



DIAMOND
AUDIO

MS65NEO/MS8NEO/MS69NEO



Owners Manual



Congratulations, you have just purchased one of the finest mobile audio products on the market. Diamond Audio products represent the latest advances in acoustic technology in sound reproduction for your vehicle. Diamond Audio products are designed, developed, and engineered in the USA using the latest innovative materials and components to provide the finest sound reproduction possible. Every Diamond Audio product has been verified and tested to ensure the best sounding and most reliable product on the market, if installed properly. Diamond Audio products will provide many years of the ultimate listening experience.

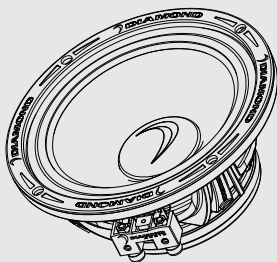
Please note that prolonged exposure to sound pressure levels in excess of 100dB can cause permanent hearing loss. Using Diamond Audio products can exceed that level, so please exercise restraint in its operation in order to preserve your ability to enjoy its high fidelity sound for many years to come.

Diamond Audio recommends our products be professionally installed by an authorized Diamond Audio dealer to achieve the best possible system recommendation and installation. This will ensure a true Diamond Audio listening experience and sound you would expect from Diamond Audio products. With proper validation use a Diamond Audio Retailer for installation of your newly purchased amplifier. Diamond Audio will extend the product warranty from one year to Two Years!!

Go ahead, Hear the Music

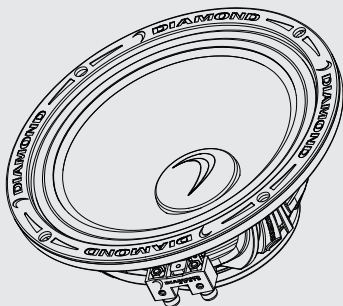
FEATURES/SPECIFICATIONS

The next generation of Diamond Audio Pro Audio Mobile drivers features and specifications are on the next few pages. Makes sure to read this manual and get to know your drivers and the many applications and set up scenarios available to you.



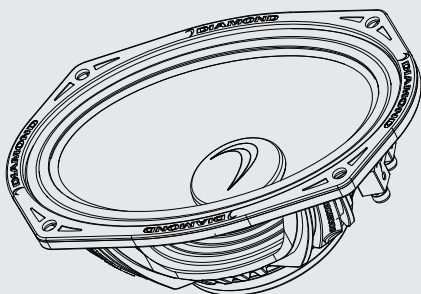
MS65NEO

6.5" Neodymium MidRange Speaker
300 W RMS/600W MAX Power Handling
Heavy Duty Industrial Cast Aluminium Basket
Waterproof Black DUPONT™ Kevlar Cone
Neodymium Magnet Motor Structure
US manufactured 2" Black High Temperature Coated Voice Coil



MS8NEO

8" Neodymium MidRange Speaker
350 W RMS/700W MAX Power Handling
Heavy Duty Industrial Cast Aluminium Basket
Waterproof Black DUPONT™ Kevlar Cone
Neodymium Magnet Motor Structure
US manufactured 2" Black High Temperature Coated Voice Coil



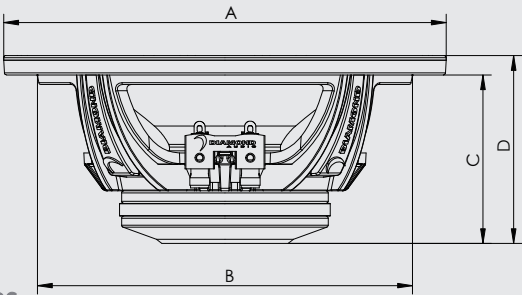
MS69NEO

6" x 9" Neodymium MidRange Speaker
350 W RMS/700W MAX Power Handling
Heavy Duty Industrial Cast Aluminium Basket
Waterproof Black DUPONT™ Kevlar Cone
Neodymium Magnet Motor Structure
US manufactured 2" Black High Temperature Coated Voice Coil

