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You can read the recommendations in the user guide, the technical guide or the installation guide for M-AUDIO SBX 10. You'll find the answers to all your questions on the M-AUDIO SBX 10 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual M-AUDIO SBX 10
User guide M-AUDIO SBX 10
Operating instructions M-AUDIO SBX 10
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Instruction manual M-AUDIO SBX 10

M-AUDIO

SBX10

English
User Guide



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Manual abstract:

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE. ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR. UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SILES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE FOND SANS EN LAISSERAUCUNE PARTIE A DECOUVERT. PRECAUCION: PARA EVITAR SACUDIDAS ELECTRICAS, NO DEBERA UTILIZARSE ESTA CLAVIJA POLARIZADA CON UN CORDON DE PROLONGACION, RECEPTACULO U OTRO TIPO DE SALIDA A MENOS QUE SE HAYAN INSERTASO COMPLETAMENTE LAS LENGÜETAS PARA EVITAR SU EXPOSICION. NOTE: Some products are equipped with dual or multi-voltage transformers (which is indicated on the back panel). If you wish to change the voltage, please bring your unit to an authorized service technician for internal conversion. ATTENTION: Quelques pièces sont munies de transformateurs á double ou á multi-voltage (indiqué au panneau arrière). Si vous voulez changer le voltage, veuillez apporter votre appareil au fournisseur de pour le transformer. ZUR BEACHTUNG: Einige Geräte sind mit Umschaltern für unterschiedliche Netzspannungen ausgerüstet (ein Vermerk auf der Rückseite weist darauf hin). Die Anpassung, wenn notwendig, muß von einem qualifizieren Techniker in einer Servicestation vorgenommen werden.

NOTA: Ciertos componentes de están dotados de transformadores de doble tensión o de varias tensiones (Io que se indica en el panel posterior). Si se desea cambiar la tensión, sírvanse llevar el aparato a un técnico autorizado por para su conversión interna. NOTE TO CATV SYSTEMS INSTALLER: This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical. NOTA PARA EL INSTALADOR DE ANTENAS DE TELEVISION COLECTIVAS: La presente advertencia se provee para llamar la atención del instalador al Artículo 820-22 de NEC (Código Eléctrico Nacional) donde se facilitan las directrices para la pertinente puesta a tierra y que especifica en particular que el conductor a tierra del cable debe conectarse al sistema de conexión a tierra del edificio, lo más proximo posible al punto de entrada del cable. The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.

! The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance. Warning: This speaker shall not be placed in a closed area during operation so that the main switch can be easily accessed by the user. IMPORTANT SAFETY INSTRUCTION 1. READ INSTRUCTIONS All the safety and operating instructions should be read before the appliance is operated. RETAIN INSTRUCTIONS The safety and operating instructions should be retained for future reference. HEED WARNINGS All warning on the appliance and in the operating instructions should be adhered to. FOLLOW INSTRUCTIONS All operating and use instructions should be followed. WATER AND MOISTURE The appliance should not be used near water for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc. CARTS AND STANDS The appliance should be used only with a cart or stand that is recommended by the manufacturer. 13. 12. POWER CORD PROTECTION Power-supply cord should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance. POLARIZED PLUG Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong.

The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. UNPLUG POWER CORD Unplug this apparatus during lightning storms or when unused for long periods of time. OBJECT AND LIQUID ENTRY No object filled with liquids, such as vases, etc. shall be placed on the apparatus. ACCESSORIES Only use attachments/accessories specified by the manufacturer. SERVICING The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel. DAMAGE REQUIRING SERVICE The appliance should be serviced by qualified service personnel when: a) The power-supply cord or the plug has been damaged; or b) Objects have fallen, or liquid has been spilled into the appliance; or c) The appliance has been exposed to rain; or d) The appliance does not appear to operate normally or exhibits a marked change in performance; or e) The appliance has been dropped, or the enclosure is damaged. 2.

3. 4. 5. 14. 6.

15. 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven sTurfaces may cause the appliance and cart combination to overturn. 7.

WALL OR CEILING MOUNTING This equipment is not designed for use mounted on a wall or a ceiling. VENTILATION The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or places in a built-in installation, such as bookcase or cabinet that may impede the flow of air through the ventilation openings. At least 30 cm free space around the unit for normal ventilation is required. 9. HEAT Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. CLEANING The appliance should be cleaned only with dry cloth. POWER SOURCES The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance. 16. 17.

