



# GLA-MP1



**PLEASE NOTE THAT THE GLA-MP1 BISHOP IS INTENDED FOR PROFESSIONAL USE. IT'S NOT A CONSUMER ELECTRONIC DEVICE. ITS INSTALLATION AND USE REQUIRE CERTAIN PROFESSIONAL SOUND ENGINEERING KNOWLEDGE AND SKILLS. LACK OF THIS KNOWLEDGE MAY RESULT IN MALFUNCTION, DAMAGE OR PERSONAL INJURY.**

**Op**

## **OPERATION AND SAFETY PRECAUTIONS**

- Use only grounded electrical outlet!
- Do not open the device and don't do any modifications on it!
- Do not attempt to repair or replace any of the components unless specifically instructed to do so in this guide.
- Pay attention to not put any solid matter (flammable things, coin, nail etc) or liquid (water, alcohol etc.) inside device.
- Do not twist or break the power cord or place heavy objects on it. Doing so may damage the cable and cause a short circuit. Damaged cables can cause fire and electric shock!
- Protect the device from intensive external shock! (for example: falling down)

**Never use the device in following conditions:**



- Extreme temperature
- Moisture
- High humidity
- Rain
- Dust
- Heavy vibration

In the following cases, turn off the machine immediately, unplug the power cord, and contact us ([support@gainlabaudio.com](mailto:support@gainlabaudio.com)):

- If the mains plug of the appliance is damaged
- If you notice smoke or an unusual odor
- If any object or liquid gets inside the device,



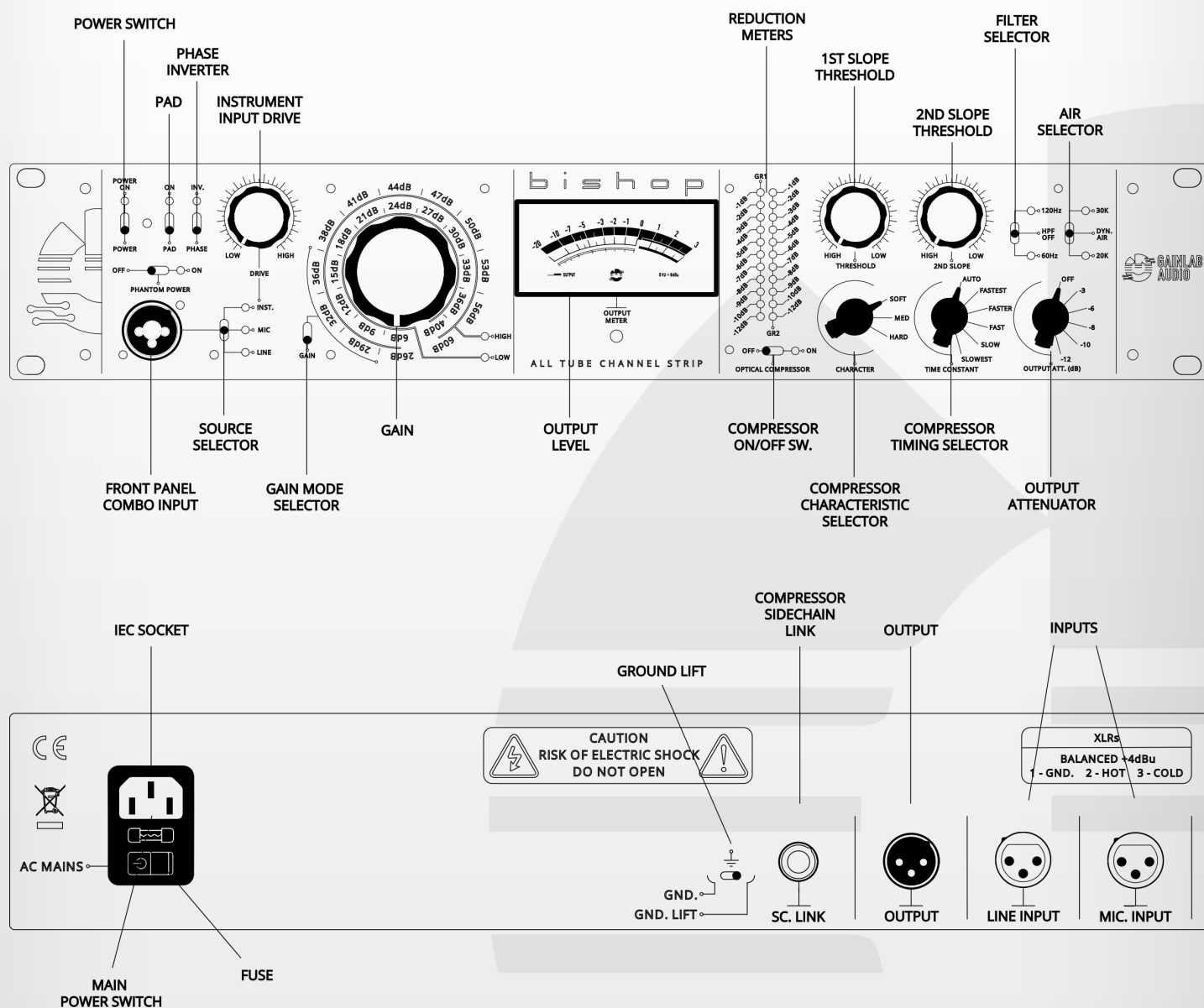
- If the device has been exposed to rain or other moisture,
- If the device does not operate normally
- Do not connect the appliance to a mains socket to which an electrical appliance controlled by an inverter, switching power supply (eg. refrigerator, washing machine, microwave, air conditioner) or a appliance with a motor is connected.
- Depending on the use of the electrical devices, power supply noises may cause a malfunction or audible noise on this unit. If a separate electrical outlet cannot be used, connect a noise filter between this and the other electrical appliance.
- The unit heats up during several hours of continuous operation. This is normal and not a cause for concern.
- Turn off all devices before connecting the device to other devices. This will prevent damage to speakers and other equipment.
- Use of the unit near amplifiers or other equipment that contains a transformer may cause noise. To resolve this issue, relocate the device or move it away from the interfering device.
- Noise may be caused by using a wireless communication device near the device, such as a mobile phone. Such noise can occur when making, receiving, and diverting a call. If you experience this problem, move the wireless device away from the device or turn it off.
- This unit may interfere with radio and television operation, so do not use near such receivers.
- If the device is transported to a location with a very different temperature and / or humidity, moisture may condense inside. Using the device in this condition may result in damage or malfunction. Therefore, wait a few hours for the moisture to completely evaporate before using the appliance.

