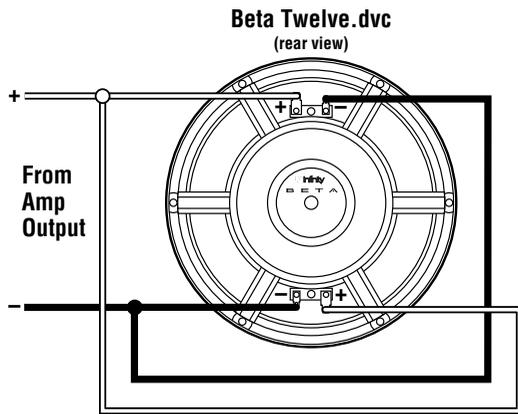
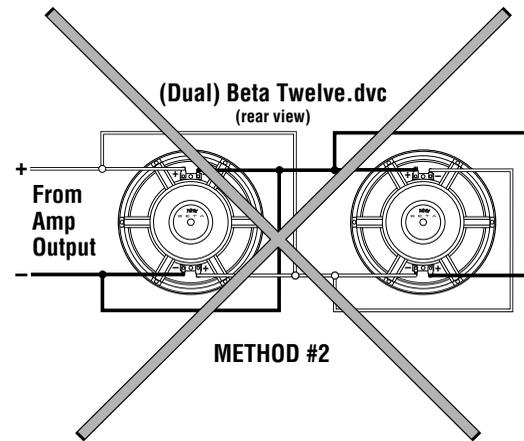
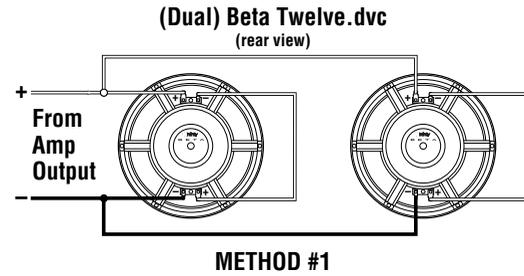


## BETA TWELVE.DVC 2-OHM (PARALLEL) WIRING

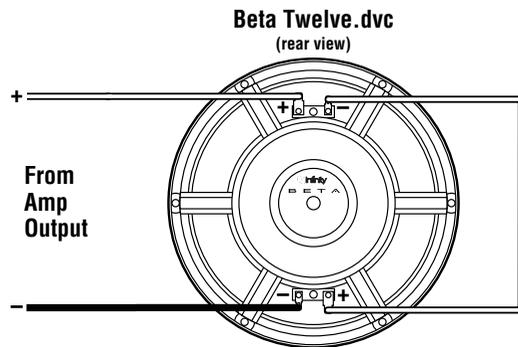


## BETA TWELVE.DVC DUAL-SUBWOOFER WIRING

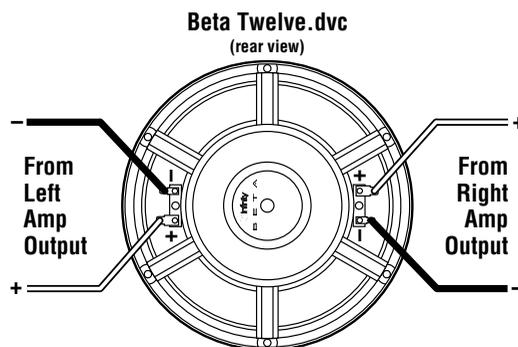


**IMPORTANT:** When connecting two Beta Twelve.dvc subwoofers together, use Method #1 to create a net 4-ohm impedance. NEVER USE METHOD #2, since most amplifiers cannot fully control driver movement in this configuration.

## BETA TWELVE.DVC 8-OHM (SERIES) WIRING



## BETA TWELVE.DVC SUMMED-MONO WIRING



### DECLARATION OF CONFORMITY



We, Infinity Systems A/S  
Kongevejen 194B  
DK-3460 Birkerød  
DENMARK

declare in own responsibility, that the Beta Twelve.dvc subwoofer is in compliance with technical standards EN 50 081-1/1992 and EN 50 082-1/3.1995

Steen Michaelsen  
Infinity Systems A/S  
Birkerød, DENMARK, 4/96

# Infinity **BETA** Twelve.dvc 12" Subwoofer CAR AUDIO INSTRUCTIONS

Thank you for purchasing an Infinity Beta Twelve.dvc 12" Subwoofer. You've selected a premium product that offers superior performance and advanced materials, resulting from over 25 years of loudspeaker design. This Infinity product is made with our ongoing dedication to create the best consumer audio products possible. As a result, you can expect your new Beta Subwoofer to provide you with many years of listening enjoyment.

