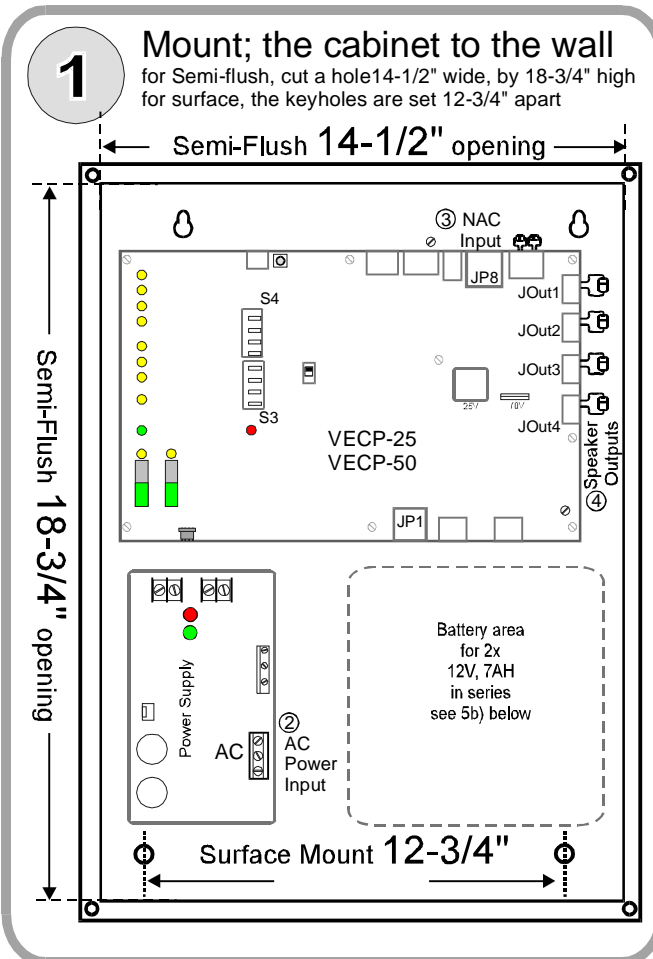# VECP-25/50 Step Installation-Wiring Diagram

Do NOT change settings or jumpers until system is operational,
the VECP is fully tested and will work out-of-the-box.
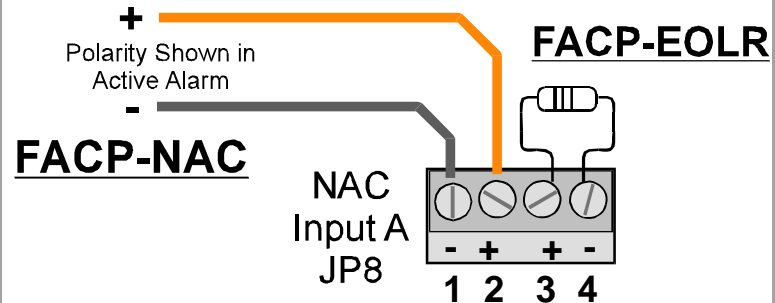**Read the manual for complete detailed installation instructions**
See 'Final-Setup' section to change system configuration.

1 — Mount; the cabinet to the wall

for Semi-flush, cut a hole14-1/2" wide, by 18-3/4" high for surface, the keyholes are set 12-3/4" apart

Semi-Flush 14-1/2" opening

③ NAC Input
JP8
JOut1
JOut2
JOut3
S4
S3
VECP-25
VECP-50
JOut4
JP1
Speaker Outputs ④

