



Howie Weinberg Mastering Console



H W M
Howie
Weinberg
Mastering

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INTRODUCTION

Thank you for purchasing HWMC, the Howie Weinberg Mastering Console. To get the most out of your new plugin, make sure to read this user manual carefully and you will be well on your way to unleashing the full creative potential of very powerful processor in the digital domain.

OVERVIEW

The Diamond - HWMC – the Howie Weinberg Mastering Console has been created by Acustica Audio and Studio DMI, in collaboration with Howie Weinberg, the multi-Grammy®winning Mastering Engineer with 200+ platinum and gold records, 15 Grammys, 31 nominations, 19k credits and 25 billion streams to his name.

For the first time, Howie Weinberg opens the doors of his studio and brings you his 30 years of elite mastering experience in an exciting new product that embodies the incredible history, workflow and closely guarded mastering chain of one of Pro Audio's Gurus.



HOWIE WEINBERG

Golden ears make gold records...

With over 30 years experience as head mastering engineer at the world renowned Masterdisk Studios in NYC, Howie Weinberg has one of the most prolific careers in the music industry. Awarded with 4 Grammy nominations, 4 TEC Awards, over 3000 releases, 200 Gold Records, and an estimated quarter of a billion records sold, he is a the true master of mastering. Howie opened a truly unique mastering studio complete with the most advanced digital and analog equipment in the world situated in the Laurel Canyon Hills of Los Angeles. Today, Howie's mastering chain, carefully chosen over the years and Howie's workflow are available to you in an All-in-One plugin, HWMC – the Howie Weinberg Mastering Console.



**"What I've done here is to copy my workflow almost entirely,
from EQ to gain structure, compression and everything else"**
- Howie -



THE STORY BEHIND THE MASTERING CHAIN

Howie has embraced working in a hybrid setup, running signal from digital into a limited hardware setup and back into the digital realm, utilising the best of both worlds. This is the ideal place for him to be and this is what the plugin replicates with great accuracy. The centre-piece of the chain lies in a hardware Mastering console from a German manufacturer that for more than 30 years has developed professional audio gear for music, film, multimedia, hifi and broadcast, providing the robust sound that personifies Howie.

The other secret ingredients to his sound are a variety of DAC and ADC choices which provides him with a sound that has become synonymous with him.

These items of equipment are a culmination of choices built on his 40 years of Grammy winning experience.

A BRIEF SUMMARY OF THE IDEA BEHIND THE PLUGIN

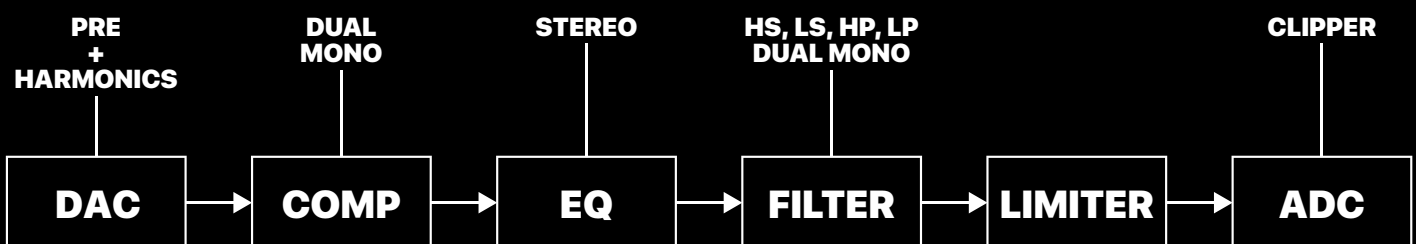
The plugin aims to capture the flexibility of Howie's hybrid setup, distilled into the perfect, single tool, to serve enthusiasts, amateurs, professionals and Howie himself, who wanted to incorporate it into his own daily workflow.

