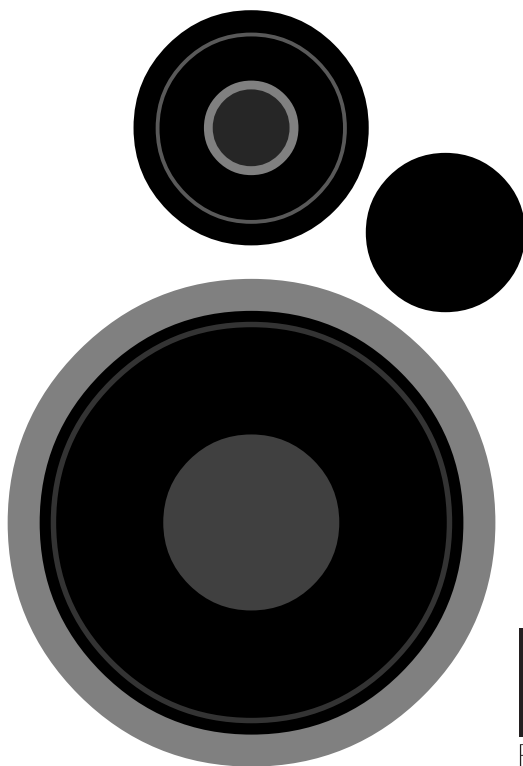


# 20/20<sup>TM</sup> V2

## DIRECT FIELD MONITOR SYSTEM



Thank you for choosing the 20/20™ V<sub>2</sub> Direct Field Monitor System. To get the most from your new monitors, please take a moment to read this manual and familiarize yourself with the product's features, set-up, and use.

## About the 20/20 Series

Our engineers have spent years designing transducers, studio electronics, and high performance studio monitoring systems—including some of the most popular professional speakers used today. Now, using the latest digital acoustic design tools and high performance driver and power amplifier technology, they've developed the 20/20 V<sub>2</sub> series—the successor generation to our award-winning 20/20™ and 20/20*bas*™ monitors. The V<sub>2</sub> monitors feature a number of technical improvements, while at the same time maintaining the standards in performance and sonic excellence for which the original 20/20 series is internationally renowned.

The 20/20 V<sub>2</sub> series comprises two 8" two-way models, the passive 20/20 V<sub>2</sub> and the active 20/20*bas* V<sub>2</sub>. Both models incorporate the same 1" silk dome high frequency driver and 8" mineral impregnated low frequency driver used in the original 20/20 and 20/20*bas*, so the accuracy and frequency response of the V<sub>2</sub> models is virtually identical to the originals. The components are housed, however in a new cabinet that features updated styling—and, more importantly—additional protection against accidental damage. The 20/20*bas* V<sub>2</sub> also features an advanced new amplifier that delivers enhanced performance. The amplifier is powered by a toroidal transformer, for greatly reduced mechanical and electrical noise.

## Unpacking

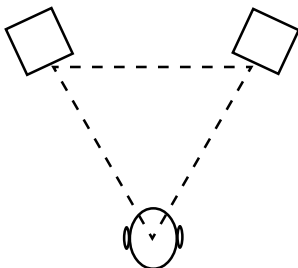
The monitors' shipping container and inner boxes are designed to protect them during transit. Please unpack and check your monitors carefully, and immediately report any damage to your dealer or to the company that delivered them to you. The packing materials are designed to be reused—do not discard them. If you need to return the monitors to the factory for repair, they must be shipped in the original packaging.

## Setup

You'll notice that the 20/20 V<sub>2</sub> monitors are physically identical. When used in a stereo configuration, there is no physical or acoustic distinction between the left and right speakers. The cabinets can sit vertically or horizontally so long as both cabinets are situated in the same direction. To maximize the "sweet spot" we recommend that the cabinets be oriented vertically. If you choose to place them in a horizontal position, orient the cabinets with the high frequency drivers pointing to the outside, away from each other. Since each

cabinet's bass port is front-mounted, you can position the monitors near a wall (or even in a wall) without fear of blocking the port, which would compromise the bass response. Notice that Figure 1 also shows the speaker cabinets turned slightly inward, so that the driver components directly face the listening position. When oriented this way, the listener is in the "sweet spot," which yields the most accurate stereo reproduction. If you need a wider sweet spot to allow for greater listener movement or for group monitoring, face the speakers in a slightly more open position, but never more than necessary. Finally, if you must mount the speakers substantially above or below ear level, you will also need to tilt the cabinets downward or upward to keep the driver components directly facing you.

As you become more familiar with your speakers, you may find it helpful to move around in the soundfield to locate the optimum listening position for your particular monitoring environment. But if you follow the equal-distance, ear-level, face-on rules outlined above, you've already optimized their position for a single user in most situations.