Semi-Flush 18-3/4" opening

Power Supply
AC
② AC Power Input

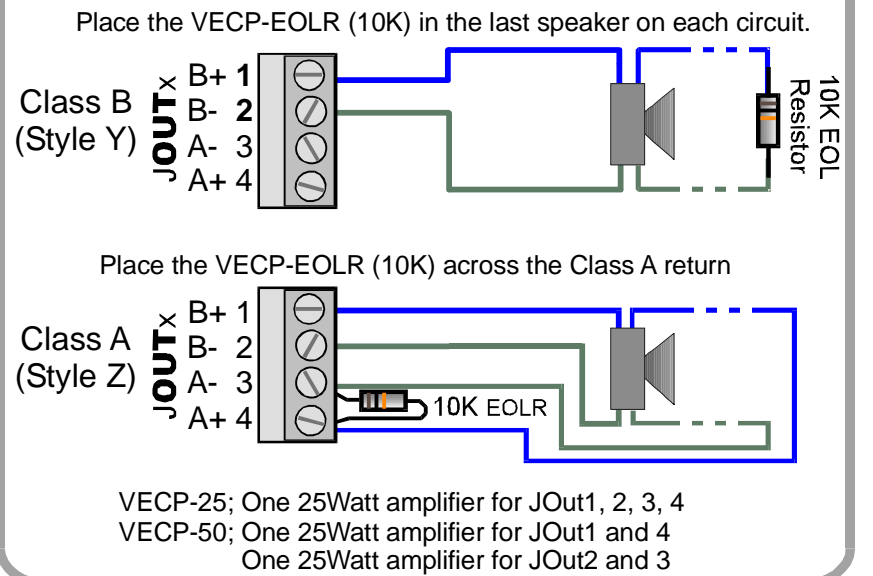Battery area for 2x 12V, 7AH in series see 5b) below

Surface Mount 12-3/4"

2 — Connect; AC Power

Attach the 120VAC line to 3 position terminal block
Use a seperate knockout, and route 120VAC wiring at least 1/4" away from all power limited wiring.

N
G
L

Neutral
Ground
Hot (Line)
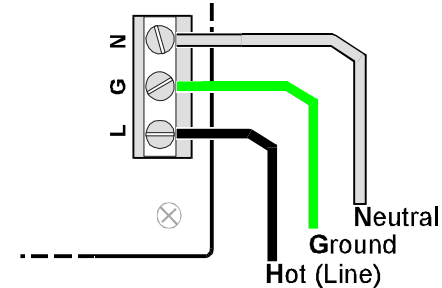
3 — Connect; NAC Circuit (JP8)

from the FACP or Addressable control module.
Trigger must be a <u>polarity reversing</u>, <u>supervised</u>, <u>non-coded</u>, <u>steady</u>, and <u>silencable</u> output to the VECP.

+
Polarity Shown in Active Alarm

FACP-EOLR

FACP-NAC

NAC Input A JP8
- + + +
1 2 3 4

4 — Connect; Speaker Circuits (JOUTx)

to the appropriate OUT connectors

Place the VECP-EOLR (10K) in the last speaker on each circuit.

Class B (Style Y)
JOUTx
B+ 1
B- 2
A- 3
A+ 4

10K EOL Resistor

Place the VECP-EOLR (10K) across the Class A return

Class A (Style Z)
JOUTx
B+ 1
B- 2
A- 3
A+ 4

10K EOLR

VECP-25; One 25Watt amplifier for JOut1, 2, 3, 4
VECP-50; One 25Watt amplifier for JOut1 and 4
One 25Watt amplifier for JOut2 and 3

5

a) Apply; 120 VAC Power

The Red and Green power LEDs on the power supply should light

DC ● (red)
AC ● (green)

and the Green Power and Yellow System Fault LEDs on the VECP pcb should light

○ System FLT (yellow)
● Pcwer (green)
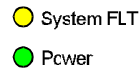
b) Connect; 2 x 12V, 7AH batteries in series,

using the supplied jumper

<u>Red wire to the positive</u> battery lead
<u>Black wire to the negative</u> lead

Black
Red
Jumper
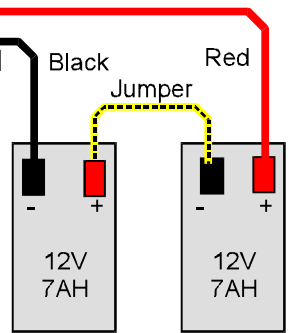
The Yellow LED should go out And the Signal Meter(s) should now have about 5 bars lit This could take a few seconds to respond

12V 7AH
12V 7AH

6 — System Test

Press; PTT on Mic
The Red 'Alarm' LED will light and the Signal Meter Bar(s) should go off, The Meter(s) should then vary up and down with the level of your voice. Upon releasing the PTT, the Meter Bar(s) should go back to the middle.
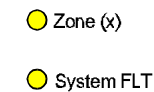
PTT
● Alarm (red)
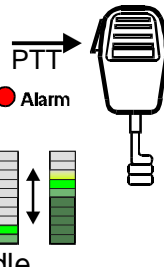
Move; Test Switch
down to the 'Test' position, verify Alert tone, and Evac-message. The Meter Bar(s) will again vary with the audio intensity.
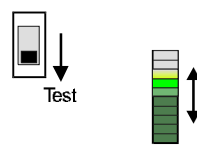
Test

Press; PTT on Mic
to verify the Local Audio 'override' function. Un-key the mic and move the Test switch back up to normal.