## **CI** CLEANING AND MAINTENANCE

Clean the appliance daily with a soft, dry or slightly damp cloth. Use a soft, abrasion-free cloth to remove stubborn dirt. Then wipe the device with a dry cloth. Never use benzine, thinner, alcohol or other solvents, strong alkaline or acidic cleaners as they may cause discoloration and deformation.

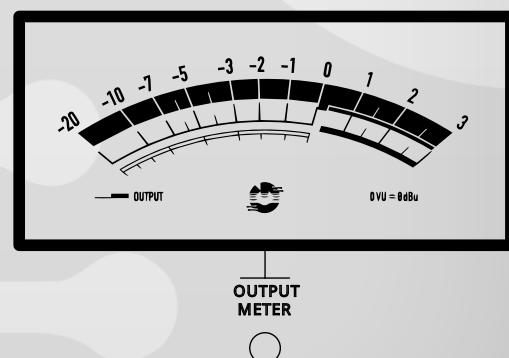


## OVERVIEW



## OUTPUT LEVER METER

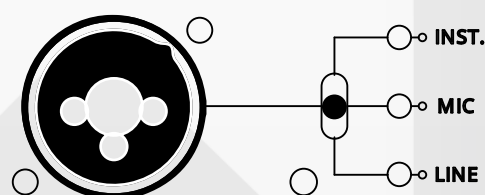
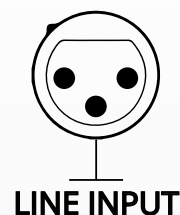
The Output Level Meter provide information about the magnitude of the signal level leaving the unit. If it is need to reset the meter, with the device turned off, use a straight slotted screwdriver to turn the mechanical reset screw until the pointer is in the center of the -20 point value on the lower scale. 0 VU is equal to +8 dBu.



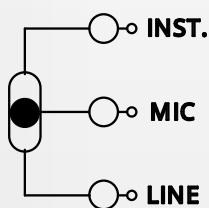


## In INPUTS AND INPUT SELECTION

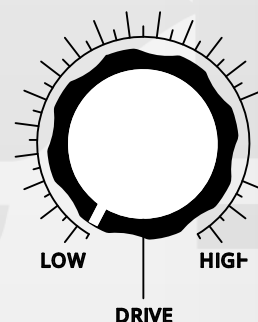
You can find several different inputs on the Bishop. Two inputs on the back, for microphone and line signal. A combo XLR on the front panel for connecting microphone, line source, or instrument. If microphone is plugged into the front panel combo, it will automatically disconnect the rear panel MIC input. With the input selection switch on the front panel, you can choose which type of signal you want to use the device with.



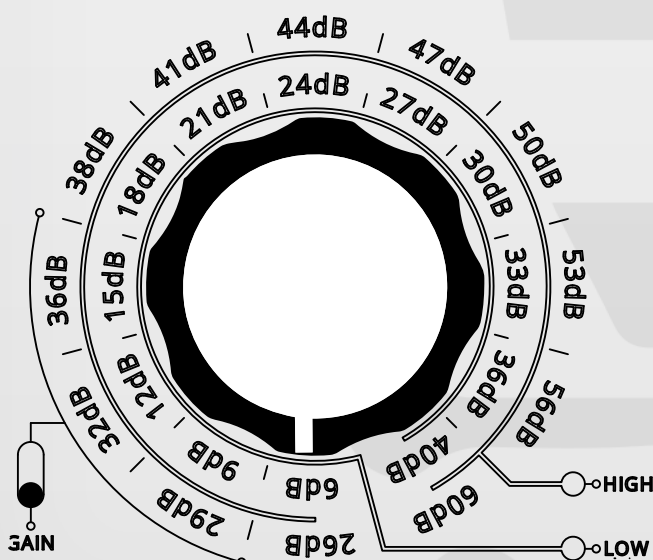
## Id INSTRUMENT DRIVE



It is possible to add extra distortion to the instrument input. To do this, select the instrument input on the input selector. Use the drive potentiometer to set the desired amount of added distortion.



## Gs GAIN SELECTOR DIAL



The gain of the Bishop can be set on the Gain Selector Dial. The Gain Selector Dial is divided into two sections, a Low and a High section. The **maximum amplification of the Low section is +40dB**, the **maximum amplification of the High section is +60dB**. It is possible to switch between the High and Low sections with the switch labeled Gain, and within the section it is possible to select the desired gain value with the gain rotary switch.

Switching between the High and Low sections is indicated by the scale illumination and the High and Low LEDs. There is an overlap between the selectable gain values on the High and Low scale. **Due to the structure of the preamplifier, the sound is different even if the same gain value is selected on the High or Low scale.**

## **Af** PREAMPLIFIER ADDITIONAL FUNCTIONS

**Phantom Power:** It can turn on the +48V voltage which is required for the operation of specific types of condenser microphones. The +48V only appears on microphone inputs. To activate the function, turn the function switch to the right position. The ON position is indicated by an LED.

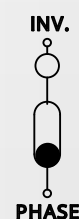


**Some types of microphones can be damaged if they are exposed to +48V. Always check if phantom power is required for the particular microphone. Before connecting or removing a microphone, always turn off the phantom voltage function!**

**PAD:** It lowers the gain of **microphone input** by **-20dB**. This may be necessary for certain sources, or useful for performing certain sound design tasks. To activate the function, turn the switch to the upper position. Activation of the function is indicated by an LED.