Refer to *Subwoofer Enclosure Trade-Offs* (on the inside pages) for help in selecting an enclosure type and alignment. Also, review the wiring diagrams (on the back page) on how to connect the subwoofer for 2-ohm, 8-ohm, and summed-mono applications.

Each Infinity Beta Twelve.dvc 12" Dual Voice-Coil Subwoofer is covered by our limited parts and labor warranty (see the enclosed warranty card). Keep your original dated bill of sale in case warranty service is required.

**IMPORTANT:** Installation of automotive stereo components can require extensive experience in dealing with a variety of electrical, and mechanical procedures, including subwoofer box building. Although these instructions explain how to install a Beta Subwoofer in a general sense, they do not show the exact installation methods for your particular vehicle. If you do not have the experience, do not attempt the installation yourself; instead ask your Authorized Infinity Car Audio Dealer about professional installation options.

### PRECAUTIONS

- Always wear protective eyewear when using tools.
- Turn off all audio systems and other electrical devices before starting the installation.
- Disconnect the (-) negative lead from your vehicle's battery.

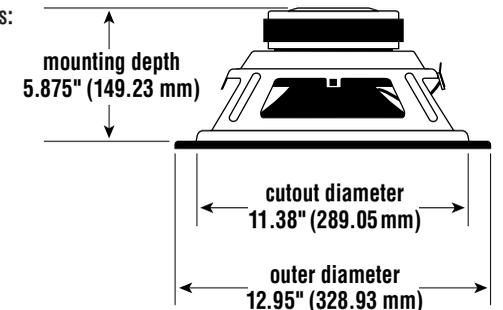
- Locate and note all fuel lines, hydraulic brake lines, and electrical wiring. Use extreme caution when cutting or drilling in and around these areas.
- Check clearances on both sides of a planned mounting surface before drilling any holes or installing any screws.

### THIELE-SMALL PARAMETERS

FREE-AIR RESONANCE:	$F_s$ (Hz)	22.00
COMPLIANCE VOLUME:	$V_{AS}$ (FT <sup>3</sup> )	5.60
	$V_{AS}$ (LITERS)	158.00
MECHANICAL Q:	$Q_{MS}$	7.88
ELECTRICAL Q:	$Q_{ES}$	0.25
TOTAL Q:	$Q_{TS}$	0.25
MAXIMUM EXCURSION:	$X_{MAX}$ (IN)	0.39
	$X_{MAX}$ (MM)	10.00
VOICE COIL DC RESISTANCE:	$R_E$ (OHMS)	2.80

### SPECIFICATIONS

DIAMETER:	12" (304.8 mm)
SENSITIVITY (2.83 V @ 1 m):	94 dB
POWER HANDLING:	275 W <sub>RMS</sub> PER VOICE COIL
FREQUENCY RESPONSE:	20 ~ 400 Hz
NOMINAL IMPEDANCE:	4 OHMS PER VOICE COIL
DIMENSIONS:	



## SUBWOOFER ENCLOSURE TRADE-OFFS

Subwoofer enclosures are classified as sealed (acoustic suspension) or ported (bass-reflex), and can be built in many configurations. Here we discuss three popular box types and encourage you to compare their response curves, noting the differences in Beta Twelve.dvc output level and frequency response versus volume in sealed, vented, and single-reflex band-pass enclosures.

A sealed enclosure is the smallest and simplest to build, with high power handling, good phase coherence, and the most predictable response, at the expense of somewhat diminished sound output. If amplifier power is not a concern, this is the best choice for most systems, providing the highest output at the lowest frequencies.