Normal
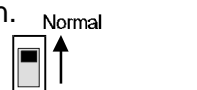
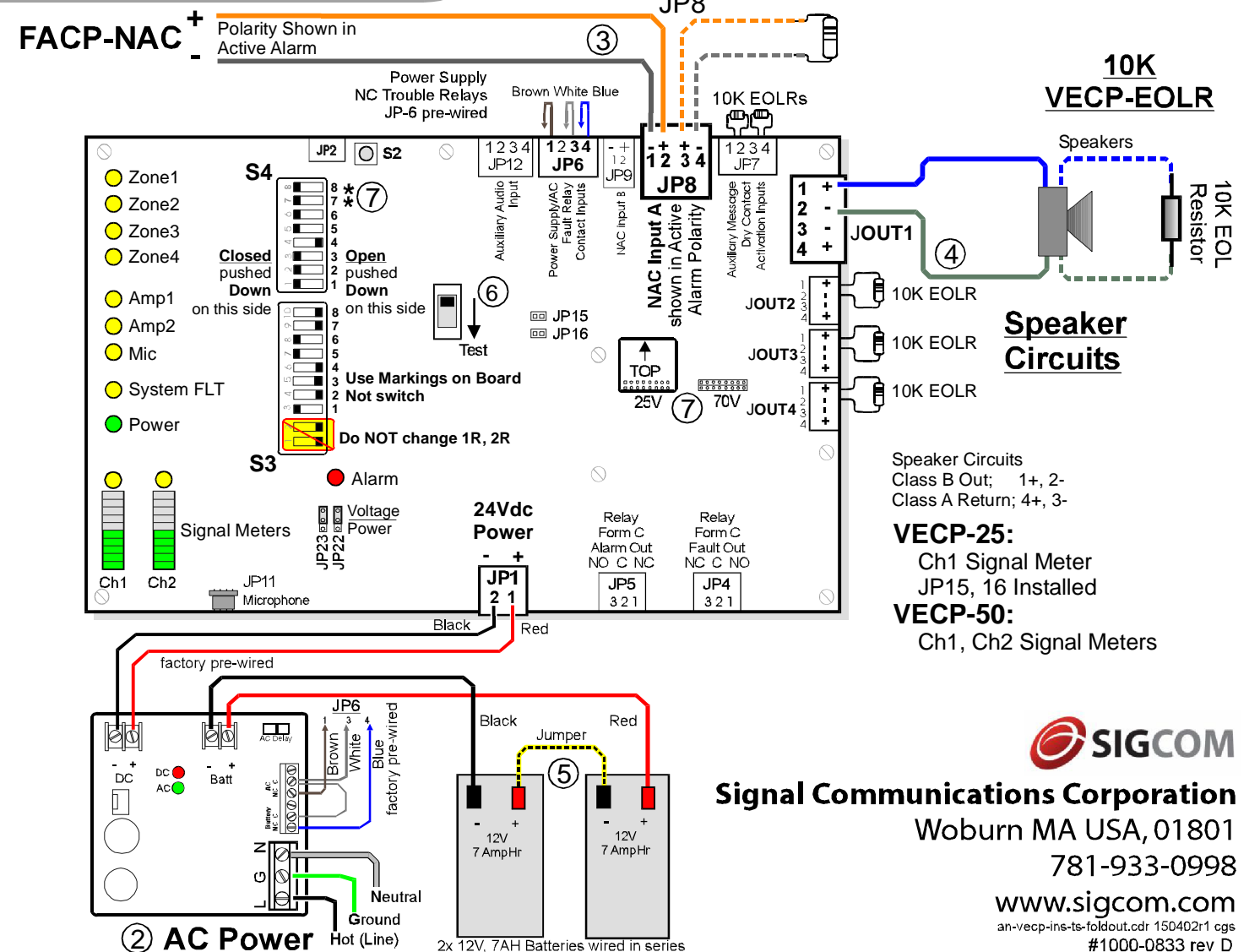**Test; Supervision**
by removing a speaker connection and verify that the Faults are indicated on the VECP and are reported to the FACP.

