

R-Series SUBWOOFER
HAUT-PARLEUR D'EXTRÊMES GRAVES R-Series
APPLICATION GUIDE
GUIDE D' APPLICATION

R-W12D4

12 Inch Dual Voice Coil Subwoofer (4Ω)+(4Ω)
Haut-parleur d'extrêmes graves à double bobine 12 po (4Ω)+(4Ω)

R-W12D2

12 Inch Dual Voice Coil Subwoofer (2Ω)+(2Ω)
Haut-parleur d'extrêmes graves à double bobine 12 po (2Ω)+(2Ω)

R-W10D4

10 Inch Dual Voice Coil Subwoofer (4Ω)+(4Ω)
Haut-parleur d'extrêmes graves à double bobine 10 po (4Ω)+(4Ω)

R-W10D2

10 Inch Dual Voice Coil Subwoofer (2Ω)+(2Ω)
Haut-parleur d'extrêmes graves à double bobine 10 po (2Ω)+(2Ω)

General Specifications		
Size	Taille	
Frequency Response	Response en Fréquence	
Power Range	Plage de Puissance	
Power Handling	Puissance Admissible	
Magnet Weight	Poids de l'aimant	
Voice Coil Diameter	Diamètre de la bobine	
Thiele-Small Parameters		
Sensitivity (1W/1m)	Sensibilité (1W/1m)	SPL
DC Resistance	Résistance DC	Re
Inductance	Inductance	Le
Free Air Resonance	Résonance à l'air libre	Fs
Equivalent Stiffness	Raideur équivalente	Vas
Mechanical Q	Q Mécanique	Qms
Electrical Q	Q Électrique	Qes
Total Q	Q Total	Qts
Cone Area	Surface du diaphragme	Sd
Linear Excursion	Displacement Linéaire	Xmax (1-way)
Mechanical Travel	Déplacement Mécanique	Xmech (P-P)

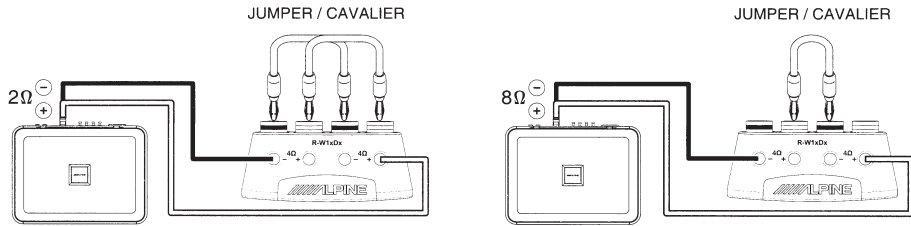
R-Series			
R-W10D2	R-W10D4	R-W12D2	R-W12D4
2Ω+2Ω	4Ω+4Ω	2Ω+2Ω	4Ω+4Ω
10"		12"	
26Hz-200Hz		24Hz-200Hz	
300W-750W RMS (efficace)			
750W RMS (efficace) / 2250W PEAK (de crête)			
111 oz		127 oz	
65.5 mm (2.6")			
82.4 dB	82.4 dB	84.3 dB	84.7 dB
1.9Ω+1.9Ω	3.6Ω+3.6Ω	1.9Ω+1.9Ω	3.6Ω+3.6Ω
2.72 mH	4.46 mH	3.00 mH	4.46 mH
30 Hz	31 Hz	27 Hz	28 Hz
21 L	20 L	51 L	48 L
8.03	7.71	7.56	7.15
0.50	0.59	0.53	0.61
0.47	0.55	0.49	0.56
333cm ²		479 cm ²	
20 mm			
70 mm		72 mm	