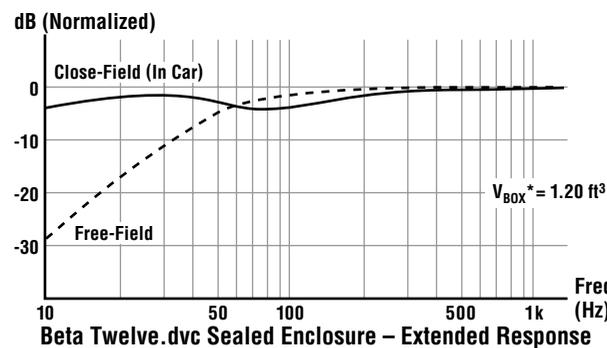
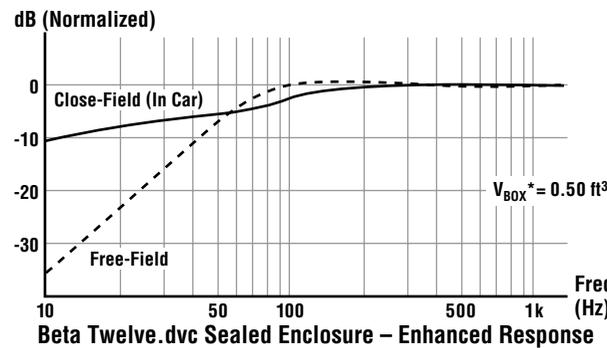
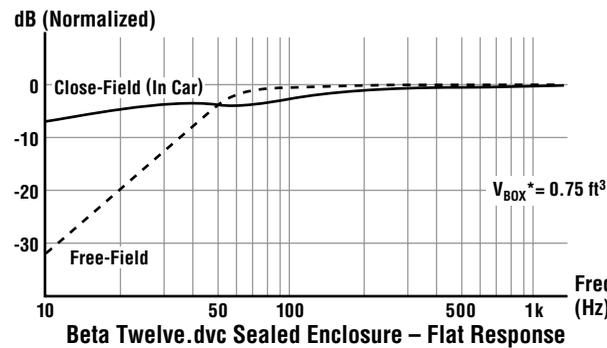
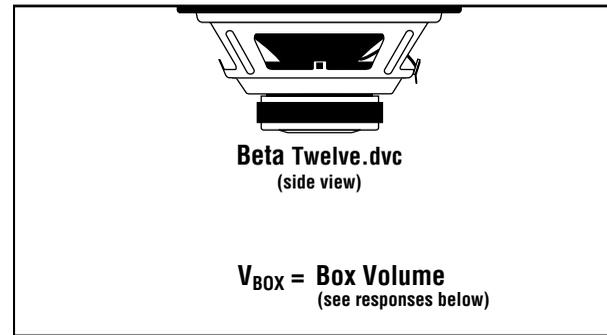
A vented enclosure adds a port (or vent) tuned to the speaker's resonance in the box to help boost sound output by "tuning" the rear sound waves so they add to the front ones. It is more efficient than a sealed box above the tuned frequency, but more difficult to build properly. For frequencies below the tuned range, output is lessened due to sound cancellation, and there is a 180-degree phase shift at the tuned frequency. Other drawbacks are the increased box size for the added port and diminished power handling due to woofer over-excitation at frequencies below the tuned frequency.

A single-reflex band-pass enclosure counteracts the sound cancellation properties in vented designs by isolating the subwoofer from the port within its own enclosure. It offers higher power handling, and an automatic band-pass response to help roll off higher frequencies. However, it has a 180-degree phase shift at the tuned frequency. Also, complexity and size are increased, due to separate front and rear chambers, and it requires adding substantial midbass drivers elsewhere in the car.

We recommend a sealed enclosure for the Beta Twelve.dvc. Depending on your taste in music, you can select a box volume for a flat, enhanced, or extended bass response (see graphs on right). The flat response is optimum for all enclosures and types of music. The enhanced sealed box provides a "tighter" bass, great for rock and rap. An enhanced vented box has increased output, but with diminished transient response and power handling. The extended sealed box is more efficient at the lowest frequencies, providing added bass boost for jazz and classical music, but with diminished power handling. The extended response curve provides the best power handling for vented enclosures.

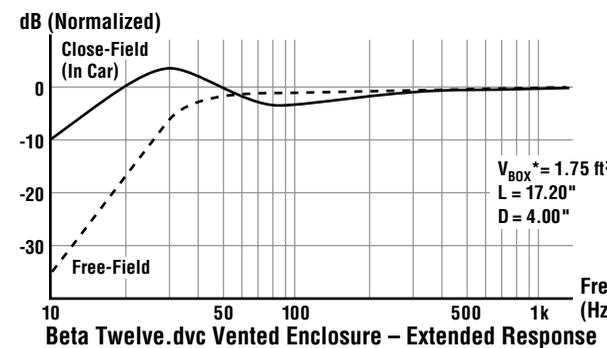
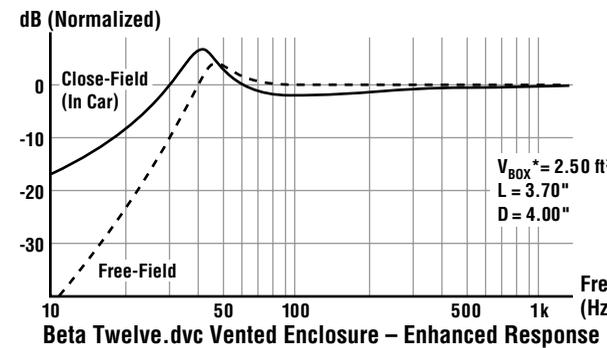
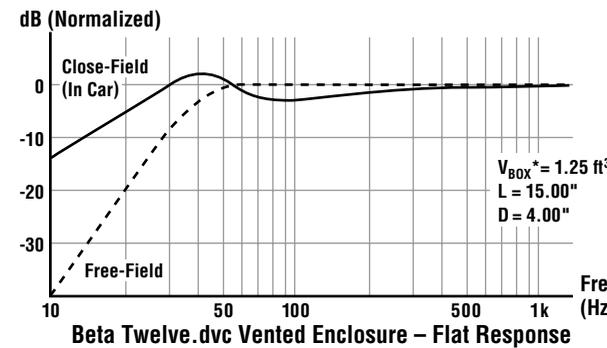
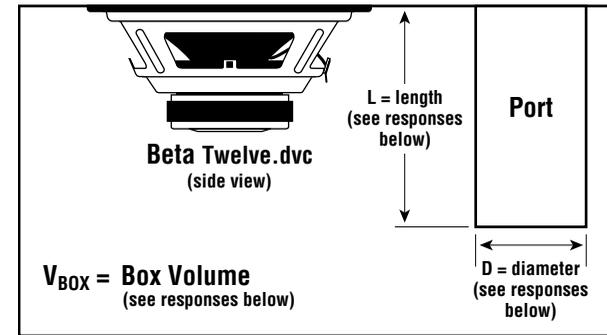
For more help, please call Infinity technical support at:  
(800) 553-3332

