



MPS1620P PROFESSIONAL MONITOR



OPERATION MANUAL

**MPS1620P
PROFESSIONAL MONITOR**



M&K Sound · Denmark · www.mk sound.com

The Choice of Professionals®

Ver. 1.0 - NOVEMBER 2017

The Choice of Professionals®

Table of contents

1. SAFETY INSTRUCTIONS ENGLISH & FRENCH	3-4
2. INTRODUCTION	5
3. VOLTAGE SELECTOR & POWER CORD	5
4. DESIGN FEATURES & SET UP GUIDANCE	5
5. INPUT & CONTROLS	6-7
6. MODES OF OPERATION	8-9
7. ACCESSORY BRACKET & LINE DWG	10
8 TECHNICAL SPECIFICATIONS	11

Please record the following information for your records:

Serial Number:	
Date of Purchase:	
Dealer Name:	
Dealer Address:	
City/State/Zip:	
Country:	
Invoice Number:	

Important Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blade 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. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15) The equipment shall be used at maximum 35-degree C ambient temperature.
- 16) Do not open the equipment to reduce the risk of electrical shock. For safety reasons it is only allow to the opened by qualified service personnel.
- 17) WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. And the apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- 18) The MAINS plug is used as the disconnect device and shall remain readily operable.
- 19) The product shall be used on open bench.
- 20) No naked flame sources, such as lighted candles, should be placed on the apparatus.
- 21) The apparatus is suitable for use in tropical climates.



	Le symbole de l'éclair avec une flèche à son extrémité, dans un triangle équilatéral, a pour but de vous avertir de la présence d'une « tension électrique dangereuse » et non isolée à l'intérieur de l'enceinte de l'appareil, qui peut être suffisamment puissante pour constituer un risque d'électrocution pour les personnes.
	Le point d'exclamation dans un triangle équilatéral vous avertit de l'existence d'instructions importantes de fonctionnement et d'entretien (intervention) dans la documentation accompagnant l'appareil.

Consignes de sécurité importantes

- | | |
|---|---|
| <p>1) Lisez ces instructions.</p> <p>2) Conservez ces instructions.</p> <p>3) Observez tous les avertissements.</p> <p>4) Suivez toutes les instructions.</p> <p>5) N'utilisez pas cet appareil à proximité de l'eau.</p> <p>6) Utilisez uniquement un chiffon sec pour le nettoyer.</p> <p>7) Ne bloquez pas les ouvertures de ventilation. Installez conformément aux instructions du fabricant.</p> <p>8) Ne l'installez pas à proximité de sources de chaleur telles que des radiateurs, des bouches de chaleur, des poêles ou d'autres appareils (amplificateurs compris) produisant de la chaleur.</p> <p>9) Ne pas contourner le dispositif de sécurité de la polarisation ou la prise de type mise à la terre. Une fiche polarisée a deux lame avec une plus large que l'autre. Une mise à la terre Type fiche comporte deux lames et une troisième broche de mise à la terre. La lame large ou la troisième broche sont fournies pour votre sécurité, ta sécurité. Si la fiche fournie ne rentre pas dans votre sortie, consultez un électricien pour le remplacement de la prise obsolète.</p> <p>10) Protégez le cordon d'alimentation, surtout au niveau des fiches, des prises et des points où il sort de l'appareil, pour éviter qu'on ne marche dessus ou qu'on ne le pince.</p> <p>11) Utilisez uniquement les accessoires spécifiés par le fabricant.</p> <p>12) Utilisez uniquement avec le chariot, le socle, le trépied, la table ou le support spécifié par le fabricant ou vendu avec 'appareil. En le fabricant ou vendu avec</p> | <p>l'appareil. Cas d'utilisation d'un chariot, faites attention lorsque vous déplacez l'ensemble chariot / appareil de ne pas le renverser.</p> <p>13) Débranchez cet appareil lors d'orage avec foudre ou lorsque vous ne l'utilisez pas pendant des périodes prolongées.</p> <p>14) Faites-le réparer et entretenir par un personnel de service qualifié. Il est nécessaire de faire réparer l'appareil lorsqu'il a subi des dommages quelconques du type suivant : cordon ou fiche d'alimentation abimé, liquide renversé ou objets tombés dans l'appareil, exposition de l'appareil à la pluie ou à l'humidité, mauvais fonctionnement ou chute.</p> <p>15) La température ambiante lors de l'utilisation ne doit pas dépasser 35 degrés Celsius.</p> <p>16) Afin de réduire les risques d'électrocution, n'ouvrez pas l'équipement. Pour des raisons de sécurité, seul du personnel d'entretien qualifié est autorisé à l'ouvrir.</p> <p>17) ATTENTION: Pour réduire le risque d'incendie ou d'électrocution, n'exposez pas cet appareil à la pluie ou à l'humidité. De plus, l'appareil ne doit pas être exposé au dégouttement ou aux éclaboussures et aucun objet rempli de liquide, tel qu'un vase, ne doit être posé sur l'appareil.</p> <p>18) La fiche d'alimentation CA sert de principal dispositif de déconnexion et doit toujours être capable de fonctionner correctement.</p> <p>19) Ce produit doit être utilisé sur une surface ouverte</p> <p>20) Aucune source de flamme nue, telle, que des bougies allumées, ne doit être placé sur l'appareil.</p> <p>21) L'appareil est adapté pour une utilisation dans les climats tropicaux.</p> |
|---|---|