AT A GLANCE

HWMC - Howie Weinberg Mastering Console
features six different sections:

- **C** -> a 'Coral-style' [pun intended considering the AA world] Mastering Tube Compressor with four different switchable Compressor Operating Modes depending on the rectifier circuit emulations selected (GERM - GERM2 - SILIC - LED)
- **E** -> a 'Scarlet-style' [pun intended considering the AA world] Parametric Stereo Mastering EQ with LF/ MF, HF/MF bands offering ± 9 dB dB gain.
- **F** -> High and Low shelving filters plus continuously variable High-pass (from 20Hz to 20kHz) and Low-Pass (from 20Hz to 30kHz) mastering cutting filters with a 12 dB per octave slope implemented to Howie's specifications.
- **L** -> an ultra-transparent algorithmic Brickwall Limiter with oversampling-rate buttons (1x - 4x - 8x).
- **ADC** -> A Clipping stage that includes three different models (C1 - C2 - C3) from least to most aggressive, controllable via the Clipper knob and the oversampling-rate buttons (1x - 4x - 8x) from the sampling of different Howie's analog-to-digital converters.
- **DAC** -> a Preamp stage including three Modes from the sampling of different digital-to-analog converters, Howie's signature sound (Dcs - Mytek - Mytek+Tape).

Moreover the plugin includes a series of additional controls including: control link, M/S - LR, HQ, DIM buttons, a complete meter section and finally a series of Routing buttons/functions enabling you to change the plugin's internal routing. Check the 'Operation' chapter for more details.



Block scheme of the plugin

SYSTEM REQUIREMENTS

Modern computers are powerful enough to run many plugins at once. However, our technology requires more resources than algorithm-based software, so we recommend optimizing your system to work with high CPU loads and low audio latency.

All technical specifications of Acustica Audio products provided are intended to be estimates or approximations.

Due to numerous variables, no guarantees of compatibility or performance can be made.

The end-user is solely responsible for, prior to purchase, ensuring that the end-user's devices are compatible and meet the system requirements for Acustica Audio products.

	PC Windows		Apple macOS	
	MINIMUM	RECOMMENDED	MINIMUM	RECOMMENDED
OPERATING SYSTEM	Windows 10 1909 64 bits ^{(1) (9)}	Windows 21H1 10 64 bits ^{(1) (9)}	macOS 10.14 ^{(1) (9)}	macOS 10.15 ^{(1) (9)}
CPU	Intel i5 4 th generation ^{(2) (8)}	Intel i9 10 th generation ^{(2) (8)}	Intel i5 4 th generation ^{(2) (8)}	Intel i9 10 th generation ^{(2) (8)}
RAM	4 GB of RAM ⁽³⁾	64 GB of RAM ⁽³⁾	4 GB of RAM ⁽³⁾	64 GB of RAM ⁽³⁾
SSD	It depends on the product ⁽⁴⁾	It depends on the product ⁽⁴⁾	It depends on the product ⁽⁴⁾	It depends on the product ⁽⁴⁾
SCREEN RESOLUTION	FHD (1920x1080)	UHD (3840x2160)	FHD (1920x1080)	UHD (3840x2160)
PLUG-IN FORMAT	VST & AAX	VST & AAX	VST, AAX & AU	VST, AAX & AU
PLUG-IN ARCHITECTURE	64-bits		64-bits	
TRIAL / DEMO	30 Days ⁽⁵⁾		30 Days ⁽⁵⁾	
SUPPORTED DAW / NLE	Cubase 64-bits & Pro Tools 64-bits ⁽⁶⁾		Cubase 64-bits & Pro Tools 64-bits & Logic Pro X 64-bits ⁽⁶⁾	
AQUARIUS APPLICATION	YES & Mandatory		YES & Mandatory	
INTERNET CONNECTION	YES & Mandatory ⁽⁷⁾		YES & Mandatory ⁽⁷⁾	

(1) Case sensitive file systems are not supported.

(2) Intel i7/i9 X and Xeon processors need CORE 16 or superior. The CPU speed is more important than the number of CPU cores.

(3) In order to run more plug-ins instances it is always necessary to increase the amount of RAM.

(4) Each format needs three times more space than what the product is in order to download and decompress the installation files.