**Figure 1.** *When the listener and the monitors are positioned in an equal triangle with the monitors directly facing the listener, the listener is situated in the "sweet spot," which yields optimum stereo reproduction.*

### Connecting the Passive 20/20 V<sub>2</sub> Speakers to an External Amplifier

The passive 20/20 V<sub>2</sub> monitors present a 4 ohm nominal load impedance to the amplifier. Amplifiers rated for 8 ohm minimum loads are generally not suitable and may even suffer damage if used. We recommend using a power amplifier rated in the range of 100 – 200 watts per channel into 4 ohms. Higher power amplifiers can be used with caution, but care must be taken to never exceed the 20/20 V<sub>2</sub>'s 150W program/200W peak ratings. Event is not responsible for damage caused by overpowering the speaker's components.

Connections to the monitors are made via the five-way binding posts on the monitors' rear panels. These terminals will accept large diameter bare or tinned wires, spade or pin terminals, or banana plugs. Use the shortest length of #10 – #14 gauge speaker wire to connect the positive (red) and negative (black) speaker terminals to the similarly marked terminals on your power amplifier. Watch for accidental polarity reversal (it happens!), as this will cause a loss of low frequency response and center image.

### Connections and Operation: Active 20/20*bas* V2

**1 Input Sensitivity** This control is used to compensate for different signal levels that appear at the input. The control has a 20dB range; when set at maximum (MAX), 1.1V RMS input at the balanced ins will produce full amplifier output. Note that when the signal appearing at the input is too hot, the amplifiers may overload, causing distortion. If this occurs, attenuate (decrease) the Input Sensitivity by turning the control counter-clockwise.

**2 High Frequency Trim Control** This control can be used to tailor the high frequency response of the system to your room. Turn the control clockwise to increase the high frequency response; counter-clockwise to decrease it. The center detent indicates the control's "flat" position.

**3 Input 1** This balanced 1/4" line input jack accepts a male two-conductor 1/4" TS or three-conductor 1/4" TRS connector, wired for either balanced or unbalanced operation. For unbalanced operation with a TS connector, the minus signal is automatically grounded; with a TRS connector you have the option of leaving the minus input open or grounded. We recommend, however, that you ground the unused input. For balanced operation, which requires using a TRS connector, please consult the pin wiring diagram on the monitor's back panel.

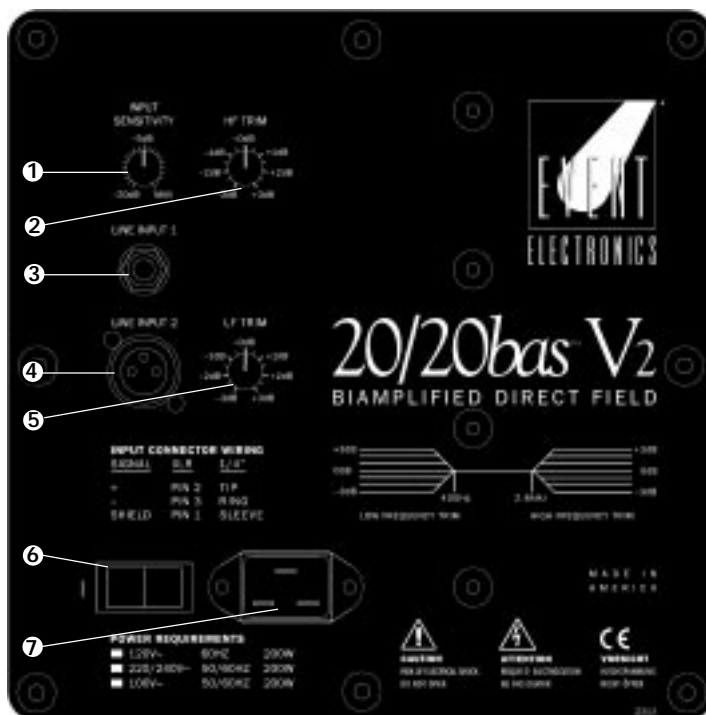
**Note:** Inputs 1 and 2 are hardwired in parallel, so either may be used as an input or as a pass-through connection. Input specifications apply equally to both inputs.

**4 Input 2** This balanced XLR line input accepts a male XLR connector, wired for either balanced or unbalanced operation. For balanced operation, please consult the pin wiring diagram on the monitor's back panel.

**5 Low Frequency Trim Control** This control can be used to tailor the low frequency response of the system to your room. Turn the control clockwise to increase the low frequency response; counter-clockwise to decrease it. The center detent indicates the control's "flat" position.