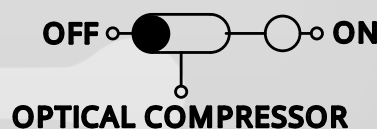


**Phase:** Reverses the **phase of the entire system**. This can be useful when recording with multiple microphones or when using Bishop in combination with other devices. To activate the function, turn the switch to the upper position. Activation of the function is indicated by an LED.



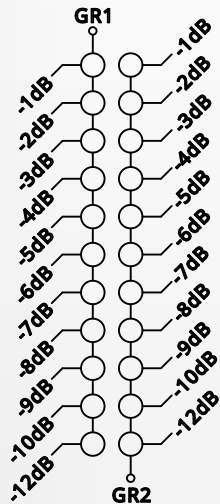
## **Oc** THE ONBOARD DUAL SLOPE OPTICAL COMPRESSOR

An integral part of the preamplifier section is an optical compressor with two break-off points instead of one. Thus, it provides significantly greater confidence and flexibility in recording situations. If you want to access the compressor functions, put the **Optical**



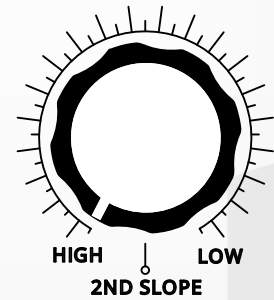
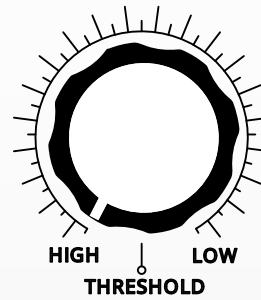
**Compressor switch** to the right position. The threshold values of the two break-off points can be regulated with two separate potentiometers. The potentiometer labeled **Threshold** controls the value of the first break-off point. The potentiometer labeled **2ND slope** controls the value of the second point. The amount of gain reduction can be monitored on two

LED scales. **GR1** shows the gain reduction at the first break point.

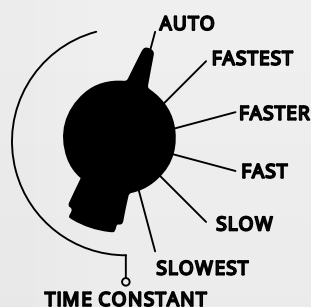


**GR2** shows the gain reduction at the second break point.

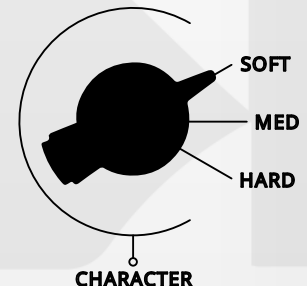
The compression ratio and knee value can be selected as a preset with the **Character switch**. The positions of the Character switch use descriptive names: "**Soft**", "**Medium**", "**Hard**". By definition, the soft position indicates a smaller compression ratio with a gentle knee. The medium position indicates a much higher compression ratio with a more angular knee. The hard position indicates an almost



limiter-like ratio with a sudden knee. The intervention speed of the compressor is intended to be modified by the **time constant parameter**. In Auto mode, the time constants of the compressor are

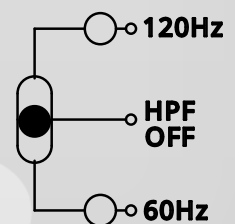


adjusted automatically depending on the dynamic conditions of the signal. In addition, four more stages are available from the fastest to the slowest. Due to the nature of the compressor, the attack and release values are set at the same time when selecting a time constant. In addition, the sound of the compressor can be fine-tuned by adjusting the threshold values of the two slopes, along very wide possibilities.



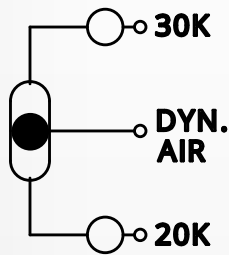
## **Fs** THE ONBOARD FILTER SECTION

The basic functions of the filter section include the **high-pass filter**. This is actually used to remove low frequency rumble, a useful addition to any preamplifier. It can be



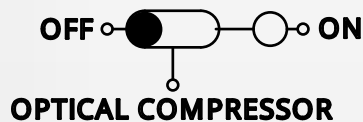


activated with the **switch labeled HPF**. The middle one is the off position. The upper position of the switch turns on a high-pass filter with a frequency of 120Hz with 6dB/oct order. The lower position of the switch turns on a high-pass filter with a frequency of 60Hz with 6dB/oct order.

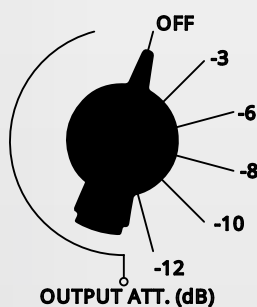


Another pillar of the filter section is the filter system implementing the **AIR function**. In this case, we mean a filter operating at the upper limit of the audible range and at a higher frequency. This creates a very careful shelving-like boost at the top of the audible frequency range and complex saturation products at the high frequency range, which makes it feel very airy and pleasant. There are two available frequencies assigned to the AIR function, which you can activate with the **Dyn Air switch**. The middle position of the switch is the off state. By turning the switch up, the **30KHz frequency** can be reached. By turning the switch down, the **20KHz frequency** can be selected. If the compressor is switched off, the effect of

the AIR function is static. **But if the compressor and the AIR function are switched on at the same time. The AIR function is implemented dynamically** in such a way that the greater the gain reduction on the compressor, the boost in the AIR band will be higher.