NOTE: RED dot on terminal indicates positive connection

PHYSICAL DIMENSIONS

| Dimension | Unit | MS65NEO | MS8NEO | MS69NEO |
|----------------------|--------|-------------|-------------|------------------------|
| Total Diameter(A) | in(mm) | 6.654(169) | 8.268(210) | 9.193*6.378(233.5*162) |
| Mounting Diameter(B) | in(mm) | 5.787(147) | 7.008(178) | 8.583*5.748(218*146) |
| Mounting Depth (C) | in(mm) | 2.776(70.5) | 3.15(80) | 3.091(78.5) |
| Total Depth(D) | in(mm) | 3.138(79.7) | 3.512(89.2) | 3.433(87.2) |



THIELE/SMALL PARAMETERS

| Parameter(Unit) | MS65NEO | MS8NEO | MS69NEO |
|-----------------|---------|---------|---------|
| SPL(Db) | 94 | 96 | 96 |
| Re(l) | 3.2 | 3.2 | 3.2 |
| Qms | 9.892 | 8.728 | 9.971 |
| Qes | 0.629 | 0.57 | 0.558 |
| Qts | 0.592 | 0.535 | 0.528 |
| Fs(Hz) | 120 | 100 | 90 |
| Vas(L) | 2.97 | 10.3 | 10.7 |
| Cms(mm/N) | 0.105 | 0.153 | 0.177 |
| Mms(g) | 16.4 | 17.6 | 17.5 |
| Sd(M2) | 0.0141 | 0.0217 | 0.0207 |
| BL(T*M) | 8.209 | 7.997 | 7.785 |
| Xmas(mm) | 1.2 | 1.2 | 1.2 |
| PWR(W)NOM/MAX | 300/600 | 350/700 | 350/700 |

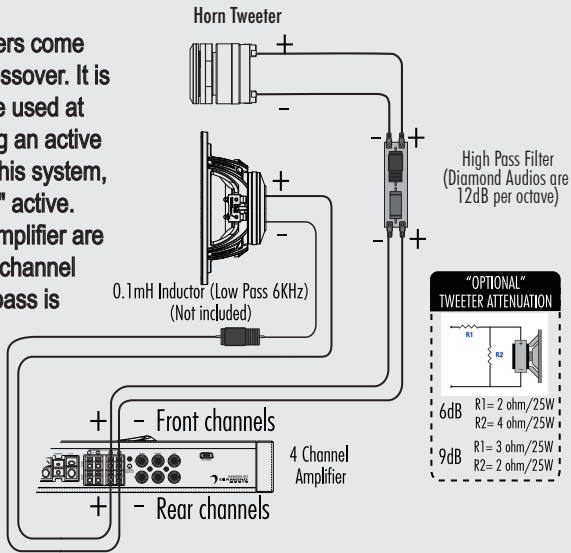
*Hi-pass filtered @ 5 kHz - 12 dB Oct
**Hi-pass filtered @ 100 Hz - 12 dB Oct

SYSTEM DESIGN - PASSIVE/ACTIVE

TYPICAL “BI-AMPED” SYSTEM USING PASSIVE CROSSOVERS

The Diamond Audio Pro Horn drivers come with a special 12dB per octave crossover. It is **HIGHLY** recommended that this be used at **ALL** times - **UNLESS** you are using an active crossover set at above 7.5kHz. This system, shown is "Bi-Amped, but not 'Fully' active. Front channels of this 4 channel amplifier are driving the mid bass drivers. Rear channel are driving the tweeters. The mid bass is shown with a 0.1 mH inductor in series to cross over the midbass at 6KHz with a 6dB roll-off. This setup makes it easier to adjust level of the midbass versus the tweeter.

(ONLY RIGHT CHANNEL SHOWN)

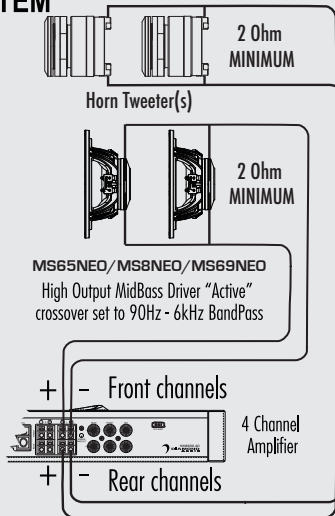


SYSTEM DESIGN - FULLY ACTIVE

TYPICAL “FULLY ACTIVE” SYSTEM

The Diamond Audio Pro Horn drivers and Midbass drivers can be run in multiple pairs. It is **HIGHLY** recommended to use some kind of EQ/processor. IF you plan on doing ALL active setup seriously think about purchasing a DSP processor. Using a DSP processor makes it much easier to control and tune your system. Think about using the Diamond Audio BTDSP-46. Small 4 in 6 out, simple to use. Controlled by your SmartPhone