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And by using a 4th-order Linkwitz-Riley topology, the circuit enables you to achieve the flattest net response through the crossover point. For multichannel systems, the SBX10 subwoofer can be reproduced for the TRS Inputs (6). 11. Power Switch This switch turns the subwoofer on and off. 14. This results in an extremely accurate and controlled bass response. Then connect the included AC cable. In this scenario, you can route your subwoofer audio signal to either the left or right input on the SBX10 subwoofer. Further, you should bypass the subwoofer's internal crossover by setting the crossover control to the 200Hz position (fully open). Adjusting the Back Panel Controls Crossover Control (3) We have touched on this topic already, but here are a few more points to keep in mind: · The crossovers of most A/V home theater systems are set to 80Hz (assuming they are being used with a subwoofer).

So if you are mixing multichannel material using the SBX10 subwoofer, we recommend you start with the 80Hz setting as a reference to approximate a typical end-user listening environment. For easy compliance with Dolby Digital, DTS, and THX recommendations, we have provided calibrated markings on the crossover dial for 80Hz, 100Hz, and 120Hz positions (in addition to 50 Hz and 200 Hz). If you are using the SBX10 subwoofer with direct-field monitors with 5" drivers (such as M-Audio's BX5a Deluxe or CX5) in a 2-channel setup, we recommend you start with 80Hz as your crossover point and adjust it to suit your particular acoustic environment. The documentation for your direct-field monitors may also include a recommended subwoofer crossover frequency. If you are using the SBX10 subwoofer with direct-field monitors with 8" drivers (such as M-Audio's BX8a Deluxe or CX8) in a 2-channel setup, we recommend you start with 50Hz as your crossover point and adjust it to suit your particular acoustic environment. The documentation for your direct-field monitors may also include a recommended subwoofer crossover frequency. · · · Studiophile BX10s Deluxe Subwoofer 11 d 11 English Phase Select (4) As we mentioned before, this switch inverts the signal (the phase angle from 0° to 180°) that goes to the subwoofer amplifier. The Phase Select function does not affect the signal going to your direct-field monitors. You can select the appropriate position of this switch by listening to the way the sound from the SBX10 subwoofer blends with the rest of your system. There is no "right" or "wrong" position, per se but logically you want the subwoofer to be "phase coherent" with your direct-field monitors at the crossover frequency, and not have any audible energy cancellation.

One way to determine this phase coherence is by playing a sine wave signal at the crossover frequency you have selected and put the phase switch in the position that gives you the strongest output. Volume (12) You should always send a line-level signal to the SBX10 inputs.



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When the volume control is all the way up, 85mV of pink noise at the input will produce 100dBA output SPL at one meter from the front baffle. The volume control affects the level going to the SBX10 amplifier and does not affect the level of the SBX10 outputs that feed your direct-field monitors. Generally, we recommend that you try to get the flattest, most even system response between your subwoofer and your direct-field monitors so depending on the acoustics of your environment and how you have set up your signal path and levels, you should spend a few minutes calibrating the respective levels of the subwoofer and each of your main monitors.

If you have access to pink noise signals and/or swept sine waves (linear and logarithmic), they can be of great help for ensuring your system has the smoothest tonal balance from top to bottom. Subwoofer Bypass (11) This is a 1/4" mono jack for connecting a non-latching footswitch like the M-Audio SP-1 (or any similar sustain pedal for a keyboard controller). In 2-channel situations, toggling the footswitch triggers a relay circuit that mutes the subwoofer output and reroutes the full-bandwidth audio signal directly to your direct-field monitors. In essence, it takes the subwoofer (with its crossover) completely out of the signal path so you can easily audition your mixes both with and without the presence of the SBX10 subwoofer's low frequency extension all from your mixing position. This function can also be useful for multichannel operation.

Note that when SBX10 is in bypass mode, the LED Indicator on its front face flashes red. More information on using a subwoofer for multichannel applications may be found at www.dolby.com, www.dts.com, or www.thx.com. The web sites mentioned above are examples only and are in no way associated or affiliated with M-Audio or Avid Technology, Inc. M-Audio does not guarantee the performance or availability of these services.