○ Zone (x) (yellow)
○ System FLT (yellow)

7 — Final Setup

Speaker Voltage Selection;
If and ONLY IF the system is using 70-VRMS Speakers, move JP24, 25, 26, 27 and the jumper board from 25V to 70V.

Tone Selection;
The 'Temporal Code' is selected by changing S4-7* and S4-8* to OPEN (pushed down on the right). Initial and intermediate tones can be varied and set according to the chart in the manual

---

NAC Input A JP8
FACP-EOLR

FACP-NAC +
Polarity Shown in Active Alarm
③

10K VECP-EOLR

Power Supply NC Trouble Relays JP-6 pre-wired
Brown White Blue
10K EOLRs

JP2   S2
JP12   JP6   JP9   JP8   JP7

○ Zone1
○ Zone2
○ Zone3
○ Zone4
○ Amp1
○ Amp2
○ Mic
○ System FLT
● Power

S4
8 ★
7 ★ ⑦
6
5
4
3
2
1
Closed pushed **Down** on this side
Open pushed **Down** on this side

Auxiliary Audio Input
Power Supply/AC Fault Relay Contact Inputs
NAC Input B
NAC Input A shown in Active Alarm Polarity

⑥ Test
JP15
JP16
TOP
25V
⑦
70V

S3
● Alarm
Do NOT change 1R, 2R
Use Markings on Board Not switch

Signal Meters
JP23 JP22 Voltage Power
Ch1 Ch2
JP11 Microphone

24Vdc Power
JP1
2 1
Black   Red

Relay Form C Alarm Out
NO C NC
JP5
3 2 1

Relay Form C Fault Out
NC C NO
JP4
3 2 1

1 +
2 -
JOUT1
3 -
4 +

JOUT2 10K EOLR
JOUT3 10K EOLR
JOUT4 10K EOLR

Speakers
10K EOL Resistor
④
Speaker Circuits

Speaker Circuits
Class B Out;   1+, 2-
Class A Return; 4+, 3-

VECP-25:
Ch1 Signal Meter
JP15, 16 Installed
VECP-50:
Ch1, Ch2 Signal Meters

factory pre-wired

JP6
- +   - +
DC   Batt
DC ●
AC ●

Brown White Blue factory pre-wired

Black   Red
Jumper
⑤
12V 7 AmpHr
12V 7 AmpHr

N
G
L
Neutral
Ground
Hot (Line)

② **AC Power**

2x 12V, 7AH Batteries wired in series

SIGCOM
Signal Communications Corporation
Woburn MA USA, 01801
781-933-0998
www.sigcom.com
an-vecp-ins-ts-foldout.cdr 150402r1 cgs
#1000-0833 rev D

VECP-25/50 Trouble Shooting Guide

For installation, read the other side first
Read this side, Because you DID
change settings or jumpers before system was operational
Or, someone has come in after installation and tried to 'fix' the system
Read the manual (RTFM) for complete detailed installation instructions

This is not a comprehensive trouble shooting procedure,
rather it is a quick guide in response to some typical questions asked to Applications Engineering
Most troubles or Faults will turn on the yellow System FLT fault LED.
With the System Fault light on, observe the other Fault lights to determine the problem.
This guide will look at more insidious hidden faults.
If the problem is beyond this guide, or the determination is to repair the board,
contact Customer Service or Applications Engineering for further guidance

A
System Fault Light ○ (yellow)
and Power Light On ○ (green)
No Signal Level / Meter Bars lit

The Signal Meter(s)
should have about 1/2 scale in the standby condition.

If they are Off, a power supply fault condition may be detected, Verify AC power.

* Check to see if the two batteries are connected and that they are in series (24V). Verify that there is good voltage balance, 12volts nominally each.

* Check the connections from the Power Supply Trouble relays to the JP6 of the main board.

* Temporarily short both the connections of JP6 pins 1 to 2, and 3 to 4, could restore the meter bar indication.
 * * If shorting the JP6 connections does restore the board, then check the power supply and connections for proper operation.
 * * If the JP6 shorts do not restore the board, then there could be an onboard issue. Contact Customer Service or Tech Support for further guidance

B
System Fault Light On ○ (yellow)
and Power Light On ○ (green)
No other fault lights or indications

The Signal Meter(s) should have about 1/2 scale in the standby condition.