## At OUTPUT ATTENUATOR

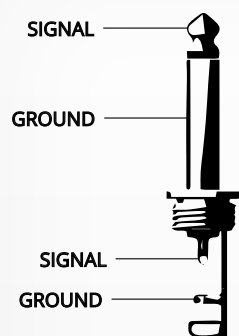


The Bishop Channel Strip has an output attenuator to make the most of the sound difference between the amplification modes and that the built-in optical compressor can be used most widely. You can attenuate a total of -12dB from the output level, using the six-position rotary switch, of which the first option is the off state. **Using the attenuator may reduce the signal/noise ratio of the device.**

## Sl SIDECHAIN LINK



There may be a recording situation where it is necessary to **SC. LINK**



use several Bishop Channel Strips simultaneously. So that all the functions of two Bishops, including the optical compressor, can be used in pairs, it is worth sharing the side-chain signal of the two optical compressors. This is possible using the **sc.link connector** on the back device. The sidechain-link can be connected using a TS Jack cable. With its help, the optical compressors of the two separate devices can be run together with an accuracy of  $\pm 2\text{dB}$ .

## Sp SPECIFICATIONS

INPUT IMPEDANCE	
Microphone	2KOhm
Line	18KOhm
Instrument	500KOhm

MAX. INPUT LEVELS		20Hz	100Hz	1Khz
Microphone	PAD Off	-2 dBu	+17 dBu	+20 dBu
	PAD On	+18 dBu	+37 dBu	+40dBu
Line		+18 dBu	+26dBu	+26 dBu
Instrument		0 dBu	0 dBu	0 dBu

OUTPUT IMPEDANCE	<150 Ohm		
MAX OUTPUT LEVEL	+30dBu		
NOISE FLOOR	< -70 dBu Unweighted		
SNR.	98 dB	10Hz-22Khz	< 1% THD

DISTORTION	
<0.03% @ 0dB Output, 1Khz	
<0.6% @+26dBu Output 1Khz	

INPUTS:	2x Balanced XLR 1x XLR/Jack Combo
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OUTPUT:	1x Balanced XLR
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DIMENSIONS:	483mm x 280mm x 89mm
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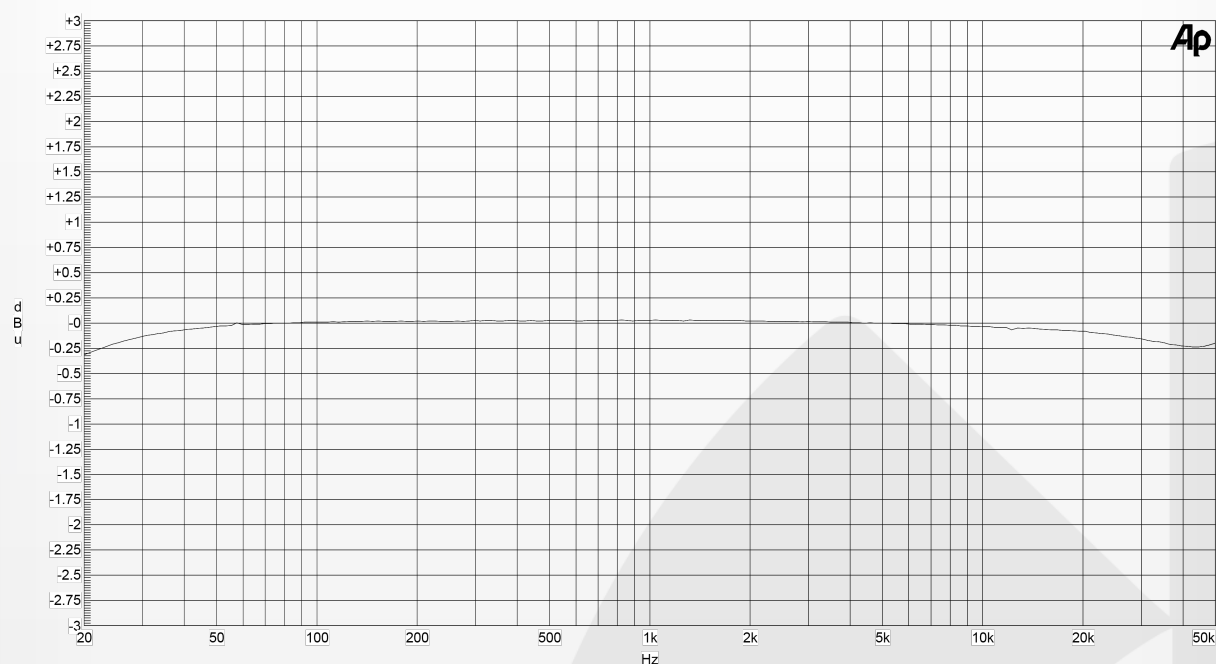
WEIGHT:	4.2 Kg
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MAINS VOLTAGE:	230V AC (EU version) 110V AC (US version)
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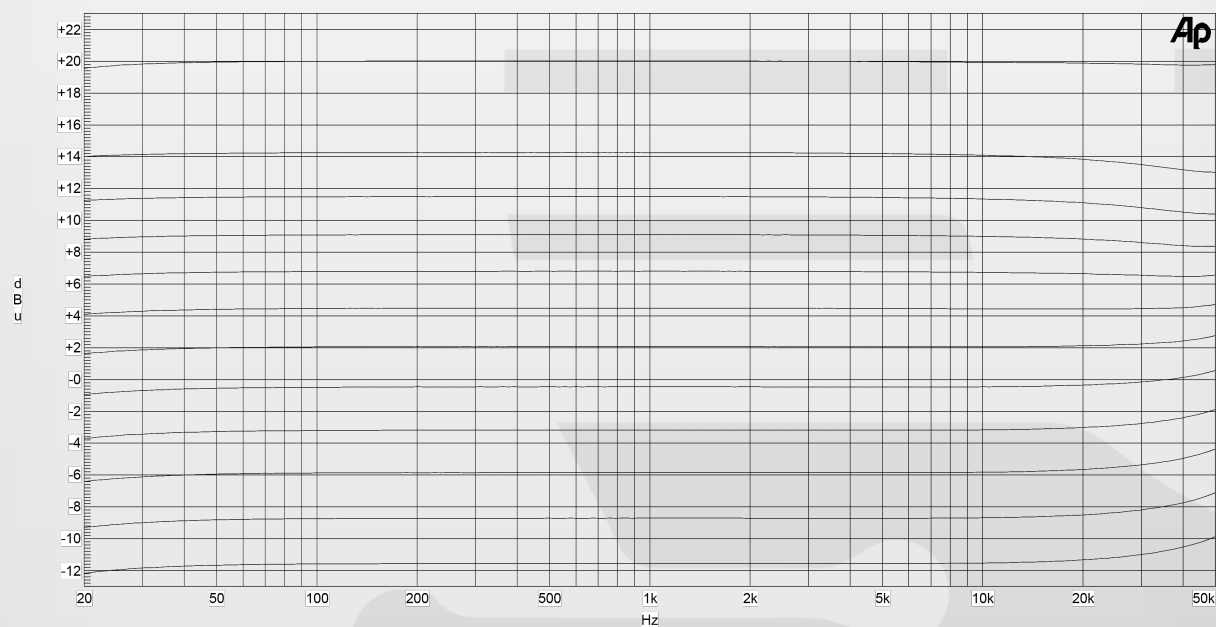
## LOW GAIN MAX FREQUENCY RESPONSE (MIC. INPUT)