Note: Specifications subject to change without notice

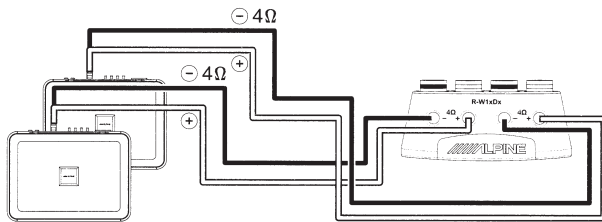
ALPINE

4Ω + 4Ω

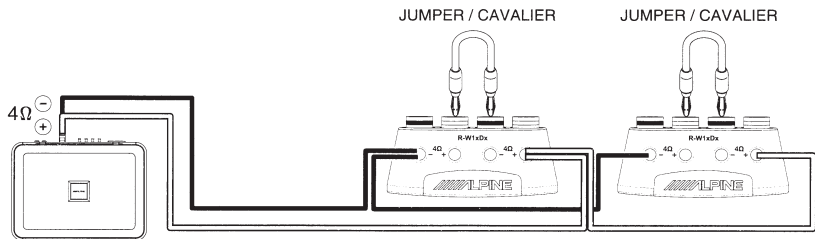
Example 1 One Amplifier + One Subwoofer



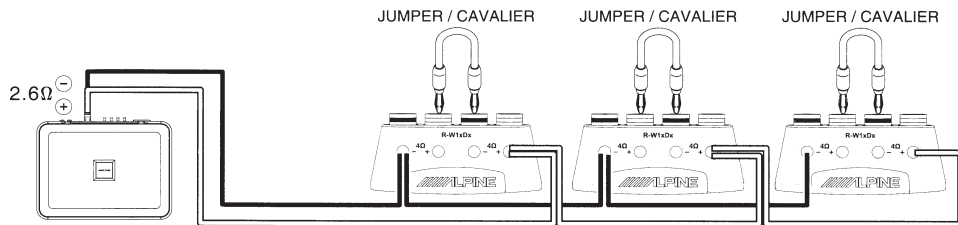
Example 3 Two Amplifiers + One Subwoofer



Example 5 One Amplifier + Two Subwoofers



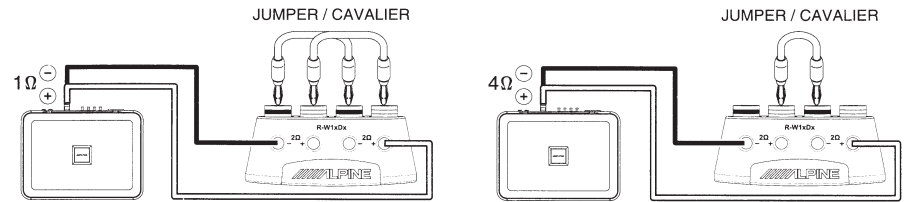
Example 7 One Amplifier + Three Subwoofers



2Ω + 2Ω

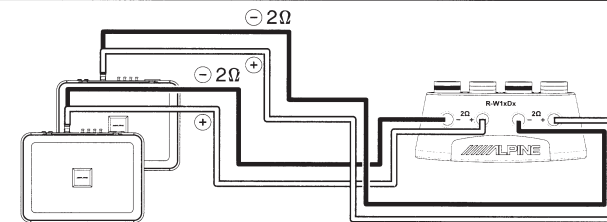
R-W10D4 / R-W12D4
R-W10D2 / R-W12D2

Example 2 One Amplifier + One Subwoofer

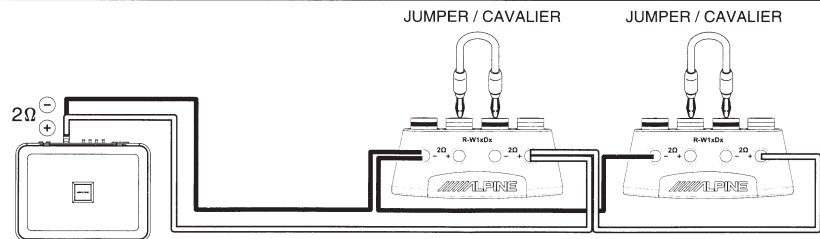


**Caution ! Consult amplifier owner's manual for 1Ω connection.
Attention : lire le manuel de l'amplificateur pour la connexion à 1Ω .**

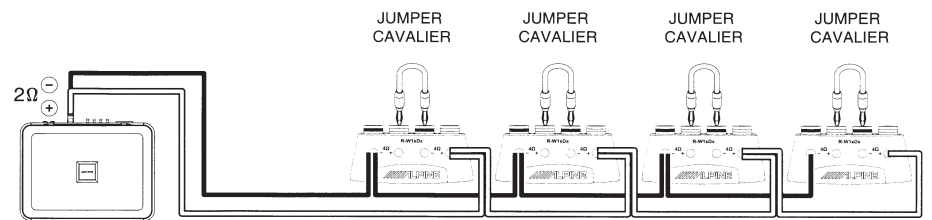
Example 4 Two Amplifiers + One Subwoofer