(5) Trial settings cannot be transferred from the trial to the commercial version.

(6) For others DAWs or NLEs, try trial before buy

(7) TCP/UDP ports 8080 and 443 should be open. Reliable and fast internet connection is recommended

(8) For Apple Silicon (ARM) computers, check compatibility before purchasing. AMD processors are not officially supported.

(9) For other operating systems, check compatibility before purchasing using the trial version.

IMPORTANT: Genuine Apple device with a valid serial number or valid volume ID on Windows operating systems is mandatory.

IMPORTANT: It is highly recommended to make a complete backup before making changes to your computer systems.

IMPORTANT: Acustica Audio cannot be held responsible for any loss or damage arising directly or indirectly from any error or omission in this manual.

PRODUCT DOWNLOAD AND AUTHORIZATION

When you purchase a product from our web shop, the registration is automatic.

Your newly purchased product can be downloaded via Aquarius, our dedicated free app for macOS and Windows. For more information please visit our website.

Make sure Aquarius is always updated to the latest version available. If you experience any issues during the authorization of your products uninstall the plugin(s) and then re-install them using the latest version of Aquarius.



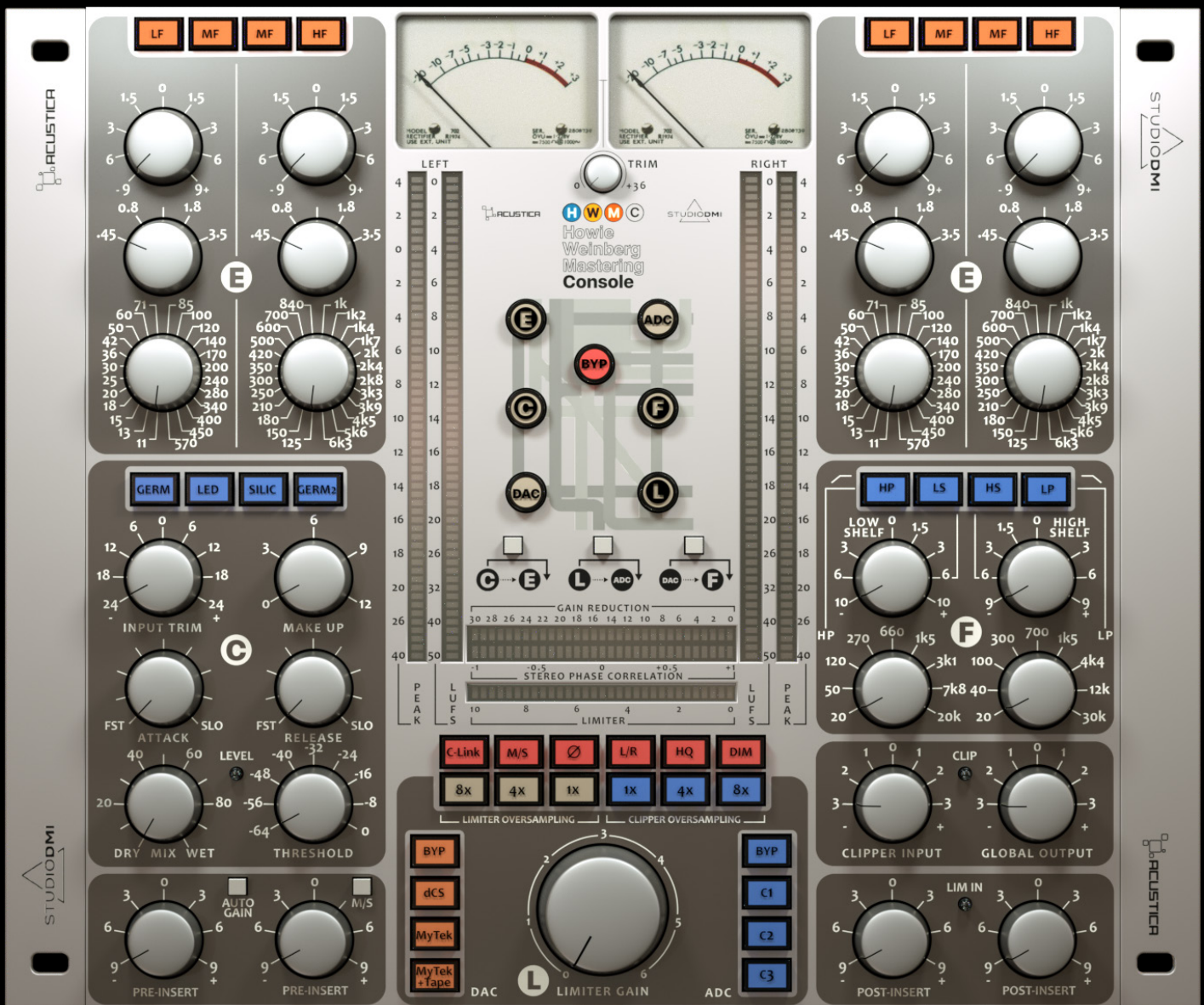
**"I love it,
and I can't imagine anyone else not loving this"**
- Howie -

