



# Upgrade Procedure V-Room® Practice to VAE® Practice

These instructions cover the installation of Wenger's VAE® (Virtual Acoustic Environments) electronics package in previously installed V-Room® "Practice" installations where the existing speakers and microphones will be utilized for the VAE installation.

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## **Required Tools**

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The following tools are required for installation:

- Cordless Drill
- Phillips Drive Bit
- Phillips Screwdriver
- Blind Rivet Tool
- 1/8" Drill Bit
- RH and LH Metal Shears

## **Black Box Removal**

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"Black box" is the term used throughout this manual to describe the assembled black electronics rack containing the VAE processor and related cables and components.

1. Remove power to the black boxes by turning off the "System" switch in the V-Room Power Panel. Disconnect the power cable that connects the black boxes at the back of the Power Panel.
2. Disconnect the four speaker cables running from the room's corner panels at the black box only. (These cables will be reused with the VAE system.)
3. Disconnect the two microphone cables from the black box **and** the top of the microphone panels and discard.
4. Disconnect the remote control cable from the black box **and** the top of the power panel and discard.
5. Disconnect any cables interconnecting the two black boxes and remove them individually from the installation.

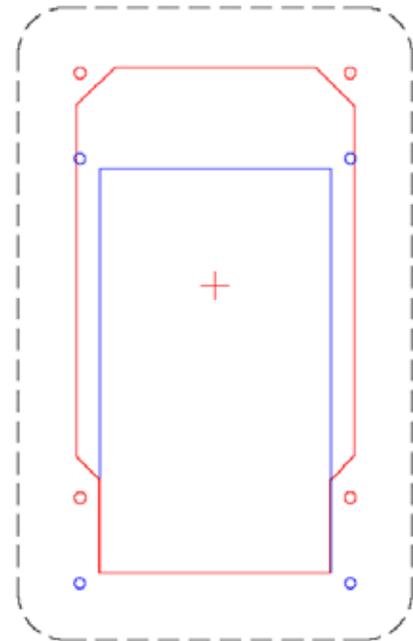
## Control Panel Replacement

1. Remove the old Control Panel from the inside surface of the power panel by removing the decal and drilling out the rivets in the four corners to reveal the control panel access hole. Disconnect the Control Panel from the electrical cable and discard. The cable will be used to fish the new control cable up through the panel.
2. Remove the 4" wide strip of insulation found directly behind the cover plate that runs from the switch electrical box up about 2 feet. Locate the control cable inside the panel.
3. To accommodate the VAE control panel, the smaller rectangular opening must be enlarged to this new shape. When enlarging the opening, it is important that the bottom edge of both the old and new shapes be in the same place.

The blue shape is the access hole used with older V-Room Practice systems.

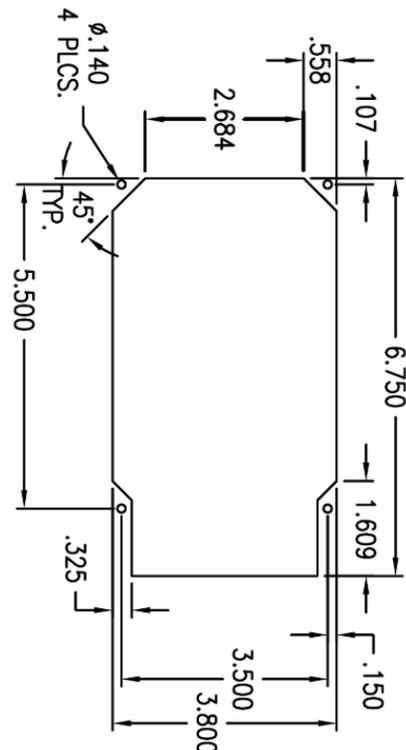
The red shape is the required VAE access hole.

The dashed black line indicates the position of periphery of the VAE control panel.



4. Use appropriate tools and techniques to enlarge the access hole to this new shape. Be careful not to bend the panel or scratch the surface outside of the control panel periphery. (Any metal chips must be removed to prevent possible shorting of the control panel circuit boards.)

The existing lower mounting holes, now unused, will be covered by the new control panel.