Example 6 One Amplifier and Two Subwoofers



Example 8 One Amplifier + Four Subwoofers



		R-W10D2/D4	R-W12D2/D4
Sealed Box Range	Net Internal Volume	0.4-0.85 ft ³	0.55-1.0 ft ³
Recommended Sealed Box	External Box Dimensions	12"x12"x10.5"	14"x14"x11"
	Gross Internal Volume	0.58 ft ³	0.85 ft ³
	Net Internal Volume	0.50 ft ³	0.75 ft ³
	F3, Qtc	D2: 44 Hz, 0.71 D4: 38 Hz, 0.89	D2: 40 Hz, 0.82 D4: 37 Hz, 1.00
Vented Box Range	Net Internal Volume	0.75-1.3 ft ³	1.0-1.5 ft ³
	Fb, Tuning	35-39 Hz	32-37 Hz
Recommended Vented Box	External Box Dimensions	23" x 12" x 11.5"	23" x 12.5" x 14"
	Gross Internal Volume	1.3 ft ³	1.71 ft ³
	Vent Area (W x H)	10 in ² (10"x1")	12.5 in ² (12.5"x1")
	Vent Length	17"	16"
	Vent Displacement	0.2 ft ³	0.23 ft ³
	Net Internal Volume (Vb)	1.0 ft ³	1.38 ft ³
	F3, ripple, Fb	D2: 29Hz, 4.8dB, 36Hz D4: 28Hz, 6.1dB, 36Hz	D2: 30Hz, 4.6dB, 35Hz D4: 29Hz, 5.9dB, 35Hz

Notes:

- 1) Recommended enclosure net internal volume is based upon 3/4" (19mm) MDF enclosure construction.
- 2) Consult the table below for alternative enclosure net internal volume calculation.

Front Mount Displacement* (magnet in)	-0.08 ft ³	-0.10 ft ³
Reverse Mount Added Volume* (magnet out)	+0.05 ft ³	+0.09 ft ³

*Based upon 3/4" (19mm) baffle thickness, with opening cut approximately to gasket inner diameter

		R-W10D2/D4	R-W12D2/D4
Gamme Box Sealed	Volume intérieur net	0.4-0.85 pi ³	0.55-1.0 pi ³
recommended Boîte Scellé	Dimensions de la boîte extérieures	12 po x 12 po x 10.5 po	14 po x 14 po x 11 po
	Volume intérieur brut	0.58 pi ³	0.85 pi ³
	Volume intérieur Net ***	0.50 pi ³	0.75 pi ³
	F3, Qtc	D2: 44 Hz, 0.71 D4: 38 Hz, 0.89	D2: 40 Hz, 0.82 D4: 37 Hz, 1.00
Gamme charge bass-reflex	Volume intérieur net	0.75-1.3 pi ³	1.0-1.5 pi ³
	Fb, mise au point	35-39Hz	32-37Hz
recommended charge bass-reflex	Dimensions de la boîte extérieures	23 po x 12 po x 11.5 po	23 po x 12.5 po x 14 po
	Volume intérieur brut	1.3 pi ³	1.71 pi ³
	Aire de l'évent (W x H)	10 in ² (10 po x 1 po)	12.5 in ² (12.5 po x 1 po)
	Longueur de l'évent	17 po	16 po
	Déplacement de l'évent	0.2 pi ³	0.23 pi ³
	Volume intérieur Net (Vb)***	1.0 pi ³	1.38 pi ³
	F3, crête, Fb	D2: 29Hz, 4.8dB, 36Hz D4: 28Hz, 6.1dB, 36Hz	D2: 30Hz, 4.6dB, 35Hz D4: 29Hz, 5.9dB, 35Hz

Notes:

- 1) Recommandé enceinte volume net interne est basée sur 3/4 "(19mm) de construction boîtier en MDF.
- 2) Consulter le tableau ci-dessous pour le calcul de filet d'enclos alternative volume interne.