M-Audio SBX10 is not endorsed, sponsored, or approved by these companies. 12 Studiophile BX10s Deluxe Subwoofer SBX10 The "location location location" cliché doesn't only apply to the real estate market. It is equally (if not more) applicable to the subject of loudspeakers and room acoustics. As you can imagine, where you place the SBX10 subwoofer in your room can have a huge impact on how it will sound. In fact, any well-designed, powerful subwoofer can sound like a complete dud in your monitoring setup if you have placed it poorly. (This applies for any loudspeaker, but it is especially true for low-frequency reproducers like subwoofers.) There are many opinions on the best method to determine the optimal location for your subwoofer. In fact, if you ask three different studio engineers, they will probably give you six different answers. But we cannot emphasize enough how important this issue is, so please take a little time to think about subwoofer placement; keeping in mind that the shape of your room, its dimensions (including ceiling height), the wall construction, and any acoustic treatment you have can affect the subwoofer's apparent performance. @@@@ Both of these methods are valid, but there is yet another method that many mix engineers have employed with great success: exploiting the law of bilateral symmetry.

With this method, you would place the SBX10 subwoofer in the chair in your listening position. (Presumably, this is at the apex of an isosceles triangle between your left and right direct-field monitors.) Play some music with substantial bass frequencies into the subwoofer at a comfortable listening level. (Pink noise works great for this too.) Crawl around the floor of your room and listen for a place where the sound is "fullest" but also "tight" sounding. Wherever that is, that's where your SBX10 subwoofer will go. If you want to be more precise, you can use a 1/12th-octave real-time (spectrum) analyzer instead of your ears and perform the same exercise. (If you do this, make sure you play pink noise as the test signal and observe where the spectral response is smoothest and has the greatest low-frequency extension.) Please note that because low-frequency signals radiate omnidirectionally, you may find that the best location sonically for the SBX10 is quite inconvenient (like in an area of your studio with a lot of foot traffic). If this is the case, you can flip the Phase Select switch on the subwoofer's back panel and repeat the exercise, hoping for a more convenient outcome.

Finally, once you have placed the SBX10 subwoofer where you believe it will sound best, play some material along with direct-field monitors, listening from your standard mix position. (Make sure the SBX10 volume level, phase, and crossover are set appropriately.) If something is askew, try out some new subwoofer locations. As always, feel free to experiment with different locations (and different directions for facing the driver). You may inadvertently find a better way to place the subwoofer, even if you think its current location already sounds good. Studiophile BX10s Deluxe Subwoofer 13 d 13 English Placing the SBX10 Subwoofer Appendix A - Technical Specifications Type Woofer Driver Frequency Response Crossover Input Sensitivity Amplifier S/N Ratio THD at rated power Inputs Outputs Controls Input Impedance Maximum input level Protection Indicator Power Requirements Bass-reflex active powered subwoofer 10-inch composite (treated paper/fiberglass) cone with high-temperature voice coil and damped rubber surround 20Hz - 200Hz HP/LP linked filter sweepable from 50-200Hz; 24dB/octave 4th-order alignment 85mV pink noise input produces 100dBA output SPL at one meter with volume control at maximum 240W average power into 4 ohms, discrete transistor design 86dB (A-weighted) 0.019% Two XLR balanced/unbalanced inputs; two TRS balanced/unbalanced inputs, two RCA unbalanced inputs Two XLR balanced/unbalanced outputs for satellites; two TRS balanced/unbalanced outputs for satellites Volume/Gain control, phase inverse switch, variable crossover control, subwoofer bypass footswitch jack 20k ohms balanced, 10k ohms unbalanced +20dBu Over temperature, turn-on/off transient, subsonic filter, external mains fuse, DC protection, over current protection Power On (blue) or Bypass (red) Dual-voltage (selectable by rear-panel switch) for either 100-120V/~50/ 60Hz or 220-240V/~50/60Hz; powered via detachable grounded IEC cable Vinyl-laminated MDF 15.5 in. (h) x 13 in. (w) x 17.

25 in. (d); 39.4 cm (h) x 33 cm (w) x 43.8 cm (d) 54.6 lbs, 24.75 kg Cabinet Dimensions Shipping Weight * Above specifications subject to change without notice 14 Studiophile BX10s Deluxe Subwoofer SBX10 Studiophile BX10s Deluxe Subwoofer 15 d 15 English Appendix B - Block Diagram Your SBX10 Warranty Warranty Terms M-Audio warrants products to be free from defects in materials and workmanship, under normal use and provided that the product is owned by the original, registered user.



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Doing so immediately both entitles you to full warranty coverage and helps M-Audio develop and manufacture the finest quality products available. Register online at www.m-audio.com/register for the chance to win M-Audio giveaways. Documentation Feedback At M-Audio, we are always looking for ways to improve our documentation.

If you have comments, corrections, or suggestions regarding our documentation, email us at publications@m-audio.com. SBX10 Tested to comply with FCC standards FOR HOME OR STUDIO USE WARNING: This product contains chemicals, including lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. © 2009 Avid Technology, Inc.

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