OPERATION

The HWMC - Howie Weinberg Mastering Console brings together Howie's authentic collection of mastering equipment carefully selected over the years to provide the highest possible quality in mastering. This plugin happily reproduces the hardware chain that countersigns Howie's signature sound.

This plugin packs Howie's mastering chain into a powerful all in one interface with a sensational and distinctive sound to enhance and elevate your music.

CONTROLS



“C” SECTION



- **COMPRESSOR MODES**

The C section includes 4 different and mutually exclusive compression modes: GERM – GERM2– SILIC – LED, derived from a ‘Coral-style’ [pun intended considering the AA world] Mastering Tube Compressor with four different switchable Compressor Operating Modes, depending on the rectifier circuit emulations selected. Press the C button in the center of the plugin GUI to allow you to bypass (LAMP OFF) or activate (LAMP ON) the compressor.

- **INPUT TRIM**

A one-knob internal gain structure control linking the input and output gain stages with an inverse law. The control sets the input level from -24dB to +24dB of the plugin, and it is used to adjust the plugin’s internal level.

NOTE: Please keep in mind that we recommend that you calibrate your compressor input levels to: -18dBFS = 0dBu. In this way you will avoid any unwanted distortion or unpredictable behavior due to excessive input levels.

- **ATTACK**

The attack time control of the compressor from FAST to SLOW.

ATTACKS (ms)			
GERM	LED	SILIC	GERM2
4	9	3	55
20	95	12	100
30	120	19	280
45	200	27	380
60	300	33	450
70	390	40	560
90	450	50	650
110	520	61	750
150	600	73	910

- **RELEASE**

The release time control of the compressor from FAST to SLOW.

RELEASES (ms)			
GERM	LED	SILIC	GERM2
300	400	100	440
400	550	140	560
600	600	160	750
800	800	240	1000
1100	1100	290	1300
1200	1200	300	1600
1700	1700	400	2000
2200	2200	500	2600
3600	3600	800	3200

- **MIX**

This controls the proportion between the original (DRY) and ‘effected’ (WET) signal. In other words, it lets you balance the compressed signal with the uncompressed signal. Range: 0% to 100%.

- **THRESHOLD**

Sets the threshold of the compressor (range: -64 dB to + 0 dB).

- **MAKE UP**

This compensates for the compressor’s gain reduction. Gain range: from 0 dB to +12dB.

- **LEVEL**

This is an Overflow LED that warns about possible clipping and unpredictable behavior due to excessive input levels to the Compressor.

“L” SECTION



The L section includes an ultra-transparent algorithmic Brickwall Limiter with oversampling-rate buttons (1x - 4x - 8x) to further improve the quality of the processing. Press the L button in the center of the plugin GUI to allow you to bypass (LAMP OFF) or activate (LAMP ON) the limiter.

- **LIMITER GAIN**

Input gain sets the amount of gain that you're feeding into the limiter (range: from 0 to + 6 dB).