	Le symbole de l'éclair avec une flèche à son extrémité, dans un triangle équilatéral, a pour but de vous avertir de la présence d'une « tension électrique dangereuse » et non isolée à l'intérieur de l'enceinte de l'appareil, qui peut être suffisamment puissante pour constituer un risque d'électrocution pour les personnes.
	Le point d'exclamation dans un triangle équilatéral vous avertit de l'existence d'instructions importantes de fonctionnement et d'entretien (intervention) dans la documentation accompagnant l'appareil.

2. INTRODUCTION

Congratulations and thank you for purchasing the MPS1620P. This M&K Sound Professional powered monitor is designed to provide many years of accurate and problem free operation.

We encourage you to read this owner's manual, as there is a great deal of information provided here to help you get the best possible performance from your new M&K Sound Professional monitor.

If you still have questions about your powered monitor after you have read this manual, please contact your M&K Sound dealer or visit www.mksound.com

3. VOLTAGE SELECTOR & POWER CORD

Adjacent to the AC power cord receptacle on the back of the monitor you will find a voltage selector switch pre-set at the factory for the proper local voltage.



The voltage input can be changed to the correct local voltage by sliding the selector to correct position. **Before changing voltage** make sure the correct fuse value is present in the fuse holder. For USA, Canada, Taiwan and Japan voltage 100/120 Volt, set voltage selector to 115Volt. For Europe, the UK and Asia voltage 220/240 Volt, set voltage selector to 230Volt

Always check to make sure that your Monitor is set to your **Country's voltage**. If you have questions about this, contact your M&K Sound dealer.

DETACHABLE POWER CORD

Your new monitor is provided with a detachable power cord. **ALWAYS attach the cord to the monitor first, BEFORE plugging it into the AC wall socket.**

4. DESIGN & SET UP GUIDANCE

M&K Sound design philosophy is that accurate and lifelike sound and music reproduction takes place when your ears, in effect, become the recording microphones. Our monitors are designed to allow you to hear precisely what the microphones heard, placing you as close or as far away from the sound source as the recording engineer placed the microphones. To achieve this, your MPS1620P monitors are specifically designed and engineered to produce sound imaging in front of themselves.

The monitor design is featured with a true Bi-Amp design providing 100watt RMS amplifier power for the midrange-woofer and 50watt RMS amplifier for the tweeter, to ensure high sound quality and a wide dynamic range. The MPS1620P offers extraordinary accuracy and flatness in both the frequency and phase domains, that assures critical listeners of precision monitoring, for extended lengths of time without any fatigue.