## BETA TWELVE.DVC SEALED ENCLOSURE



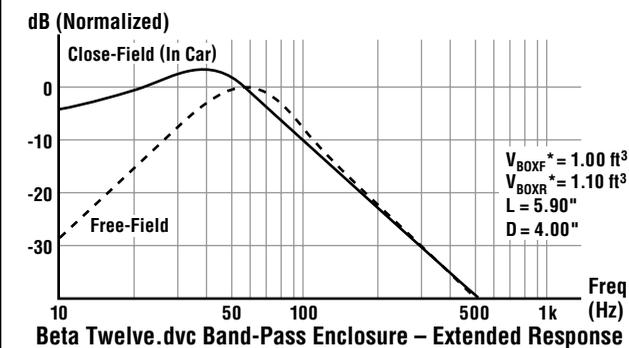
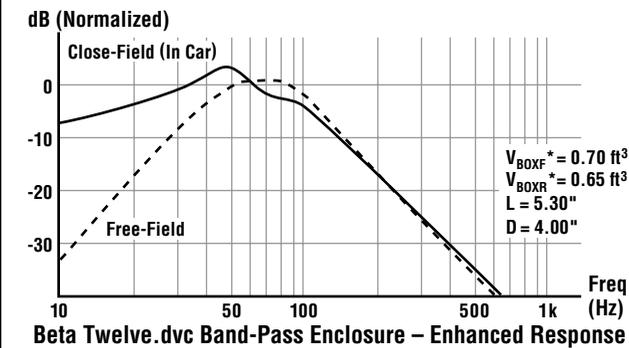
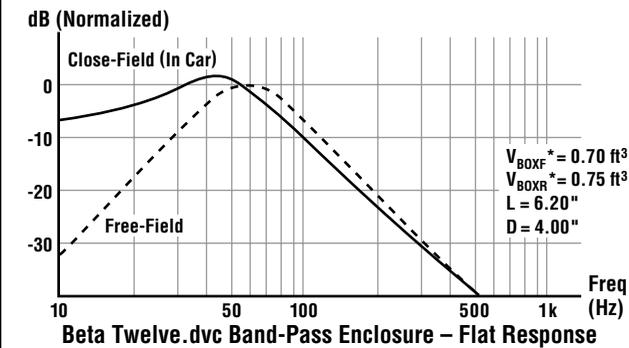
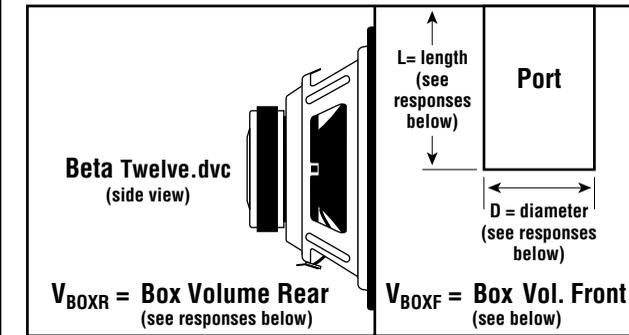
\*If filling is desired, reduce box volume by 20%.

## BETA TWELVE.DVC VENTED ENCLOSURE



\*If filling is desired, reduce box volume by 20%.

## BETA TWELVE.DVC BAND-PASS ENCLOSURE



\*If filling is desired, reduce box volume by 20%.