If the only apparent indication of a fault condition is the System Fault light lit.

* Check the connections on JP7, in the upper right corner of the main board. There should be two 10K resistors. One across JP7 pins 1 and 2, another across pins 3 and 4. Verify placement and that they are secured into the connector.

* Completely remove the screw, in the upper right hand corner that holds the main pc board onto the back plate. Then slightly lift the corner of board off the standoff in the box. This will disconnect the 'Ground-Fault detection' from the chassis ground.
 * * If the System Fault light goes out, then there is a ground fault somewhere in the system.
 * * If the lights stays on, the problem could be more than this quick guide can direct. Contact Customer Service or Tech Support for further guidance.

C
Amp Fault Light ○ (yellow)
System Fault Light ○ (yellow)
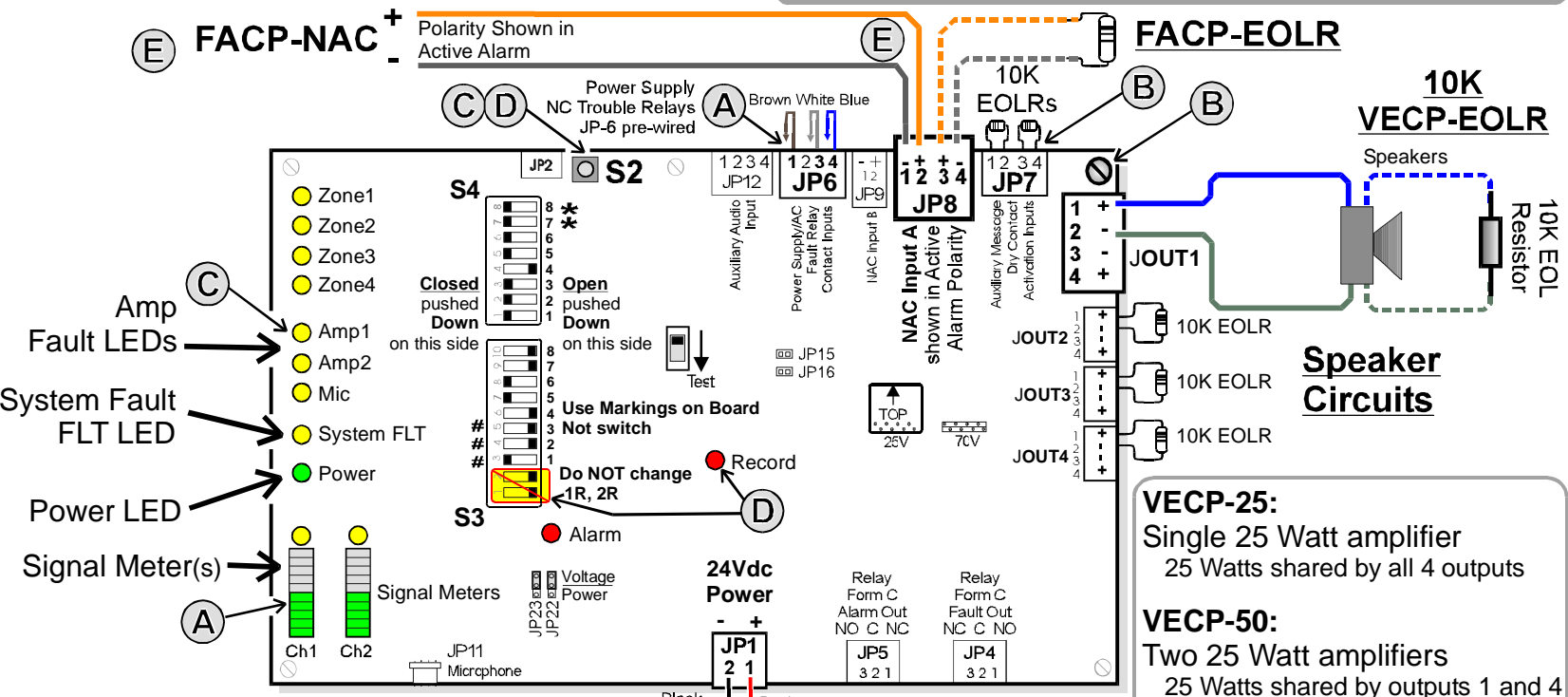and Power Light on ○ (green)

The AMP1 and or AMP2 fault lights come on when an overload of the audio amplifier(s) occurs.
Normally, if a temporary overload occurs, the amplifier will reduce the output power in a smart overload protection scheme.
A longer term overload, could open an individual solid state output fuse, which will reset automatically after the load is reduced or removed for a minute or two.