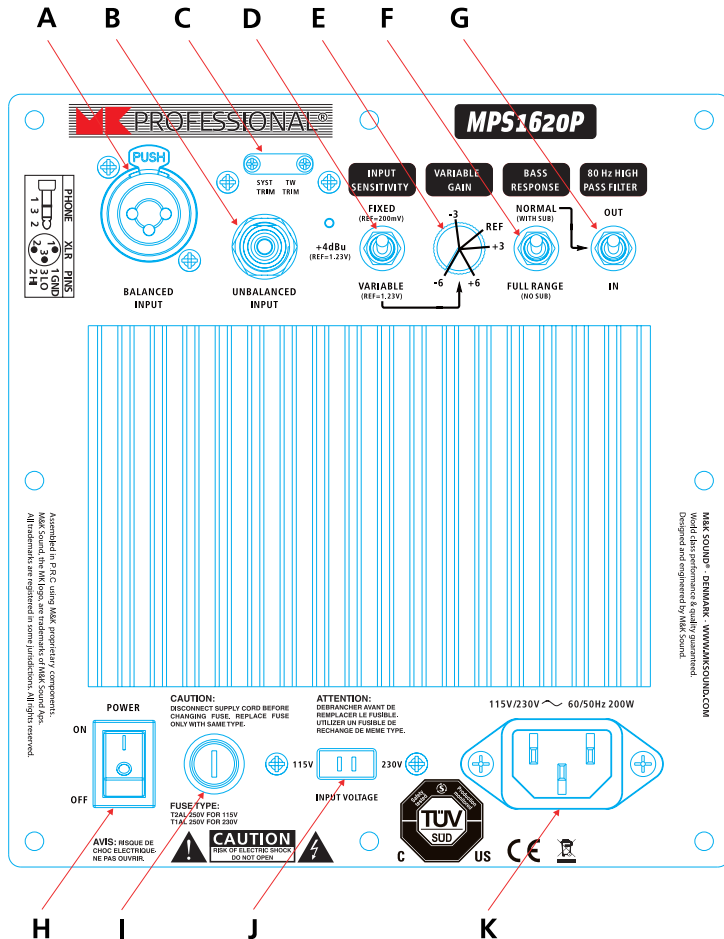
The MPS1620P are much suitable for stereo and multi-channel mixing, and can be used either as a stand-alone full-range" monitor, or in combination with any of M&K Sound powered subwoofer models.

Placing the MPS1620P for direct on-axis response in the listening position, provide the most accurate sound image. Use the recessed LED light on front as the perfect "on-axis guide", as when the LED light becomes fully visible, the speaker is placed perfectly on axis for the listening position.

Recommendable spacing between the speakers are app 2-3 meter (6.5-10 Feet) with a listening distance of, 1,5-3 meter (5-10 Feet). In these ranges the speaker will perform with high precision and great imaging.

5. INPUT & CONTROLS

- A. Balanced XLR & 6,3 mm Jack Input
- B. Unbalanced RCA input
- C. System & tweeter level trim.
- D. Input level selector
- E. Variable gain volume trim
- F. Bass response Normal / Full range
- G. 80Hz High Pass filter in/out switch
- H. Main Power Switch
- I. Fuse holder
- J. Main Voltage selector
- K. Main Power socket

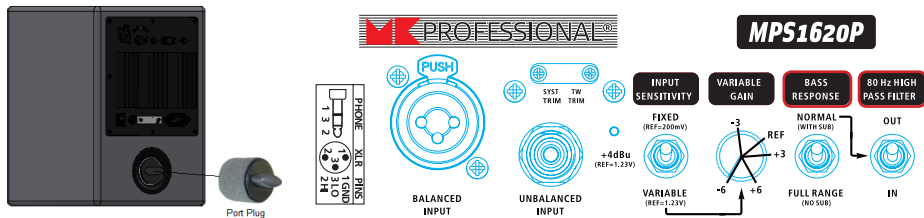


A		<p>Balanced Input XLR or 6.3 mm Jack. Use balanced connection to professional mixing equipment, sound-cards & studio monitor controllers.</p>
B		<p>Unbalanced Input RCA. Use unbalanced connection to Hi-Fi preamps, TV set, or general small portable sound devices.</p>
C		<p>System & Tweeter trim System and tweeter trim pots for "output level" calibration. Using the trim pots will impact the factory preset frequency response and output level, and shall only be calibrated by qualified engineers.</p>
D		<p>Input sensitivity switch. Use switch position "Fixed" when connecting to unbalanced devices. Use switch position "+4dBu" when connecting to professional balanced equipment. Use switch position "Variable" to activate gain level control, for fine tuning "system output level".</p>
E		<p>Variable gain control. The variable gain control can be used when operating 1620P with subwoofers, or in setups with other speakers having higher or lower output levels. The variable gain control offer +/- 6dB gain control relative to the +4dBu REF level.</p>
F - G		<p>Bass Response & High-Pass filter. Set Bass Response & High Pass Filter switch properly when operating the MPS1620P either as a stand-alone full range speaker, or in setups with subwoofers and Bass management controllers. See section "MODES OF OPERATION" for further instructions.</p>
H		<p>Main Power on/off Turns the system on / off. Status LED are present on front and back of speaker.</p>
I		<p>Fuse holder. Fuse type T2AL 250Volt for 110 / 120 Volt Fuse type T1AL 250 volt for 220 / 240 Volt Caution! Always disconnect power cord before changing fuse, Replace fuse only with same type.</p>
J		<p>Voltage selector 115 / 230 Volt. Caution! Always disconnect power cord and change fuse to correct value before changing input voltage.</p>
K		<p>Main Power socket Use the included power chord for the main power connection.</p>

6. MODES OF OPERATION

The MPS1620P has variable set-up modes for Bass response, when either working as a stand-alone monitor offering extended Bass from the back-firing port as a **reflex system**, or as a **sealed system** in combination with M&K Sound subwoofers.