(ONLY RIGHT CHANNEL SHOWN)



(ONLY RIGHT CHANNEL SHOWN)

Installing the Speakers

Your new Diamond Audio series speakers were designed with the flexibility to be installed in multiple locations. However, to ensure the best performance possible, it is important to isolate the front sound waves of the speaker from its rear sound waves. This is done by securely mounting the speaker to a flat surface known as a baffle. Make sure to seal the speaker to ensure there are no air leaks around its frame.

Selecting a Location

Since these are "Pro Drivers" we know the likelihood of mounting in stock locations is pretty non-existent. This means basic audio concepts should be thought of when installing. If installing multiple midbass or tweeter drivers it is ALWAYS best to mount in vertical rows. This gives the best vertical and horizontal dispersion characteristics of the drivers. Venting (or porting) is not necessary. Multiple midbass drivers should be used to every single horn driver (horn tweeters tend to be 10dB louder than the mids). Line the walls of the enclosures with deadliner and polyfil. If you want to build vented enclosures the Theile/Small parameters are on page 4. Our recommended computer modeling software is WinISDPro. Or call us and we can help.

We HIGHLY recommend that for the BEST sound you put a sound deadening mat on the door "skin", The more "damped" your car is.... the better it will ultimately sound!!!

WARRANTY

Diamond Audio Technologies (DAT), a division of CV & DA Holdings Incorporated, warrants this product to be free from defects in material and workmanship for a period of one (1) year from the original date of purchase, provided it was purchased from an authorized DAT retailer within the United States. Product warranty period starts at the date of purchase or one year past the manufacture date whichever is first. However, upon purchase and completion of the on-line registration and installation by an authorized DAT dealer, warranty period will be extended to two (2) years. This warranty extension offer will only be recognized upon completion of the on-line registration of your product within thirty (30) days of the date of purchase.

THIS WARRANTY IS NOT TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER OF THIS PRODUCT IN ITS ORIGINAL INSTALLATION. Original purchaser must reside in the United States and be able to provide proof of purchase and installation with the sales receipt and completion of online registration from the authorized DAT retailer that sold and installed the product.

Should a manufacturing defect occur during above said warranty period, DAT will replace or repair the defective product with a product of the same or equivalent value and performance, at DAT's discretion.

Damage or failure caused by any of the following is not covered under this warranty policy: negligence, improper use, abuse, product modification, unauthorized repair attempts, accident, acts of God, misrepresentations by DAT retailers, and improper/inadequate packaging during return shipping.

Warranty is void if serial numbers have been removed, altered or defaced.

HOW TO OBTAIN WARRANTY SERVICE

In the event a DAT product should require service, you should visit the authorized DAT retailer you purchased the product from and they can expedite your claim. All claims must fall into the guidelines listed above and be accompanied by a copy of the original sales and installation receipt from that authorized DAT retailer.

Product returned for warranty service must be freight-prepaid, properly packaged and clearly marked with the Return Authorization (RA) number issued by DAT. Any product returned to DAT that is improperly packaged, does not have a RA number clearly marked on the package, or never received a RA number, may be refused upon delivery. DAT does not assume responsibility for lost or misdirected product.

Repair or replacement under this warranty is the exclusive remedy of the consumer. DAT shall not be liable for any incidental or consequential damages for breach of any expressed or implied warranty on this product. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights that may vary from state to state.

Customers outside the United States should contact their local sales office to obtain information on pricing, exchange unit availability, instructions, service and warranty/non-warranty replacement or repair.

Diamond Audio Technologies

3761 South Hill St.

Los Angeles, CA 90007

Tel: 213-261-4161

Fax: 213-947-4767

Web: diamondaudio.com

Service/Tech Support:

213-261-4161

Tech Support Email

helpdesk@dat-cvm.com



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3761 South Hill St.
Los Angeles, CA 90007

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