Avant le déplacement du Mont * (aimant)	-0.08 ft ³	-0.10 ft ³
Inverser Volume mont Ajouté * (des aimants)	+0.05 ft ³	+0.09 ft ³

* Sur la base de l'épaisseur du déflecteur 3/4" (19mm), avec une ouverture coupée à peu près à joint diamètre intérieur

High Amplitude Multi-Roll (HAMR) Surround
(US Pat #8,208,677)

Reinforced Parabolic Cone Structure with Pulp/Kevlar Cone & PP/Mica/Talc Dust cap

Concealed Mount Gasket
(Integrated Grille System Ready, US Pat #7,760,900)

Airflow Management & Heat Transfer System
(US Pat #7,684,585; #6,678,387)

Reinforced Cone Neck & Spider Joint

Progressive Spider with Reinforced Layer Tinsel Leads
(US Pat #6,810,988)

Compound Radius Curve Extended Pole Geometry
(US Pat #6,639,993)

Integrated 8AWG Push Terminals with VC Configuration Jumpers

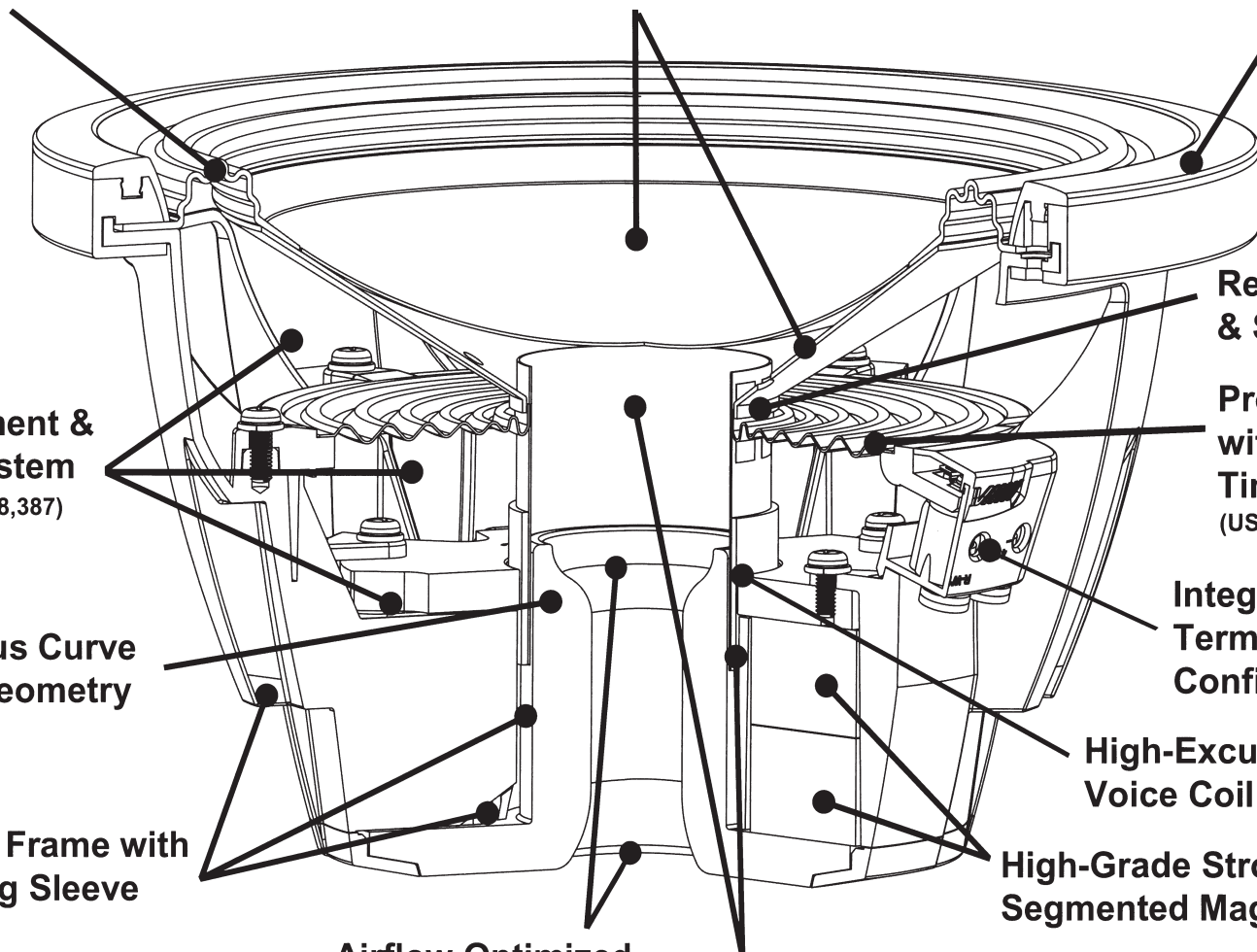
Cast Aluminum Frame with Integral Shorting Sleeve
(US Pat #7,272,238)