- **POST INSERT**

These knobs (Left-Right) work as Input controls of the limiter, Input levels range from -9dB to +9dB. An Overflow LED (LIM IN) has been added to this section, this warns about possible clipping and unpredictable behavior due to excessive input levels to the limiter.

- **LIMITER OVERSAMPLING BUTTONS**

These mutually exclusive buttons act exclusively on the Limiter section changing the oversampling rate (1x, 4x, 8x) to improve processing quality. Therefore with the enabled limiter oversampling buttons it is possible to increase the sampling frequency of the limiter signal being processed by a fixed multiple of: 1x - 4x - 8x.

NOTE: By engaging the 'High Quality' mode, the type of oversampling filters change from IIR to FIR, the definition and sound quality of the Limiter improves at the expense of CPU consumption.

“E” SECTION



The E section includes a 2-band stereo EQ offering $\pm 9\text{dB}$ gain for both Channels (Left-Right) with a bell response derived from a 'Scarlet-style' [pun intended considering the AA world] Parametric Stereo Mastering EQ. The LF band can be switched to MF, while HF band can be switched to MF.

- **EQ ACTIVATION BUTTONS**

LF – MF (x2) – These buttons allow you to select the desired EQ model for the LF and/or HF Frequencies bands, LAMP OFF bypasses the relative band. Press the E button in the center of the plugin GUI to allow you to bypass (LAMP OFF) or activate (LAMP ON) the equalizer.

• FREQUENCY CONTROL

Sets the center frequency variable for each band, both Channels (Left-Right) with bell response. LF band can be switched to MF while HF band can be switched to MF.

Available values for each band are:

- . Low Frequency (Bell) from 11Hz to 570Hz (24 steps)
- . Mid Frequency (Bell) from 125Hz to 6.3kHz (24 steps)
- . High Frequency (Bell) from 3.4kHz to 25kHz (24 steps)

• GAIN CONTROL

Gain control boosts or attenuates the chosen frequency band. It ranges from -9dB to +9dB.

• Q BUTTON

The Q button modifies the bandwidth of the Low Bell, Mid Bell and the High Bell frequency bands. The Q control is available for each parametric peaking filter for the LEFT and the RIGHT channel. It toggles between Wide (0.45) and Narrow (3.5).



“F” SECTION



The F section includes really smooth, gentle hi and low shelf filters with a 10kHz high shelf and a 100Hz low shelf plus High-pass and Low-pass filters with a slope of 12dB/octave. Press the F button in the center of the plugin GUI to allow you to bypass (LAMP OFF) or activate (LAMP ON) the filter.

- **LOW SHELF**

Low Shelf at 100Hz with a slope of 12dB/octave; It ranges from -10dB to +10dB. The Low Shelf can be activated or bypassed individually by clicking the LS blue button.

- **HIGH SHELF**

High Shelf Filter 10kHz with a slope of 12dB/octave; It ranges from -9dB to +9dB. The High Shelf can be activated or bypassed individually by clicking the HS blue button.

- **LOW PASS FILTER**

The Low Pass filter has a frequency range from 20Hz to 30kHz with a slope of 12dB/octave. The Low Pass filter can be activated or bypassed individually by clicking the LP blue button.

- **HIGH PASS FILTER**

The High Pass filter has a frequency range from 20Hz to 20kHz with a slope of 12dB/octave. The High Pass filter can be activated or bypassed individually by clicking the HP blue button.

“ADC” SECTION



The ADC section embodies the spirit of Howie’s mastering studio ADC options including a clipping stage with three different models (C1 - C2 - C3) ranging from the least to the most aggressive clipper. There are also oversampling-rate buttons (1x - 4x - 8x) plus a Bypass (BYP) to disable the Clipper.

- **CLIPPER MODES**

The ADC section includes 3 different and mutually exclusive Clipper modes: C1 - C2 - C3, derived from the meticulous sampling of equipment from Howie’s mastering studio, the fundamental components of his sound, representing his unfailing secret ingredients.

Press the ADC button in the center of the plugin GUI to allow you to bypass (LAMP OFF) or activate (LAMP ON) the clipper.