A removable port plug is found on the back of the speaker to be used for changing Bass response modes. Simply **remove the port plug** when the monitor shall be used as stand-alone monitor for **Full Range system response**, or **leave in the port plug** to operate the monitor as **sealed enclosure system with subwoofers**.



Using the removable port plug in combination with “Bass Response switch” and the “80Hz High Pass Filter switch” found on the back-panel, provide the 1620P with great flexibility for operational setup

USAGE MODE WITHOUT SUBWOOFER	PORT PLUG	BASS RESPONSE SWITCH	80Hz HIGH PASS FILTER SWITCH
Full Range Ported - Bass Response (45Hz - 22kHz)	OUT	NORMAL	OUT
Full Range Ported - Bass Response Extended (35Hz - 22kHz)	OUT	FULL RANGE	OUT
Full Range Ported - Bass Response Extended (60Hz - 22kHz)	IN	FULL RANGE	OUT
USAGE MODE WITH SUBWOOFER			
Sealed enclosure without external bass management controller	IN	NORMAL	IN
Sealed enclosure with external bass management controller	IN	NORMAL	OUT

The multiple operation modes for MPS1620P to become either a “full range ported system” or a “sealed enclosure system, provides the recording engineer with great options in choosing the most suitable setup in the studio for either near field or mid-field monitoring applications.

In small control rooms for typical near field monitoring with speakers placed less than 1 meter / 3 feet from listening position, the “**full range sealed**” configuration will provide controlled Bass response down to 60 Hz.

For slightly larger rooms allowing for more bass, but still with speakers placed closed to the listening position, the “**ported normal**” configuration will provide controlled Bass response down to 45Hz.

For rooms of larger size allowing for deeper bass and where the distance to listening position becomes more like mid-field position (1,5mtr / 5 feet), the MPS1620P can be used in the “**ported full range**” configuration to bring along **extended Bass** response down to 35Hz.

In setups with subwoofers, - Bass Management Control is needed to handle performance of the monitor and subwoofer when working together.

In a stereo mix environment, it is crucial that the left and right monitor speakers when in their selected studio location, have near identical bass response at the mixing engineers prime listening position.

No less is true for multichannel mixing, where low frequency equalization and mixing decisions are even more difficult, unless all channels have the same bass frequency response at the mixers listening position.

The best way to operate MPS1620P with subwoofers is to use the M&K Sound BMC-1 Bass Management controller, which are designed especially for summing up a total of 5 input channels into 1 or 2 “common” sub outputs.

Using the BMC-1 Bass management controller for any 2 channel or multi-channel mix setup, will provide the most correct set up conditions for MPS1620P and subwoofer(s), as the BMC-1 internal high pass and low pass filtering are routed out for direct connection of the MPS1620P monitor and M&K Sound subwoofers, offering perfect processed outputs and level calibration for the units.

When using MPS1620P together with other types of “studio monitor controllers” or HiFi preamps having dedicated subwoofer output connections, then make sure to firmly check how these operates for sub bass content.

Some units just have their left and right channels summed into a common “sub out” channel, while the main channels at the same time provide full frequency bandwidth response to their respective left and right channel outputs. In such setups the MPS1620P is recommended to operate as **sealed enclosure “without External Bass Management”** to make sure the Bass response of the MPS1620P will be properly filtered.

If the studio monitor controller or HiFi preamp itself offers both high pass and low pass filtering, the MPS1620P shall be set to operate as **sealed enclosure “With Bass Management”**, as then the monitor controller or HiFi preamp will handle the crossover filtering between the subwoofer and MPS1620P monitor.