## **Control Panel Replacement (continued)**

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5. Locate the end of the new VAE control cable that has a cable tie positioned about 4-feet from the end. From inside the room, tie and/or tape the OPPOSITE end of the control cable to the existing cable assembly inside the panel.
6. From above the room, break the old cable connector out of the hole in the top of the power panel. Use the existing cable attached to it to carefully pull the new control cable through the panel and out through the hole in the top of the power panel and ceiling rail. Continue pulling until the cable tie on the control cable is flush with the top of the power panel. About 12 feet of cable should be above the room.
7. Position the two halves of the strain-relief grommet just above the cable tie on the new control cable. Squeeze the grommet halves together and then push the grommet and the cable down until the grommet snaps into the hole in the top of the power panel.
8. Inside the room, make sure that any metal shavings created by enlarging the hole have been removed from the control panel area.
9. Replace the previously removed strip of insulation back into the panel.
10. Attach the control cable to the control panel making sure the locking tab engages the socket.
11. Insert the control panel into the opening. It may be necessary to split the insulation to fit around the control panel circuit board.
12. Secure the control panel to the face of the power panel using the countersunk blind rivets provided.
13. Install the decal by removing the nut and washer from the footswitch jack on the face of the control panel. Clean the control panel and install the outer decal (packaged with the control panel) to cover the rivets. Replace the nut and washer on the footswitch jack and lightly tighten.
14. Remove the protective film overlay (if installed) from the LED display.
15. Remove the switch plate covering the System, Fan and Light switches in the Power Panel. Replace with the VAE cover plate.



## ***Black Box Preparation***

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"Black box" is the term used throughout this manual to describe the assembled black electronics rack containing the VAE processor and related cables and components.

1. Install the flash memory card (connector end first) into the slot in the back of the VAE processor labeled COMPACT FLASH. It will fit into this slot in only one orientation. The contacts will engage during the last 0.125" of insertion. When properly installed, only about 0.125" of the card will protrude beyond the socket.



2. Install four clip nuts into the four available holes in the front panel of the black box. (The electrical outlet is near the back side). Install them with the "nut" portion inside the black box. Using these clip nuts, install the processor into the black box with the four screws and washers provided with the VAE processor.



3. Connect the two speaker cables found inside the black box to the VEA processor. Connect the 4-pin connector marked "1-2" to the jack in the VAE processor marked "1-2". Similarly, connect the 4-pin connector marked "3-4" to the jack in the VAE processor marked "3-4".



## ***Black Box Preparation (continued)***

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4. Connect the power cable provided with the VAE processor. It installs between the IEC connector on the back of the VAE processor and the receptacle inside the black box. Bundle and position the excess cable out of the way above the VAE processor.



5. Push the power switch on the VAE unit to the "ON" position (depressed).



# ***Black Box Preparation (continued)***

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Please note before continuing:

- 6. Most installations will allow the black box to be located in its preferred position on the top of the room. In applications where that space is not available or desirable, the black box can be hung from wall on the side of the room. For those applications, install the two hanger brackets as shown using the hardware provided. The preferred orientation positions the black box with its open ends toward the side providing the best dust protection.



## ***Black Box Installation***

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1. Position the black box on the room's roof or sidewall near it's planned final position.

2. Connect the control cable. This is the cable that extends from the top of the power panel. Insert the connector at the end of this cable into the socket labeled REMOTE KEYPAD on the back of the VAE processor inside the black box. The locking tab on the connector should be positioned upward.



3. Connect the four speaker cables. These cables connect each corner panel (containing the speakers) to the black box. Locate the room corner panel directly to the left of the door as you enter the room. Connect one end of the first cable to the mating connector at the top of this corner panel where it protrudes through the ceiling rail. Connect the other end to the left-most speaker connector on the black box.



Move to the next corner in a clockwise direction and connect a speaker cable between that corner and the next speaker connector on the black box.

Continue around the top of the room in a clockwise direction connecting the remaining two speaker cables between the corner panels and their respective connectors in the black box.

4. Connect the microphone cables. Locate the microphone panel located toward the left-hand side as entering the room. Connect a microphone cable between the connector on the top of this panel and the jack labeled "MICROPHONE 1" on the back of the VAE processor inside the black box. Repeat for the other microphone panel using the jack labeled "MICROPHONE 2".



5. Make sure the VAE system power switch on the power panel is in the OFF position. Plug the main black box power cable into the mating connector on the room's Power Panel. Secure this cable to the back of the power panel using a cable clip and self-drilling screw positioned within 6-inches of the plug on the Power Panel end.

6. Position and secure all other cables to the ceiling panels as necessary using cable clips and self drilling screws as appropriate.