STUDIO PRECISION direct field monitor system



STUDIO PRECISION USER GUIDE

Thank you for choosing the Studio Precision 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 Studio Precision 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 Studio Precision series, and in so doing, have set new standards in performance and sonic excellence for direct field monitors.

The Studio Precision series comprises four models: an active and passive 8" twoway, and an active and passive 6.5" two-way. Each model features all-new, nextgeneration technology. The newly-designed neodymium soft dome radiator high frequency driver delivers an enormous soundscape and superb pan position accuracy. The high efficiency neodymium-based low frequency driver offers lower distortion than any of our previous drivers. The dual low air-restriction ports provide exceptional low frequency coupling into the room, so you can truly feel the low end as well as hear it. The active models feature an advanced new amplifier the most powerful we've ever designed. It's topped off with continuously variable low and high frequency trim controls, allowing you to precisely fine-tune the monitors for every studio environment. And for surround-sound bass management, a switchable 80Hz high pass filter is also provided.

Unpacking

The monitor's shipping container and inner box are designed to protect it 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 Studio Precision 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 ports are front-mounted, you can position the monitors near a wall (or even in a wall) without fear of blocking the ports, 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 Studio Precision Speakers to an External Amplifier The passive Studio Precision 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 Studio Precision's 150W program/200W peak ratings. Event is not responsible for damage caused by overpowering the speaker's components.

3

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 guage 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 Models (ASP8, ASP6)

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 Page 5 or 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 80Hz High Pass Filter For bass management in certain surround-sound applications, it may be desirable to roll off frequencies below 80Hz. Depress this switch to engage the 80Hz filter; leave it in the "out" position for normal operation.

5 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 Page 5 or on the monitor's back panel.

4

STUDIO PRECISION USER GUIDE

6 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.

7 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.

8 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.



5

STUDIO PRECISION USER GUIDE

Care and Maintenance

Your Studio Precision 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: 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 Studio Precision 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, <u>www.event1.com</u>.

If you believe your Studio Precision 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.

Studio Precision Specifications

Low Frequency Driver

ASP8 (Active), PSP8 (Passive) 8"; ASP6 (Active), PSP6 (Passive) 6.5" magnetically shielded mineral-filled polypropylene cone with neodymium magnet, high temperature voice coil, and damped rubber surround.

High Frequency Driver

All models: 1" magnetically shielded soft dome neodymium radiator with ferrofluid-cooled voice coil.

Frequency Response

ASP8: 35Hž – 20kHz, ±3dB, Ref 500Hz PSP8: 40Hz – 20kHz, ±3dB, Ref 500Hz ASP6: 40Hz – 20kHz, ±3dB, Ref 500Hz PSP6: 50Hz – 20kHz, ±3dB, Ref 500Hz

Studio Precision Specifications (cont.)

Low Frequency Amplifier Power

ASP8, ASP6: 200W program

High Frequency Amplifier Power ASP8, ASP6: 80W program

Low Frequency Trim Control

ASP8, ASP6: Continuously variable; maximum cut/boost setting produces ± 3 @ 100Hz, ± 2 dB @ 400Hz

High Frequency Trim Control

ASP8, ASP6: Continuously variable; maximum cut/boost setting produces ±3 above 2.6kHz

High Pass Filter

ASP8, ASP6: Pushbutton in/out; 80Hz, second-order filter slope

Crossover

ASP8, ASP6: 2.6kHz; active fourth-order asymmetrical PSP8, PSP6: 2.5kHz; second-order

Input Sensitivity

ASP8, ASP6: 1.1V input produces full output with Input Level Control at maximum PSP8: 88dB @ 1W/1m PSP6: 86dB @ 1W/1m

Input Sensitivity Control Range

ASP8, ASP6: 20dB

Input Impedance

ASP6, ASP8: $40k\Omega$ (balanced) PSP6, PSP8: 4 ohms

Input Connectors

ASP8, ASP6: XLR and 1/4" connectors; accept balanced or unbalanced sources PSP8, PSP6: Red and black five-way gold binding posts on 3/4" centers

Protection

ASP8, ASP6: RF interference, output current limiting, over temperature, turn on/off transient, subsonic filter, internal mains circuit fuse

Polarity

All Models: Positive signal at + input produces outward low frequency cone displacement

8

STUDIO PRECISION USER GUIDE

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Studio Precision Specifications (cont.)

Indicators

ASP8, ASP6: Power ON/Clip LED

Power Requirements

ASP8, ASP6: 100VA, factory programmed for either 120V~ 60Hz, 220-240V~ 50-60Hz, or 100V~ 50-60Hz mains

Cabinet

All Models: 3/4" vinyl-laminated MDF, internally insulated

Dimensions

ASP8, PSP8: 12.5" W x 16" H x 11.875" D ASP6, PSP6: 10.75" W x 13.625" H x 10" D

Weight

ASP8: 32.5 lbs each PSP8: 26.5 lbs each ASP6: 25 lbs each PSP6: 19 lbs each

Specifications subject to change without notice.



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