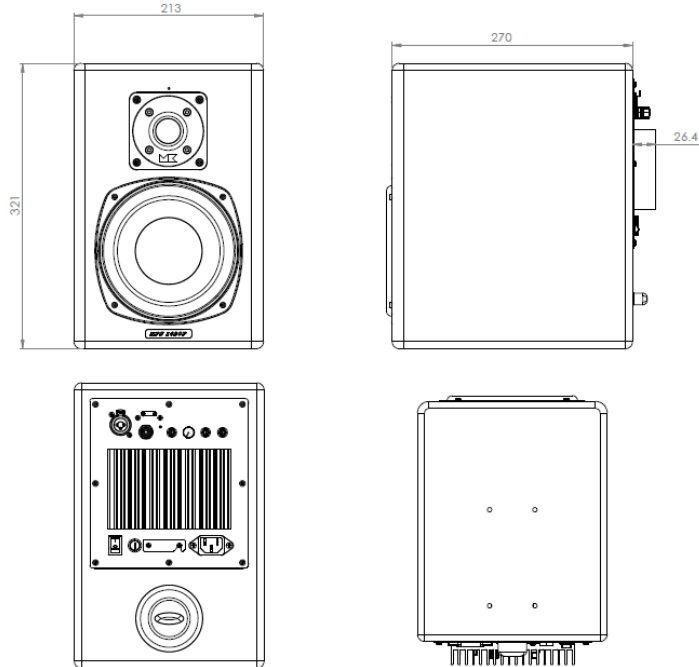
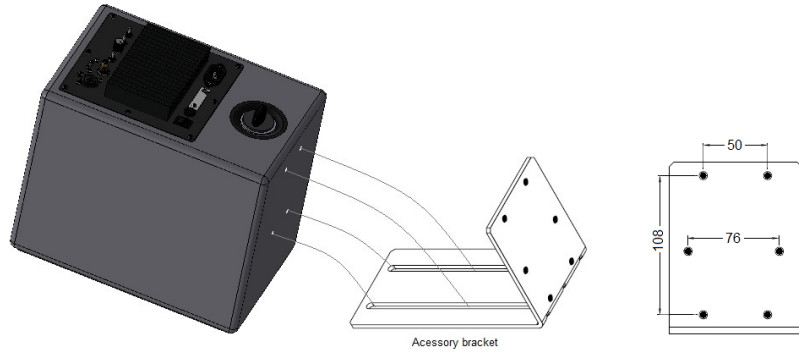
Using the MPS1620P with modern surround sound amplifiers or processors, the Bass management control will be present by the surround sound “equipment”, and the MPS1620P shall also in such setups be set to operate as **sealed enclosure “With Bass Management”**.

Modern surround amplifiers, processors and monitor controllers are according to their build in decoding processors for various surround sound formats and crossover filter options, not always made with same designs and some products may offer more features than others.

Normally the basic features for proper Bass management control will be present in such dedicated equipment, but always check the actual unit for their technical specifications, to make sure proper Bass management control is possible to make when used in setups with the MPS1620P monitor and M&K subwoofers.

7. ACCESSORY BRACKET

For mounting MPS1620P on speaker stands, use the included L-bracket for adaption to either floor stands or wall mount brackets. The included L-bracket shall be attached to the speaker by using included ¼ inch x 20 screws.



8. TECHNICAL SPECIFICATIONS

Amplifier power bass-midrange	100watt RMS/200watt peak
Amplifier power high frequency.....	50watt RMS/100watt peak
Bass-midrange	6,5" polypropylene woofer
High frequency drivers.....	1 x 1" soft dome tweeter
Frequency response	Sealed/normal setting (with high pass filter) 80-22KHz +/-2dB
Frequency response	Sealed/full range setting (wall or console loaded) 60-22KHz +/-2dB
Frequency response	Ported/normal setting 45-22KHz +/-2dB
Frequency response	Ported/full range setting (wall or console loaded) 35-22KHz +/-2dB
Total Harmonic distortion	< 0,025% into 8 ohms LF channel / < 0.025% into 4 ohms HF channel
Signal to noise ratio.....	100 dB
AC power consumption	Standby/Average/Max (15W, 30W, 240W)
AC line voltage.....	110/120VAC/60Hz 2A – 220/240VAC/50Hz 1A
Input impedance	Unbalanced 11kohm / Balanced 22Kohm
Input sensitivity unbalanced	100mV 88dB 1m / balanced 200mV 88dB 1m
Max output level	106dB/100Hz
Max input	24dBu balanced
High pass filter	Fixed 80 Hz (24dB)
Dimensions H X W X D.....	32.1 x 21.3 x 29.7cm / 12.6 x 8.3 x 11.6"
Weight	9,2 kg 20.3lbs
Finish.....	Black Satin