High-Excursion Overhung Voice Coil Configuration

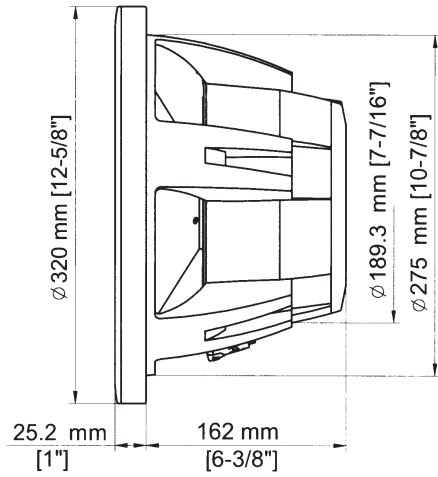
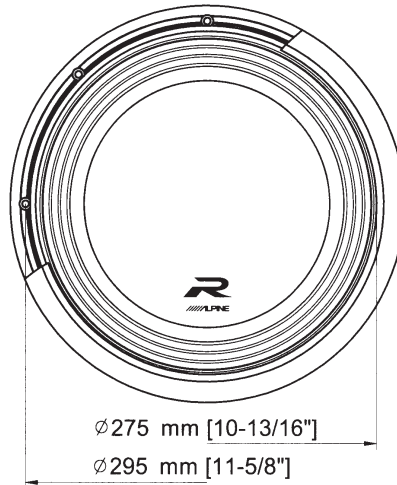
High-Grade Strontium Ferrite Segmented Magnet Assembly

Airflow Optimized Dual Flare Pole Vent

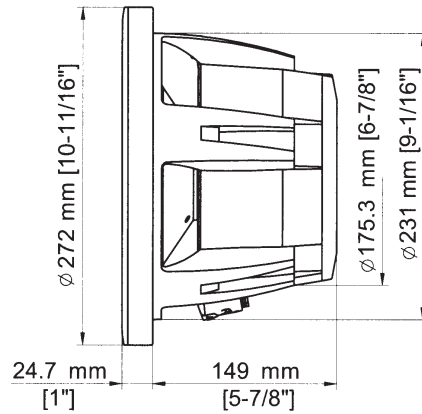
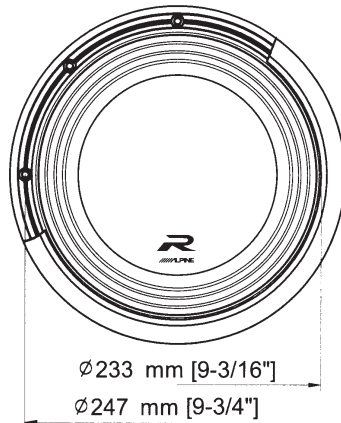
65mm Voice Coil with High-Temp 4-Layer DVC Winding on Aluminum Former



R-W12D2
R-W12D4



R-W10D2
R-W10D4



ALPINE ELECTRONICS, INC.
Tokyo office:
1-1-8 Nishi-Gotanda, Shinagawa-ku,
Tokyo 141-8501, Japan
Phone: 81(3) 3494-1101

ALPINE ELECTRONICS MARKETING, INC.
1-7, Yukigaya-Otsukamachi, Ota-ku
Tokyo 145-0067, Japan
Tel.: 03-5499-4531

ALPINE ELECTRONICS OF AMERICA, INC.
19145 Gramercy Place
Torrance, California 90501 U.S.A.
Tel.: 1(310)326-8000

ALPINE ELECTRONICS GmbH
Wilhelm-Wagenfeld-Strasse 1-3,
80807 Munich,
Germany
Phone:49(0)89-324264-0

ALPINE ELECTRONICS FRANCE S.A.R.L.
184 allée des Erables
CS 52016 – Villepinte
95 945 Roissy CDG cedex
FRANCE
Phone: +33 1 48 63 89 89

ALPINE ITALIA S.p.A.
Viale C. Colombo 8,
20090 Trezzano Sul
Naviglio (MI), Italy
Tel.: 02-484781

ALPINE ELECTRONICS OF U.K., LTD.
Alpine House Earplace Business Park,
Fletchamstead Highway,
Coventry CV4, 9TW, U.K.
Phone:44-2476-719500

ALPINE ELECTRONICS OF
AUSTRALIA PTY. LTD.
161-165 Princes Highway, Hallam
Victoria 3803, Australia
Tel.: 03-8787-1200

ALPINE ELECTRONICS DE ESPAÑA, S.A.
Portal de Gamarra 36, Pabellón, 32
01013 Vitoria (Alava).
APDO 133, Spain
Tel.: 945-283588

ALPINE ELECTRONICS (CHINA) CO., LTD.
R2-4F, China Merchants Tower
No.116 Jianguo Street,Chaoyang District,
Beijing 100022, China
Phone:86(10)6566-0308

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Please take a moment to protect your purchase by registering your product now at the following address: www.alpine-usa.com/registration. You will be informed of product and software updates (if applicable), special promotions, and news about Alpine.

Also, by registering your product, you can enter for a chance to win prizes!

We look forward to continue serving you in the future.



Sincerely,

The Alpine Team

French

Nous vous remercions d'avoir porté votre choix sur un équipement audio automobile Alpine. Notre principal objectif est de fabriquer les meilleurs produits audio, vidéo et de navigation au monde afin de répondre aux exigences de nos clients.

Veuillez prendre quelques instants pour sécuriser votre achat en enregistrant votre produit à l'adresse suivante: www.alpine-usa.com/registration. Vous serez informé(e) des nouveaux produits, mises à jour logicielles (le cas échéant), promotions spéciales et informations concernant Alpine.

Lors de l'enregistrement de votre produit, vous pouvez vous inscrire et obtenir une chance de gagner des prix !

Nous espérons que nos produits vous donneront entière satisfaction.

Cordialement,

L'équipe Alpine

Spanish

Agradecemos que haya elegido a Alpine como su proveedor de equipo de audio para su vehículo. Nuestro objetivo es fabricar los mejores productos de audio, video y navegación del mundo y esperamos poder cumplir con sus expectativas.

Para proteger su compra le pedimos que se tome unos momentos para registrar su producto en la siguiente dirección: www.alpine-usa.com/registration. Recibirá información sobre novedades del producto, actualizaciones de software (si su producto lo requiere), promociones especiales y noticias sobre Alpine.

Además, si registra su producto, tendrá la posibilidad de entrar a un sorteo para ganar diversos premios.

Esperamos poder tener la oportunidad de seguir ofreciéndole otros productos en el futuro.

Atentamente,

El equipo de Alpine



IMPORTANT NOTICE!
PLEASE READ FIRST BEFORE INSTALLING SPEAKERS

Congratulations on your purchase of high quality speakers from Alpine. Your listening satisfaction is important to us. In order to maximize and maintain peak speaker performance the following guidelines are being provided. Please read this notice carefully before operating the speakers.

- 1. Do not over-drive the amplifier. Over-driving the amplifier will result in distortion or clipping and can damage any speaker.**
- 2. Make sure gain controls are properly set. (Follow instructions in amplifier owner's manual.)**
- 3. Make sure that the speaker is properly rated for the amplifier.**
- 4. Make sure that volume, bass, treble, equalization or crossover settings do not cause the amplifier to over-drive.**

Failure to follow these guidelines may result in burned or damaged speaker voice coils which will void your warranty.

If further assistance is necessary, please contact your Alpine authorized dealer.



LIMITED WARRANTY

ALPINE ELECTRONICS OF AMERICA, INC. ("Alpine"), is dedicated to quality craftsmanship and is pleased to offer this Warranty. We suggest that you read it thoroughly. Should you have any questions, please contact your Dealer or contact Alpine at one of the telephone numbers listed below.

●PRODUCTS COVERED:

This Warranty covers Car Audio Products and Related Accessories ("the product"). Products purchased in the Canada are covered only in the Canada. Products purchased in the U.S.A. are covered only in the U.S.A.

●LENGTH OF WARRANTY:

This Warranty is in effect for one year from the date of the first consumer purchase on most with the exception of the INA-W900/INA-W900BT, which is two years.

●WHO IS COVERED:

This Warranty only covers the original purchaser of the product, who must reside in the United States, Puerto Rico or Canada.

●WHAT IS COVERED:

This Warranty covers defects in materials or workmanship (parts and labor) in the product.

●WHAT IS NOT COVERED:

This Warranty does not cover the following:

- ① Damage occurring during shipment of the product to Alpine for repair (claims must be presented to the carrier).
- ② Damage caused by accident or abuse, including burned voice coils caused by over-driving the speaker (amplifier level is turned up and driven into distortion or clipping). Speaker mechanical failure (e.g. punctures, tears or rips). Cracked or damaged LCD panels. Dropped or damaged hard drives.
- ③ Damage caused by negligence, misuse, improper operation or failure to follow instructions contained in the Owner's manual.
- ④ Damage caused by act of God, including without limitation, earthquake, fire, flood, storms or other acts of nature. Any cost or expense related to the removal or reinstallation of the product.
- ⑤ Service performed by an unauthorized person, company or association.
- ⑥ Any product which has the serial number defaced, altered or removed.
- ⑦ Any product which has been adjusted, altered or modified without Alpine's consent.
- ⑧ Any product not distributed by Alpine within the United States, Puerto Rico or Canada.
- ⑨ **Any product not purchased from an Authorized Alpine Dealer.**

●HOW TO OBTAIN WARRANTY SERVICE:

- ① You are responsible for delivery of the product to an Authorized Alpine Service Center or Alpine for repair and for payment of any initial shipping charges. Alpine will, at its option, repair or replace the product with a new or reconditioned product without charge. If the repairs are covered by the warranty, and if the product was shipped to an Authorized Alpine Service Center or Alpine, Alpine will pay the return shipping charges.
- ② You should provide a detailed description of the problem(s) for which service is required.

- ③ You must supply proof of your purchase of the product.

- ④ You must package the product securely to avoid damage during shipment. To prevent lost packages it is recommended to use a carrier that provides a tracking service.

●HOW WE LIMIT IMPLIED WARRANTIES:

ANY IMPLIED WARRANTIES INCLUDING FITNESS FOR USE AND MERCHANTABILITY ARE LIMITED IN DURATION TO THE PERIOD OF THE EXPRESS WARRANTY SET FORTH ABOVE AND NO PERSON IS AUTHORIZED TO ASSUME FOR ALPINE ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT.

●HOW WE EXCLUDE CERTAIN DAMAGES:

ALPINE EXPRESSLY DISCLAIMS LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES CAUSED BY THE PRODUCT. THE TERM "INCIDENTAL DAMAGES" REFERS TO EXPENSES OF TRANSPORTING THE PRODUCT TO THE ALPINE SERVICE CENTER, LOSS OF THE ORIGINAL PURCHASER'S TIME, LOSS OF THE USE OF THE PRODUCT, BUS FARES, CAR RENTALS OR OTHERS COSTS RELATING TO THE CARE AND CUSTODY OF THE PRODUCT. THE TERM "CONSEQUENTIAL DAMAGES" REFERS TO THE COST OF REPAIRING OR REPLACING OTHER PROPERTY WHICH IS DAMAGED WHEN THIS PRODUCT DOES NOT WORK PROPERLY. THE REMEDIES PROVIDED UNDER THIS WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS.

●HOW STATE/PROVINCIAL LAW RELATES TO THE WARRANTY:

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state and province to province. In addition, some states/provinces do not allow limitations on how long an implied warranty lasts, and some do not allow the exclusion or limitation of incidental or consequential damages. Accordingly, limitations as to these matters contained herein may not apply to you.

●IN CANADA ONLY:

This Warranty is not valid unless your Alpine car audio product has been installed in your vehicle by an Authorized Installation Center, and this warranty stamped upon installation by the installation center.

●HOW TO CONTACT CUSTOMER SERVICE:

Should the product require service, please call the following number for your nearest Authorized Alpine Service Center.

CUSTOMER SERVICE 1-800-421-2284, ext. 860304
TECH SUPPORT 1-800-TECH-101 (1-800-832-4101)

Or visit our website at: <http://www.alpine-usa.com>

ALPINE ELECTRONICS OF AMERICA, INC., 19145 Gramercy Place, Torrance, California 90501, U.S.A.

Do not send products to this address.

Call the toll free telephone number or visit the website to locate a service center.