-40dBu Input & 0dBu Output



## LOW GAIN POSITIONS FREQUENCY RESPONSE (MIC. INPUT)

-20dBu Input

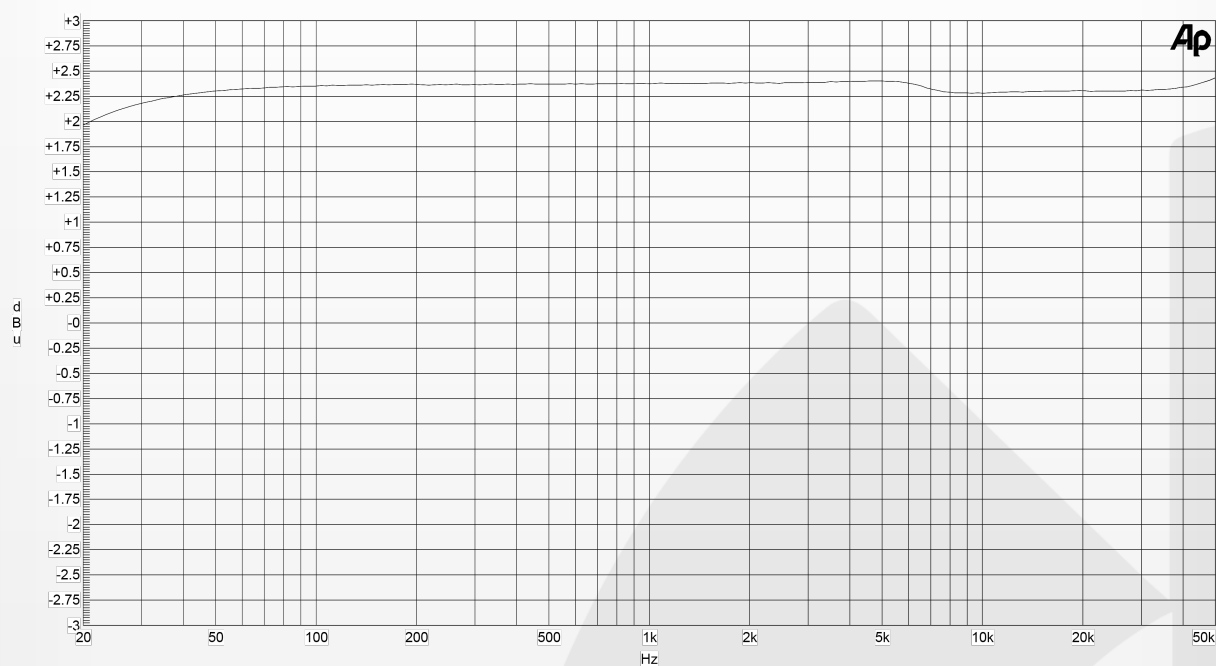






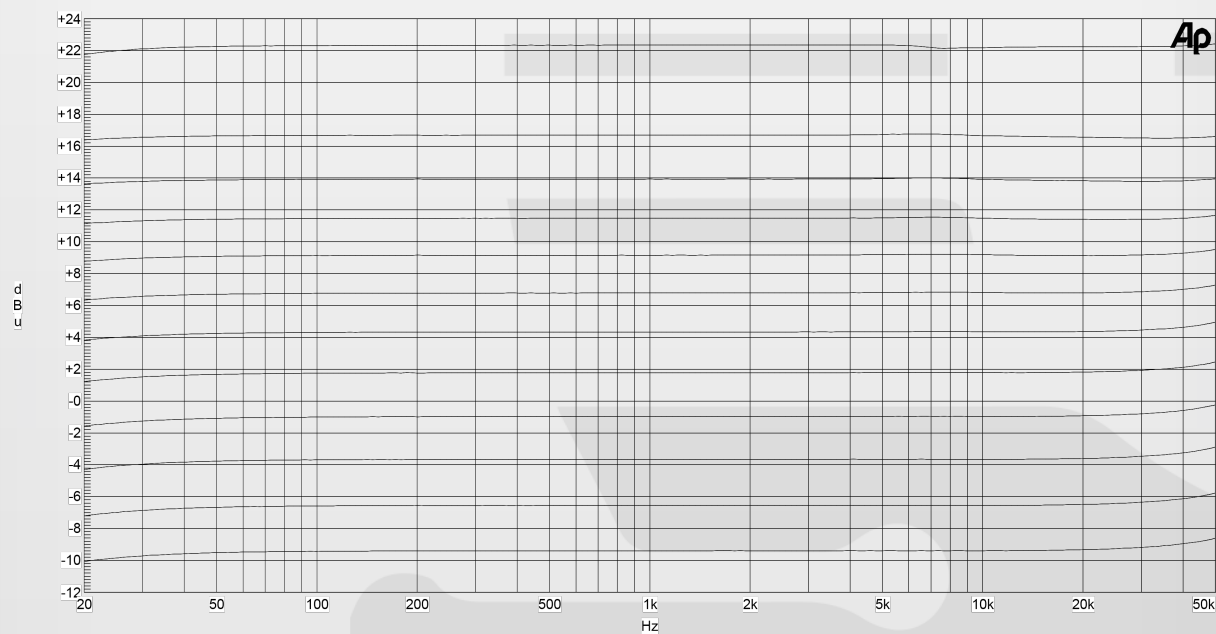
## HIGAIN MAX FREQUENCY RESPONSE (MIC. INPUT)

