HDP-Express II™

PRE-AMP

Unlock the potential in your speakers

DEQX™

master the art of timing

HDP-Express II™

PRE-AMP

*Correct the speakers first, then the room
for dynamic, precise and powerful sound*

*Rectifies speaker frequency-response and timing errors,
adjusting thousands of frequency groups to arrive on time*

Master the art of timing

DEQX processors correct the distortion that all speakers make—electro-mechanical devices that they are—and offer room compensation as an added extra. While righting frequency-response errors as other units do, they also uniquely fix critical timing errors by adjusting thousands of frequency groups so that they arrive on time.

Other 'room correction devices' simply adjust amplitude response (uneven output at different frequencies) to offset room modes. But they can't address the fine details of phase coherence; the group-delay timing issues that manifest in all real-world speakers.

The results *are* startling; two-channel and surround systems open up in a dramatic way when timing, phase and amplitude accuracy are restored to the speakers, with judicious room compensation added.

DEQX HDP-Express II™

The Express II packs much of the new technology of our flagship HDP-4 Preamp Processor in a new, extraordinarily cost-effective design. The Express II uses professional-grade components and power supplies but we've kept the price of the Express II down by moving the front-panel controls to the remote while deleting the HDP-4's balanced analog and digital outputs for a simpler chassis.

Like its predecessor, the Express II provides DEQX Inline™ correction for your existing speakers, room and media. Plus, it does the impossible and precisely integrates one or a pair of subwoofers.

The Express II also supports 2- or 3-way active speakers for those opting for DEQX XO™ Active configurations with DEQX's linear-phase crossovers, now or in the future.

The Express II offers four hi-resolution digital inputs, accepting sample-rates including 24-bit/192k and two analog inputs (balanced XLR and single ended RCA) with 96k analog-to-digital conversion.

Measure (and correct) speakers first, then the room

In correcting the speakers—before the room—our comprehensive DEQX-Cal™ software generates correction filters for phase, timing coherence and frequency-response. Only then does DEQX-Cal measure from the listening area for room correction.

DEQX technology is unique.

It corrects speaker frequency-response and timing errors by adjusting thousands of frequency groups, depending on your speakers' measurements, so that they arrive at the correct time.

Traditional analog and digital EQ corrupts the timing coherence around the frequencies that they're trying to equalize for volume. DEQX Processors slow down on-time and early-arriving frequencies so that slower frequencies can catch up.

That just can't be done in the analog domain!

DEQX uses real computing horsepower to make that happen with a 240-megaflop, 32bit floating-point Digital Signal Processing Engine that essentially achieves zero distortion.

We're DEQXperts

A DEQXpert agent can run the comprehensive DEQX Cal™ software for you on a secure, remote connection for a surprisingly affordable price. You'll need a simple USB link to your PC (Windows compatible computer) using a measurement microphone and a broadband connection.

Or, if you prefer to calibrate it yourself, we can lend a hand via email or phone with tips and directions on getting the best from your setup.

For more information and our dealer list, visit: **deqx.com** Get DEQXified today!

*Unique technology that makes
it easy to immerse yourself
in music and video*
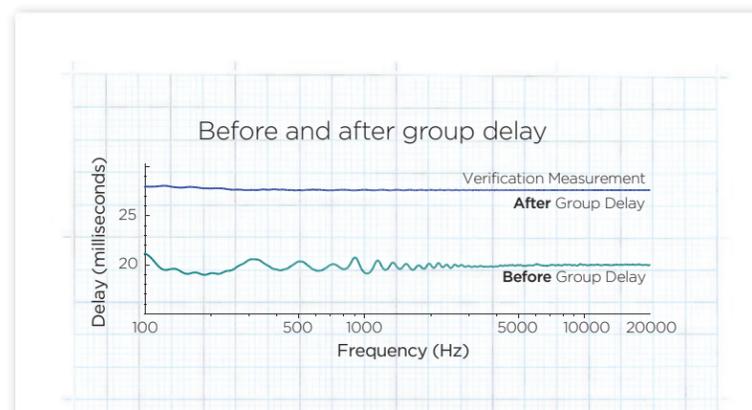
The Forensic Tone Control

The remote control features Standby, Profile Select, Volume, Mute and Input Select, and what must be the world's most powerful tone controls.

Its three bands include bass, mid and high with up/down buttons for +/- 1dB adjustments.

Bass shelf defaults to below 100Hz and high shelf above 3kHz, but frequency is user definable.

The Mid band is fully parametric and adjustable from the remote. Its center frequency can be set in octaves from lowest bass to highest highs then fine-tuned in semitones.

Bandwidth is from one semitone (1/2th octave) to four octaves wide. And you can save settings to 99 presets.

Before and after group delay

Verification Measurement
After Group Delay

Before Group Delay

Delay (milliseconds)
25
20
100   500   1000   5000   10000   20000
Frequency (Hz)

HDP-Express II™ Specifications

Stereo inputs
    Analogue: RCA unbalanced, XLR balanced
    Digital: TOSLINK, S/PDIF BNC, S/SPIF RCA, AES3 XLR

Stereo outputs
    Analogue: Low, Mid (or full-range), High: RCA unbalanced

Measurement mic input: XLR balanced with 48V phantom power

Mains input voltage: 100V-240VAC, 50-60Hz • Power consumption: 30VA

Dimensions: height: 2U / 97mm • depth: 325mm • width: 430mm

DSPs: Dual Analogue Devices SHARC 32-bit floating point

Analogue input maximum levels
    Balanced XLR: +17 dBu
    Unbalanced RCA: +11 dBu
    Input impedance (balanced and unbalanced): 50 kohms

Analogue output (jumper set) maximum levels
    Maximum level: +15 dBu

Total harmonic distortion: <0.0008% (analogue–analogue)

PC connections: USB or RS232

Crossover slope (software selectable): up to 300dB/octave

Latency: from 2.5ms, typically 15ms with speaker correction filters (video sync OK)

Due to our policy of continuous product improvement the above specifications may change without notice.

Your DEQX dealer: