Owner's Manual

F250

eficion

The loudspeaker that sings

Dear Customer,

We would like to thank you for choosing a pair of our speakers and congratulate you on your choice. This manual is to provide you information for properly setting up the speakers and to optimize the performance.

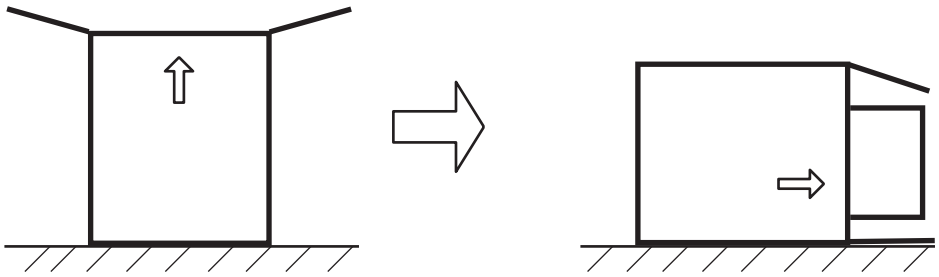
Safety Precautions

Do not place any magnetic sensitive electronic devices, such as magnetic data storage systems and computers, within approximately two feet of the speaker.

Please refer to Fig. 2 for proper speaker cable connections.

Open the top &
Take out the top foam

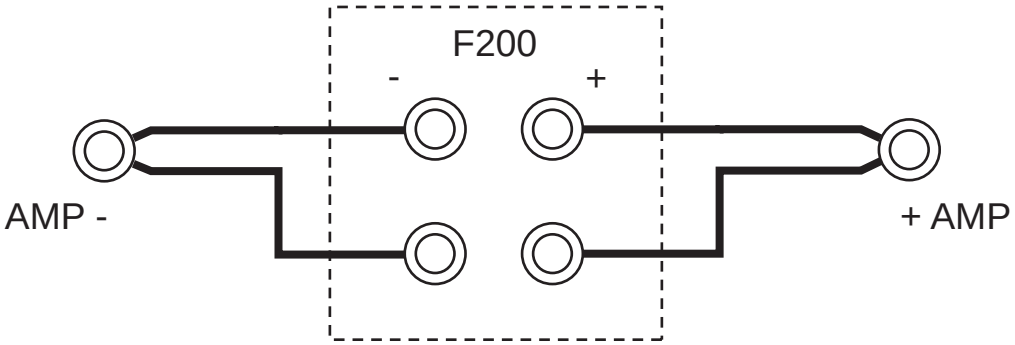
Lay on the side (side of the speaker) &
Slide out the speaker along with foams



Note: accessaries such as spikes are contained in the concave spaces of a packaging foam.

Fig. 1 unpacking

(A) Bi-wiring connections



Note: the jumpers removed

(B) Single-wiring connections

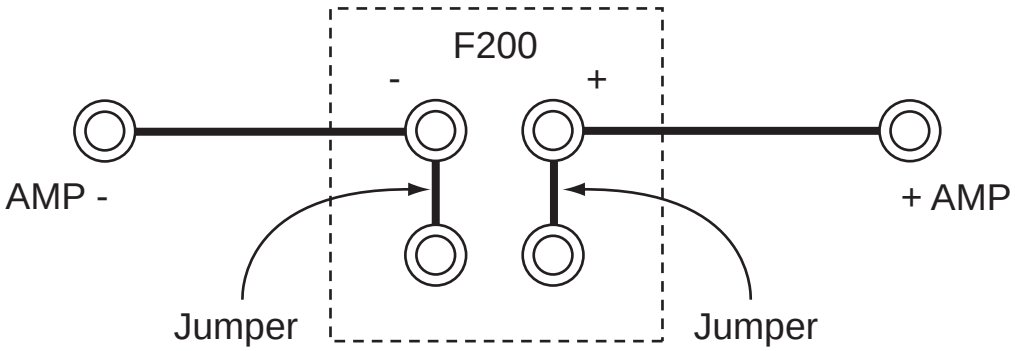


Fig. 2 speaker cable connections

Unpacking and Handling

The F250 is both heavy and relatively delicate, and must be handled with care. When moving the speaker still in the cardboard box, gentle rolling is generally allowed. But dropping from any height should absolutely be avoided. It is preferable to unpack the speakers close to the position at which they are to be used.