Input -60dBu @ Output +2.4dBu



## HIGAIN POSITIONS FREQUENCY RESPONSE (MIC. INPUT)

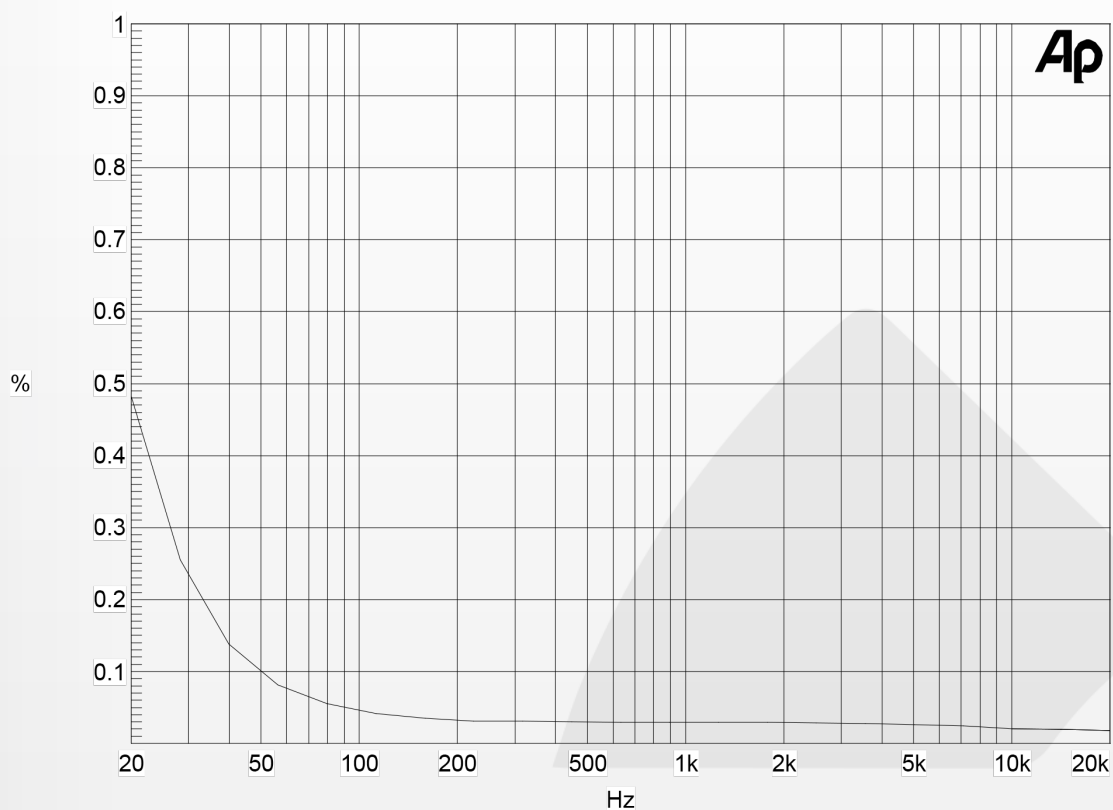
-40dBu Input



**Lg**

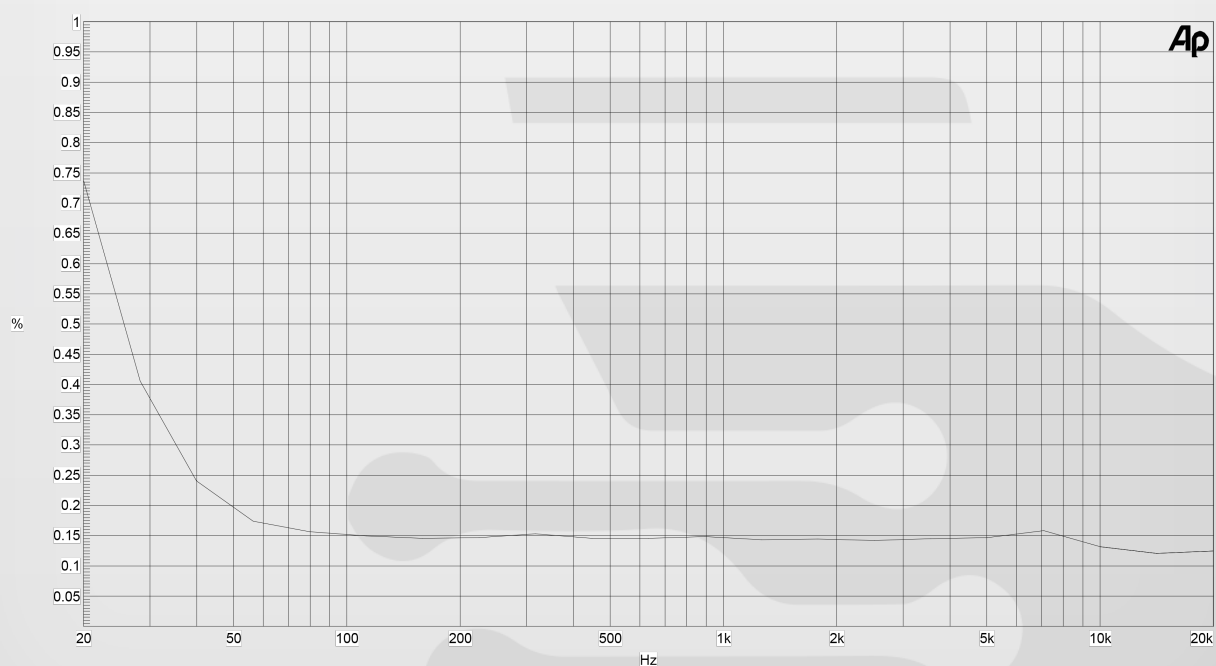
## LOWGAIN THD+N VS. FREQUENCY (MIC. INPUT)