**6 Power Switch** Push the left side of the switch to turn the amplifiers on (|); push the right side of the switch to turn them off. When the amplifiers are on, the green LED located in the metal trim ring on the front of the monitor will illuminate.

**7 Power Connector** This connector accepts the detachable AC line cord. Use the line cord supplied with your monitor, and make sure it is fully seated into the Power Inlet connector. For safety reasons, do not attempt to defeat the line cord's ground connection.



## Care and Maintenance

Your 20/20 V<sub>2</sub> monitors are simple to care for and maintain. The cabinets are finished with a durable vinyl laminate that can be cleaned with a soft damp cloth. Avoid touching the exposed speaker elements. Do not expose the rear panel controls, connectors, or the speaker elements to moisture or chemicals. Do not expose the unit to dripping or splashing liquids; objects filled with liquids should not be placed on the unit.

**Caution (20/20<sub>bas</sub> V<sub>2</sub> only):** When the power switch is off, the internal amplifier components are still connected to the AC mains. The AC mains fuse is internal and serviceable by a qualified technician; it will only open if there is another problem. Please refer service to qualified personnel.

Mix at reasonable levels to protect your speakers *and* your hearing.

## Contacting Customer Service

If you experience any trouble with your 20/20 V<sub>2</sub> monitors, please call the Event Electronics Customer Service department at 805-566-7777, ext. 5. Before calling, however, we ask that you please consult the Technical Support section of our Web site, [www.event1.com](http://www.event1.com).

If you believe your 20/20 V<sub>2</sub> monitor is in need of repair, please contact the Event Electronics Customer Service department to request a Return Authorization Number (RA#). We can accept for servicing only those units that are accompanied by an RA#. Units shipped without an RA# number will be refused.

## 20/20 V<sub>2</sub> Specifications

### Low Frequency Driver

8" magnetically shielded mineral-impregnated polypropylene cone with high temperature voice coil and damped rubber surround.

### High Frequency Driver

1" magnetically shielded natural silk dome neodymium with ferrofluid-cooled voice coil.

### Frequency Response

50Hz – 20kHz, ±3dB, Ref 500Hz

### Crossover

2.2kHz, second-order

### Power Handling:

150W program; 200W peak

## 20/20 V<sub>2</sub> Specifications (cont.)

### Nominal Input Impedance

4 ohms

### Input Sensitivity

88dB @ 1W/1m

### Cabinet

1/2" vinyl-laminated MDF, internally insulated

### Connectors

Red and black five-way binding posts on 3/4" centers

### Polarity

Positive signal at red terminal produces outward low frequency cone displacement

### Dimensions

10.25" W x 14.75" H x 11.75" D

### Weight

21 lbs each

## 20/20*bas* V<sub>2</sub> Specifications

### Low Frequency Driver

8" magnetically shielded mineral-impregnated polypropylene cone with high temperature voice coil and damped rubber surround.

### High Frequency Driver

1" magnetically shielded natural silk dome neodymium with ferrofluid-cooled voice coil.

### Frequency Response

38Hz – 20kHz,  $\pm 3$ dB, Ref 500Hz

### Low Frequency Amplifier Power

130W program

### High Frequency Amplifier Power

70W program

### Input Connectors

XLR and 1/4" connectors; accept balanced or unbalanced sources

### Polarity

Positive signal at + input produces outward low frequency cone displacement

### Crossover

2.6kHz, active fourth-order asymmetrical

## 20/20bas V2 Specifications (cont.)

### Power Requirements Input Impedance

40k $\Omega$  (balanced)

### Input Sensitivity

1.1V input produces full output with Input Level Control at maximum

### Input Sensitivity Control Range

20dB

### Low Frequency Trim

Continuously variable control calculated in 1dB increments; Max boost/cut settings produce  $\pm 3$ dB @ 100Hz,  $\pm 2$ dB @ 400Hz

### High Frequency Trim

Continuously variable control calculated in 1dB increments; Max boost/cut settings produce  $\pm 3$ dB above 2.6kHz

### Indicators

Power ON/Clip LED

### Protection

RF interference, output current limiting, over temperature, turn on/off transient, subsonic filter, internal mains circuit fuse

### Power Requirements

200VA, factory programmed for either 120V~ 60Hz, 220-240V~ 50-60Hz, or 100V~ 50-60Hz mains

### Cabinet

1/2" vinyl-laminated MDF, internally insulated

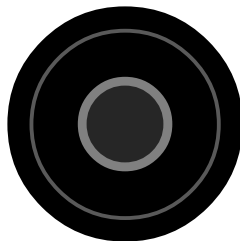
### Dimensions

10.25" W x 14.75" H x 11.75" D

### Weight

29 lbs each

Specifications subject to change without notice.



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