- **CLIPPER OVERSAMPLING BUTTONS**

These mutually exclusive buttons act exclusively on the ADC section changing the oversampling rate (1x, 4x, 8x) to improve the processing quality. Therefore with the limiter oversampling buttons it is possible to increase the sampling frequency of the Clipper signal being processed by a fixed multiple of: 1x - 4x - 8x.

NOTE: By engaging the 'High Quality' mode, the type of oversampling filters change from IIR to FIR, the definition and sound quality of the Clipper improves at the expense of CPU consumption.

- **CLIPPER INPUT**

This knob works as the Input gain control of the clipper. Input levels range from -3dB to +3dB.

An Overflow LED (CLIP) has been added to this section, this warns about possible clipping and unpredictable behavior due to excessive input levels to the clipper.

- **GLOBAL OUTPUT**

This knob is an output gain control of the plugin ranging from -3dB to +3dB.

“DAC” SECTION



The DAC section includes a complete Preamp stage with three mutually exclusive Modes from the sampling of different digital-to-analog converters in Howie's signature sound (Dcs - Mytek - Mytek+Tape) meticulously emulating their frequency response and harmonic distortion.

- **DAC MODES**

The DAC section includes 3 different and mutually exclusive DAC emulation modes: Dcs - Mytek - Mytek+Tape, derived from the meticulous sampling of equipment from Howie's mastering studio emulating their frequency response and harmonic distortion, with truly distinctive sound characteristics, the fundamental components of his sound, representing his unfailing secret ingredients.

- **BYP BUTTON**

Press this button to bypass the DAC section or as alternative:

Press the DAC button in the center of the plugin GUI to allow you to bypass (LAMP OFF) or activate (LAMP ON) this section.



ADDITIONAL CONTROLS



• BYPASS BUTTONS

These buttons in the center of plugin GUI allow you to bypass (LAMP OFF) or activate (LAMP ON) each individual section of the plugin by clicking on the button that identifies each of them (E – C – L – F – ADC – DAC), moreover there is a general Bypass that allows you to bypass the entire plugin chain in the very center.

• ROUTING BUTTONS

Activating one or more of the three buttons will allow you to change the internal routing of the plugin. You can choose between several blocks for more versatility. Please refer to the block configurations below for details:



Activating this routing option the Compressor section will be placed after the Equalizer section in the plugin chain.



Activating this routing option the Limiter section will be placed after the ADC section in the plugin chain.



Activating this routing option the DAC section will be placed after the Filter section in the plugin chain.

See page 4 to understand the default signal chain

- **OUTPUT VU METERS**

Displays the output level (Left/Mid) of the plugin.
Range IN: -20dB to +3dB.

- **COMPRESSOR GAIN REDUCTION METER**

Displays the gain reduction level applied by the compressor.
Range: -30dB to +0.

- **LIMITER GAIN REDUCTION METER**

Displays the gain reduction level applied by the limiter.
Range: -30dB to +0.

- **STEREO PHASE CORRELATION METER**

Displays the phase relationship of the stereo signal.

- **OUTPUT PEAK-LUFS METERS**

These Peak-LUFS meters measure the Left/Right output signal level.

- **TRIM**

This knob has been introduced to allow you to calibrate and fine-tune the behavior of the VU meters according to your needs.
If the knob is turned counterclockwise the corresponding value is 0 dBFS. In the central position (12 o'clock) it is calibrated to +18 dBFS while if it is rotated clockwise the value is +36 dBFS.
NOTE: The calibration is purely in terms of the Vu meter display so it does not affect the output volume of the plugin.

- **PRE INSERT**

These knobs (L-R) control the gain staging input of the plugin.
The behavior of these knobs change according to the AUTOGAIN button which can be set from the Standard INPUT GAIN ('AUTOGAIN' button engaged; lamp ON) to the INPUT 'TRIM' (AUTOGAIN button NOT engaged; lamp OFF). In both modes the INPUT range level is set between -9dB to +9dB.
For more details see the explanation of the AUTOGAIN button control.

