



# OPTIMUM Series

HIGH OUTPUT DIGITAL EQ SUBWOOFERS

Optimum-8, Optimum-10, Optimum-12



Optimum-12

Optimum-10

Optimum-8

Powerful bass from tiny cabinets has never looked so good! Beautiful styling, unmatched performance, low distortion, ease of use, and incredible dynamic output; it's just what you'd expect from Velodyne Acoustics, the #1 rated subwoofer company for over 25 years.

## Features

- *Tiny cabinet dimensions*
- *An intuitive front panel interactive display*
- *One-button 7-band room bass correction*
- *DSP digital control*
- *Full feature remote control*
- *4 customized listening mode presets*
- *Night-mode*
- *Dynamic Drive Control*
- *Patented Energy Recovery System amplifiers (2400 watts Dynamic Power)*
- *Dual layer voice coil*



## Incredibly Small

The Optimum Series subwoofers may be easily hidden in a corner or built into a cabinet thanks to their compact size, sealed cabinet and single front firing driver design. However, with their elegant sculpted styling in either real cherry veneer, or gloss black lacquer, you will probably want to show them off. Whether you hide them or proudly display them, you'll be amazed at the impact, bass extension and output of these compact subwoofers.

## Room Bass Correction

You don't really care what a subwoofer does in some special room. Your room and every other real room is different, creating its own set of challenges to getting top bass performance. You want great bass in your room, right where you're sitting. Just place the included calibrated microphone in your favorite seating position, and simply push the "EQ" button on the remote control. The Optimum subwoofer automatically adjusts its digital equalizer to give you the best bass performance right at your seat.

## Convenient Remote Control with Instantaneous Feedback

Remote controls are very convenient, but can be a problem if you can't tell what and how much you changed. The front panel interactive display tells you exactly what is going on with an intuitive, instantaneous readout. You can adjust volume, turn on or off the front LED, correct phase, limit output for late night listening with "Night Mode", and, with the touch of a button, dial in the right bass for Movies, Jazz/Classical, Rock/R & B, or Games.

*Never again will you have to get up and reach behind your subwoofer to adjust for each different source you might choose.*

## DSP Controlled

The Optimum subs use Texas Instruments DSP chips to digitally tune the subwoofer more accurately than any analog system, producing louder, lower, more accurate bass. In its computer memory are specific equalization curves and output parameters to allow you, with one touch on your remote control, to get the exact bass you want for any source.

## “Green” Digital Amplifiers

Each subwoofer is driven by Velodyne’s patented “Energy Recovery System” amplifier that delivers 2400 watts dynamic power, 1200 watts of continuous RMS power at over 95% efficiency. You get all the impact and excitement of the most dramatic special effects and the lowest musical frequencies with detail and definition without wasting energy.

## Linear Drivers

The Optimum drivers feature multi-layer, Kevlar reinforced, resin cones mounted in die-cast aluminum baskets with massive magnet structures. These drivers incorporate Velodyne’s unique inside/outside wound “Dual-Tandem” voice coils that assure linear travel, and limit distortion.

## Low Distortion

Since its inception in 1983, Velodyne has focused on the tight, accurate, musical bass that has made our subwoofers world famous. The Optimum subwoofers use an active system that limits the amplifier’s audible distortion, keeps the woofer from being overdriven, and reduces the overall distortion level to less than that of competitive subwoofers.

## SPECIFICATIONS

| Model   | Optimum-8  | Optimum-10   | Optimum-12   |
|---|--|--|--|
| Woofer  | 8" forward firing<br>(6.5" piston diameter)              | 10" forward firing<br>(8" piston diameter)               | 12" forward firing<br>(9.7" piston diameter)             |
| Amplifier<br>Class D                                | 2400 watts Dynamic<br>1200 watts RMS Power               | 2400 watts Dynamic<br>1200 watts RMS Power               | 2400 watts Dynamic<br>1200 watts RMS Power               |
| High Pass Crossover                                 | 80Hz (6 dB/octave)                                       | 80Hz (6 dB/octave)                                       | 80Hz (6 dB/octave)                                       |
| Low Pass Crossover<br>(Adjustable)                  | 40-135 Hz<br>12 dB octave initial, 24 dB octave ultimate | 40-135 Hz<br>12 dB octave initial, 24 dB octave ultimate | 40-135 Hz<br>12 dB octave initial, 24 dB octave ultimate |
| Frequency Response<br><br>Overall<br>(+/-3 dB)      | 16-240 Hz<br>26-135 Hz                                   | 13-240 Hz<br>23-135 Hz                                   | 13-240 Hz<br>21-135 Hz                                   |
| Harmonic Distortion                                 | <5% (typical)  | <5% (typical)  | <5% (typical)  |
| Magnet Structure                                    | 204 oz.<br>(12.7 lbs)                                    | 346 oz.<br>(21.6 lbs.)                                   | 346 oz.<br>(21.6 lbs.)                                   |
| Voice Coil  | 2.5" Dual Layer<br>inside/outside wound                  | 3" Dual Layer<br>inside/outside wound                    | 3" Dual Layer<br>inside/outside wound                    |
| Inputs  | Line and Speaker Level                                   | Line and Speaker Level                                   | Line and Speaker Level                                   |
| Outputs   | Line-level, 80Hz up                                      | Line-level, 80Hz up                                      | Line-level, 80Hz up                                      |
| Phase   | 0°, 90°, 180°, 270°                                      | 0°, 90°, 180°, 270°                                      | 0°, 90°, 180°, 270°                                      |
| Video Shielded                                      | No   | Yes  | Yes  |
| Dimensions (H/W/D)<br>(inc. feet, grille and knobs) | 11.2" x 10.7" x 14"<br>(28.4 x 27.2 x 35.6 cm)           | 13.5" x 13" x 15.4"<br>(34.3 x 33 x 39 cm)               | 15.5" x 15" x 18.5"<br>(39.4 x 38 x 47 cm)               |
| Cabinet   | Sealed enclosure   | Sealed enclosure   | Sealed enclosure   |
| Finish  | Hand-rubbed black gloss lacquer<br>or cherry veneer      | Hand-rubbed black gloss lacquer<br>or cherry veneer      | Hand-rubbed black gloss lacquer<br>or cherry veneer      |
| Accessories   | Mic, mic stand, and<br>remote control                    | Mic, mic stand, and<br>remote control                    | Mic, mic stand, and<br>remote control                    |
| Shipping Weight (approx.)                           | 33 lbs. (15 Kg)  | 43 lbs. (20 Kg)  | 49 lbs. (22 Kg)  |



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