIMULTANEOUSLY when the input activates
If wrong: Alarm zone hears Alert instead of EVAC	If wrong: Adjacent zones hear EVAC instead of Alert

SECTION 5 — COMMON MISTAKES & HOW TO AVOID THEM

Mistake	How to Avoid It
EVAC and Alert amplifier addresses swapped in rules	Pull SDU Objects Report first. Label your notes clearly before typing any rule. Double-check output address against the report before saving.
Missing semicolon at end of rule	Put the semicolon at the END before filling in the rule. Make it a habit to end first, fill in the middle.
Using individual device address instead of zone group address	Check the SDU to see whether the zone is programmed as a zone group. If it is, the rule must reference the group address, not a single device address within it.
Multiple adjacent zones — missing one Alert output	List all adjacent zones on paper before writing the rule. Compare your completed rule outputs against the list before downloading.
Not testing after download	Download without testing is signing off blind. Always test — EVAC in alarm zone, Alert in adjacent zones. Walk the zones yourself.
Forgetting to cancel test mode	Add 'Cancel Test Mode' to your standard sign-off checklist. Verify the TEST LED is off before leaving the site.

SECTION 6 — PRO TIPS FROM THE FIELD

★ TIP 1	Print the SDU Objects Report and keep it with you while writing rules. Never write a rule from memory — addresses must be verified from the report every time.
★ TIP 2	Write all your rules in a text document first, then copy them into the SDU Rule Architect. This lets you review the full logic before downloading anything to the panel.
★ TIP 3	Use descriptive rule labels — [Floor3_EVAC_ZG] is more useful than [Rule1]. Labels don't affect logic but they save hours when troubleshooting a 300-rule program six months later.
★ TIP 4	If you have 10 floors with identical EVAC/Alert logic, use wildcard addressing (*) in the input address to write fewer rules — but verify the wildcard scope won't accidentally capture devices from other zones.
★ TIP 5	After testing, run a History Report from the 3-LCD display and confirm the test activations logged correctly. This also serves as documentation for your work order.

SECTION 7 — CODE & STANDARDS REFERENCE

Standard / Reference	Relevance to This Topic
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NFPA 72 — National Fire Alarm and Signaling Code	Defines requirements for emergency voice/alarm communications systems (EVACS). Section 24 covers audible and visible notification.
NFPA 72 Section 24.4 — Occupant Notification	Establishes requirements for zone-selective evacuation signaling — which zones receive evacuation signal vs. alert signal in a staged evacuation system.
NFPA 72 Section 24.4.1 — Zones of Notification	Requires that notification appliance circuits (including audio amplifiers) be arranged to selectively notify occupants per the evacuation plan.
IBC (International Building Code) — High-Rise Requirements	High-rise buildings typically require staged evacuation — EVAC on alarm floor plus two floors above/below, Alert on remaining floors. Verify with AHJ.
Local AHJ Requirements	Always verify staged evacuation signaling requirements with the Authority Having Jurisdiction before programming. Requirements vary by jurisdiction, building type, and occupancy.
Edwards EST3 System Operation Manual (P/N 270382)	Covers 3-ASU EVAC/Alert switch operation and how the audio output system interfaces with the panel programming.
Edwards SDU Online Help (P/N 180653)	Full reference for Rule Architect syntax, input events, output commands, and programming validation.

GET THE FULL VIDEO + EST3 TRAINING RESOURCES

Resource	Where to Find It
 Full EST3 EVAC & Alert Rule Walkthrough Video	YouTube: The Fire Alarm Expert — link in video description
 EST3 Rule Architect Live Training (Fridays 7PM EST)	[INSERT SKOOL COMMUNITY LINK]
 Free EST3 Cheat Sheet Download	[INSERT DOWNLOAD LINK]
 EST3 Series Playlist	YouTube: The Fire Alarm Expert — EST3 Series playlist
 Fire Alarm Business Blueprint	[INSERT BLUEPRINT LINK]