Fig. 1 illustrates a way to take the speaker out of the box. Please note that accessories, such as spikes, are placed in the concave spaces of a packaging foam.

Speaker Placement

The speakers should be placed 7 to 9 feet apart (measured between nearest sides) for a natural sound stage. Too far apart, while focus still maintains, the sound stage may become artificially wide. An ideal listener to speaker distance should be that the two speakers and the listener are at three corners of an equilateral triangle. Ideally, the speakers should be at least one foot away from the back and side walls. Moving the speakers further from the walls will generally reduce the volume of bass. Space behind the speakers will also help to expend depth of the sound stage. Because of the uniform sound dispersion of an air motion transformer (AMT) tweeter being employed by the F250, distance to the side wall of the F250 is not as critical as that of dome tweeter speakers. For the same reason, toe-in (speakers pointing at the listener) is generally not needed, in fact, not preferred as less toe-in may fill the room better.

Most room treatment experiences are developed based on the widely used dome tweeter which beams sound and tends to have problems with rooms. Because the F250's AMT tweeter, which is a dramatic departure from traditional dome tweeters, has a wide and uniform horizontal dispersion pattern, the F250 is less affected by the room, and placement is relatively more forgiving. However, since the F250 produces substan-

tial amount of bass, bass traps, especially at the corners, can often make quite a difference. Hanging heavy fabrics at the corners can be a simple yet elegant solution.

Bulky objects, such as a tall equipment rack or a rear-projection TV set, placed directly between two speakers have negative effect on the sound stage. They should either be moved as far back as possible or at least be covered with a sound absorbing material, such as a heavy curtain.

Speaker Installation

It is important to ensure that the speakers stand firmly on the floor using the height adjustable spike feet supplied whenever possible. The spike feet are designed to press the carpet to the floor surface. For hard surface floor, place a puck supplied underneath each spike foot.

Tapes covering the tweeters need to be removed before powering up the speakers. First you need to gently pull off the grilles, then you will see the tapes.

The F250s can be connected in either single-wiring or bi-wiring configuration. Fig. 2 illustrates cable connections for the speakers. In the bi-wiring configuration shown in Fig. 2A, jumpers are removed. For each speaker, a pair of speaker cables is used to connect the upper and lower bonding posts on the back of the speakers separately to the amplifer. In the single-wiring configuration, a jumper is used to connect the upper and lower bonding post on the back of the speaker. Then for each speaker, only one speaker cable is used to connect either the upper (preferred) or lower bonding posts to the amplifier. Generally, bi-wiring is preferred, especially when the amplifier has ample power.

Keeping cable as short as possible may be more beneficial than an expensive but long cable, as inductance, which affects high frequency response, is proportional to the cable length. See inductance equation in straight wire conductor:

$$L = 5.08 \cdot l \cdot (\ln \frac{4l}{d} - 1)$$

where L = inductance (nH), l = length ofconductor (in), and d = diameter of conductor (in). Apparently increasing diameter is far less effective in reducing the inductance than reducing length of the wire.

Break-in Period

The performance of the speaker will change subtly during the initial listening, as the suspension materials of the drivers need time to loosen up. Generally 8 hours of break-in will get you most of the performance. However, as many as 80 hours may be needed to fully break in the woofer.

To some people, the break-in process is also a psychological one, as our brains need to re-tune to a new kind of sound. Fully appreciating the F250 may not happen until after about a week of listening to it.

Aftercare

The cabinet surfaces usually only require dusting. Soft cloth damped with warm water may be enough to remove grease. If you wish to use chemical agents, chose with caution and always test first on a small area on the back of the speaker. Avoid products that are abrasive, or contain acid, alkali or anti-bacterial agents. Do not use cleaning agents on diaphragms of the drivers. Do not cause strong air flow to or from the tweeter diaphragms.

Specification

Design: 3-way vented box.

Frequency response: 30 Hz - 35 kHz.

Sensitivity: 90 dB/2.83V/1m.

Impedance: 8 ohms (minimum 6.4 ohms).

Tweeter: air motion transformer, diaphragm area: 2-1/3" x 1".

Midrange: 5", non-woven carbon fiber sandwich cone.

Woofer: 10", non-woven carbon fiber sandwich cone.

Crossover: 2000 Hz and 210 Hz.

Dimensions (HWD): 42.5″×14.2″×15.4″.

Weight (net): 104 lb/pc.