- **AUTOGAIN**

This button affects the INPUT stage of the plugin.
It allows you to change the behavior of the INPUT control, switching from the "Standard INPUT GAIN" control to the "INPUT TRIM" control.

- With the AUTOGAIN button engaged (lamp ON) you enable the INPUT TRIM mode. In TRIM mode the HWMC INPUT knob is a “one knob” internal gain staging control automatically linking the input and output gain stages with an inverse law. The control sets the input level from -9dB to +9dB, and it is used to adjust the internal operational level of the plugin.

NOTE: That this is different from a Standard Input Gain control due to the linked output gain stage, which always ensures that whatever gain change is introduced at the HWMC’s input, the output level is automatically compensated, so that there is no perceived level change.

- With the AUTOGAIN button disabled (lamp OFF; by default) you switch to the “Standard Input Gain” of the plugin. In this mode the input gain knob controls the input level of the plug-in (from -9 dB to +9 dB) without effecting the output level.

NOTE: When the Pre-amp stage is bypassed (lamp OFF), the ‘Input Trim’ mode has no effect on the plug-in.

- **C-LINK**

By pressing this button you link the controls of the left and right channel sections that work in Stereo mode, namely: EQ, DAC (Pre-Insert), LIMITER (Post insert).

- **M/S**

This button allows you to enable the MID-SIDE configuration of the EQ plug-in section.

- **L/R**

This button allows you to enable the LEFT-RIGHT configuration of the EQ plug-in section.

- **PHASE REVERSE (ø)**

This button reverses the phase (ø) of the left and right INPUT signals.

- **HQ**

This button allows you to engage the ‘High Quality’ mode, by pressing it the definition and sound quality of the Clipper and Limiter plugin sections improve but at the expense of CPU consumption.

- **DIM**

This button, once pressed, automatically lowers the signal output by -20 dB.

TECHNICAL SUPPORT

Technical support is exclusively provided via our dedicated 'Freshdesk' platform. Please visit our website to learn more.

TROUBLESHOOTING AND BUG REPORT

We are constantly improving our products and adding new features. On-going issues, bugs, and rare crashes can still be possible. If you are experiencing problems with your product, please head over to our website and visit the dedicated knowledge base section. Many answers have already been answered, and ready-to-use solutions can be found there.

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Our products may recall some GUI elements of other companies but in this specific case we are not affiliated with them. For example, this product does not contain any algorithms or parts of directly related to SPL Electronics GmbH and therefore as a direct consequence, the GUI (Graphical User Interface) design may recall some graphical elements of the manufacturer, but the manufacturer, SPL Electronics GmbH does not approve or has not approved our product, because it is completely unrelated to it.



**"This is copied my workflow
that I've used on hundreds of hit records"**
- Howie -

PRESETS

HOW TO USE THE PRESETS

1. Open an instance of HWMC in your DAW.
2. Click the PRESET(ICON) on the top left of the plugin GUI.
3. Select from the LIST the “Preset_name” and click to load the preset.

PRESET LIST AND DETAILS

01 - HW 70s Punk
02 - HW 80s Rock
03 - HW 90s Hard Rock
04 - HW 00s Rock
05 - HW 80s Hip Hop
06 - HW 90s Hip Hop
07 - HW 00s Hip Hop
08 - HW 10s Hip Hop
09 - HW 20s Trap
10 - HW 80s Pop
11 - HW 90s Pop
12 - HW 00s Pop
13 - HW 10s Pop
14 - HW 20s Pop
15 - HW 90s Dance
16 - HW 00s Dance
17 - HW 10s EDM
18 - HW 20s Deep House
19 - HW Borza Start
20 - SS Classic
21 - SS Modern



**Howie
Weinberg
Mastering**

8331 Lookout Mountain Ave.
Los Angeles, CA 90046
www.howieweinbergmastering.com



Via Tortini 9, 26900, Lodi, Italy
www.acusticaudio.com



6839 Ponderosa Way
Las Vegas, NV 89118
www.studiosdmi.com