-40dBu Input & 0dBu Output

**Hg**

## HIGAIN THD+N VS. FREQUENCY (MIC. INPUT)

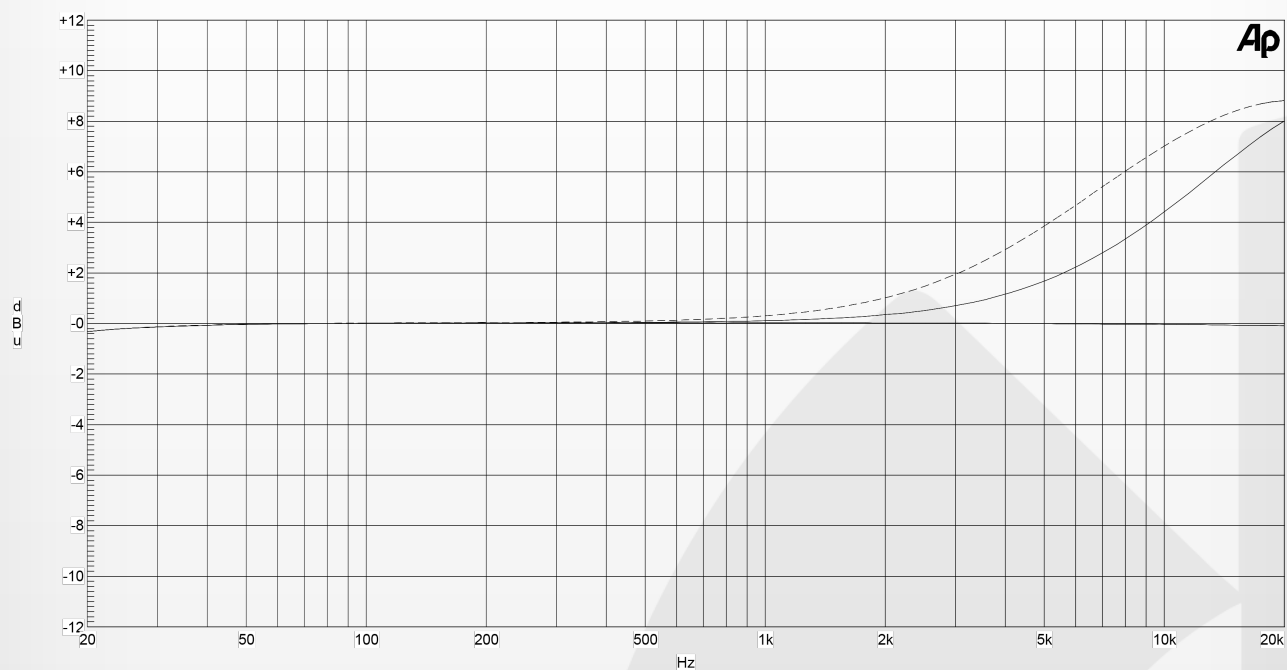
Input -60dBu @ Output +2.4dBu





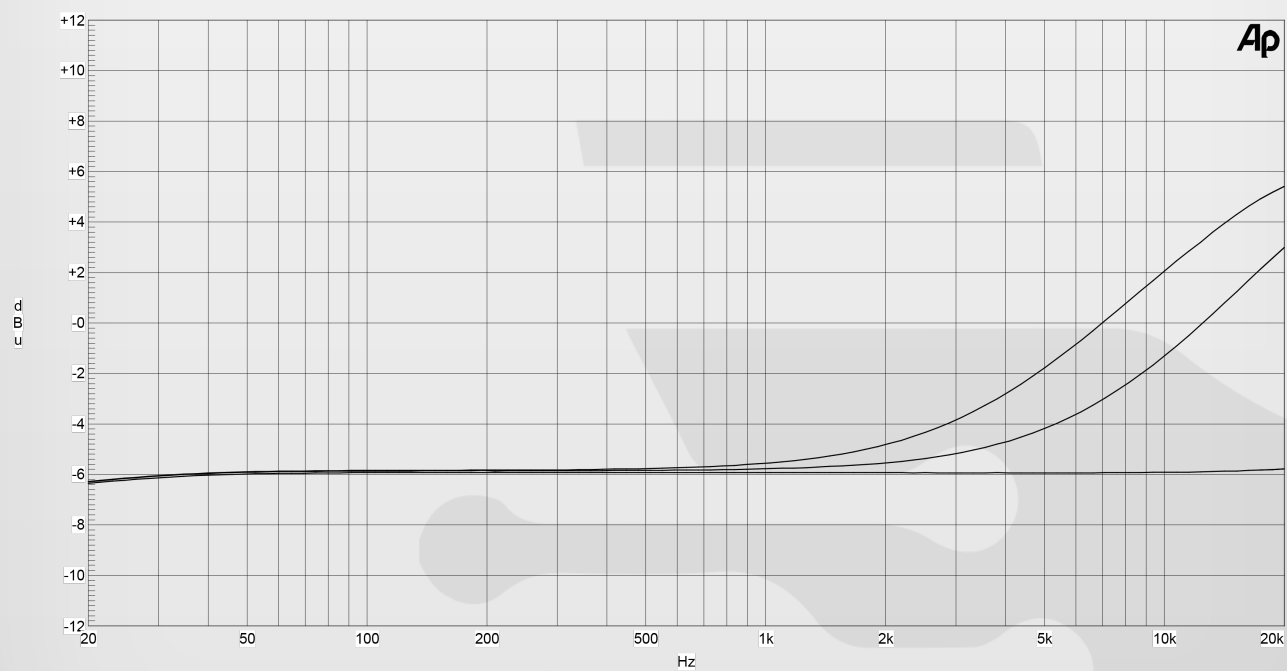
## DYNAMIC AIR FREQUENCY RESPONSE (MIC. INPUT)