* A large overload, or an amplifier failure could turn on the AMP fault lights. To test if this was transient, press and release the S2 push button near the top edge of the main board. This will do a system reset.
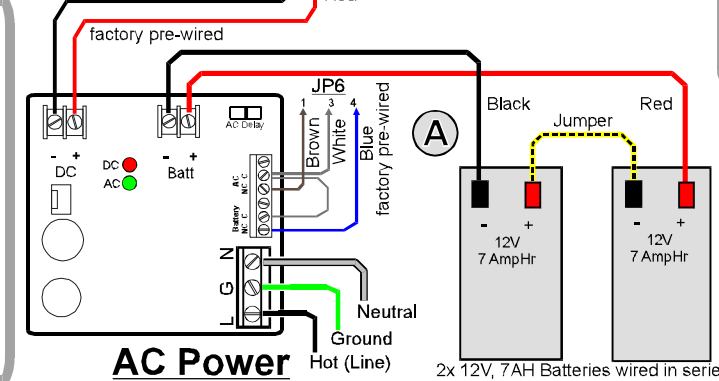
 * * If then system resets back to normal, then the overload was quick, and the amplifiers are OK.

 * * If the AMP fault lights come back after the reset, then the audio outputs could be damaged. Contact Customer Service or Tech Support for further guidance.

D
Record Light On ● (red)
The Record light should not be on, ever.
This is not a field or installer function.
If the light is on, then there is some board issue such as one of the S3 REC switches has be set or misset.

* Verify that both of the bottom switches on S3 marked REC are pushed down on the right side. These should be covered with tape or sealant and not changed.
* Press and release the S2 button on the top edge of the board. This will reset the system and could shut off the Record LED.

If neither of these turn off the light, contact Customer Service or Tech Support for further guidance.

Audio Output Level:
There is no 'Volume Control' on the system. To raise the audio output level in any area, the 'taps' on the speakers must be changed. Confirm the new tap settings will not exceed output ratings.

Setting Temporal:
Change S4-7* and S4-8* Down on Right   (Marked *)

Setting Continuous Repeats of Message:
Verify or change S3-1#, 2# and 3# Down on Left (Marked #)

Strobe Power:
The VECP does NOT supply any strobe power. Although it is not recommended, up to 3Amps of strobe power from the FACP-NAC can pass through the JP8 NAC connector, to the strobes and FACP-EOLR. Strobe synchronization must be *After* the VECP JP8.

E Tone but no message
If the VECP is playing the alert Tone when tripped, but does not start the message. It could be interrupted by a non-steady trip voltage. The NAC Input on JP8 must be a Steady signal, non-coded with no Sync pulses.

FACP-NAC
Polarity Shown in Active Alarm

FACP-EOLR
10K EOLRs

10K VECP-EOLR
Speakers
10K EOL Resistor

Power Supply NC Trouble Relays JP-6 pre-wired
Brown White Blue

Amp Fault LEDs
System Fault FLT LED
Power LED
Signal Meter(s)

Zone1 Zone2 Zone3 Zone4
Amp1 Amp2 Mic
System FLT
Power

Closed pushed Down on this side
Open pushed Down on this side

Use Markings on Board
Not switch

Do NOT change
1R, 2R

Record
Alarm

Ch1 Ch2 Signal Meters

Speaker Circuits
JOUT1 JOUT2 JOUT3 JOUT4
10K EOLR

VECP-25:
Single 25 Watt amplifier
25 Watts shared by all 4 outputs

VECP-50:
Two 25 Watt amplifiers
25 Watts shared by outputs 1 and 4
25 Watts shared by outputs 2 and 3
25 Watts maximum from any output

24Vdc Power
JP1

AC Power
Neutral Ground Hot (Line)
factory pre-wired
12V 7 AmpHr   12V 7 AmpHr
2x 12V, 7AH Batteries wired in series

SIGCOM
Signal Communications Corporation
Woburn MA USA, 01801
781-933-0998 sigcom.com

an-vecp-ins-ts-foldout.cdr 150402r1 cgs
#1000-0833 rev D