Optical Compressor OFF



## DYNAMIC AIR FREQUENCY RESPONSE (MIC. INPUT)

Optical Compressor ON

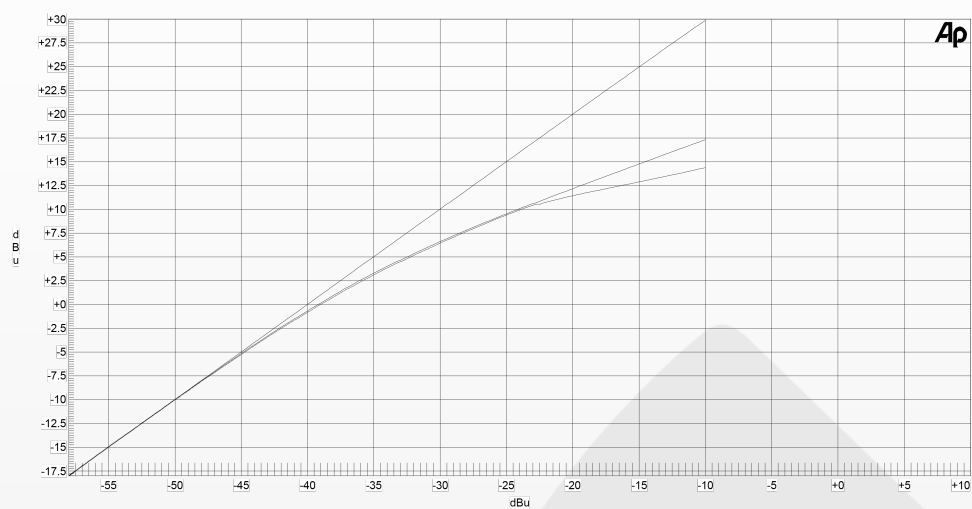




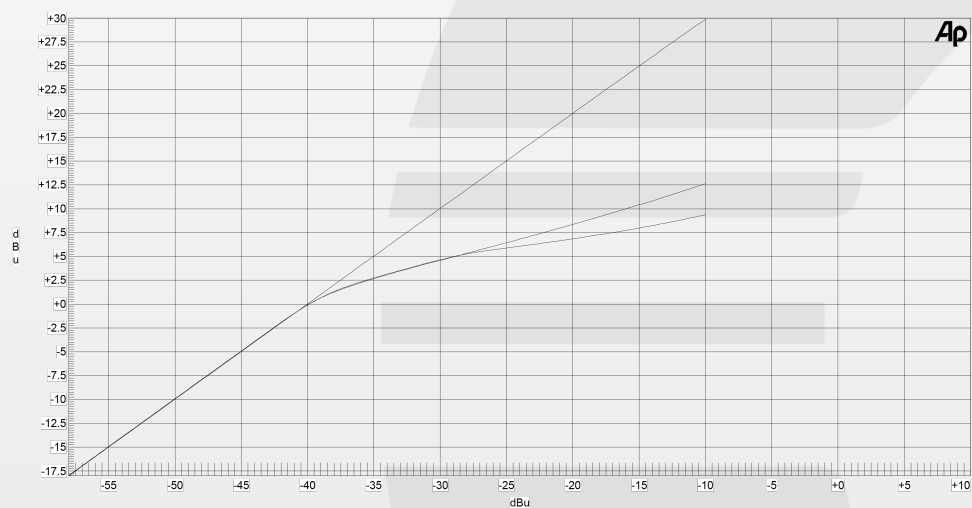


# OPTICAL COMPRESSOR CHARACTERISTICS

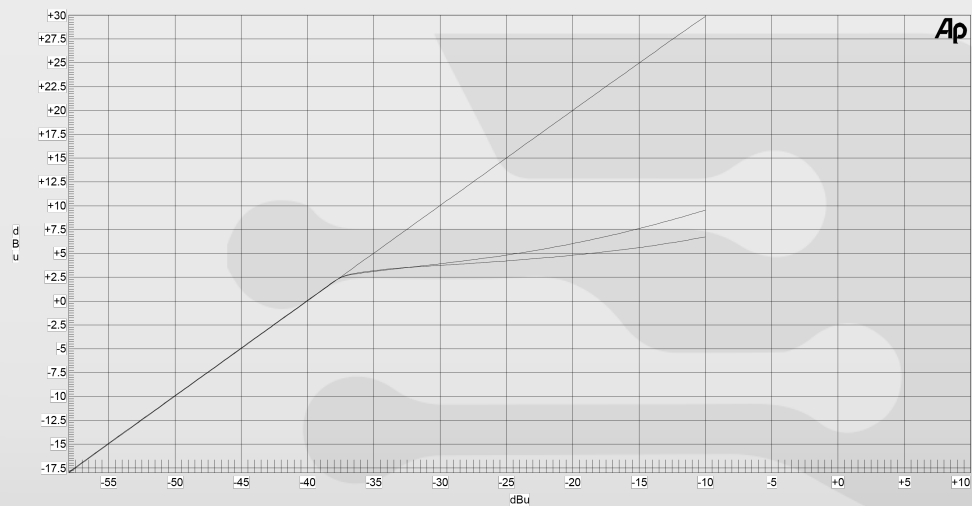
## Soft Mode



## Medium Mode



## Hard Mode



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