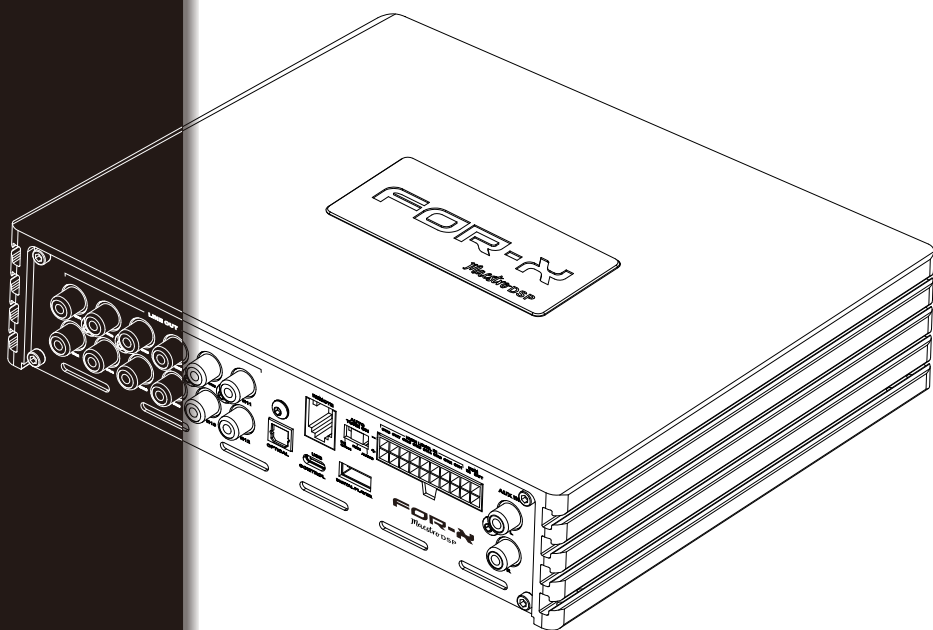


FOR-X

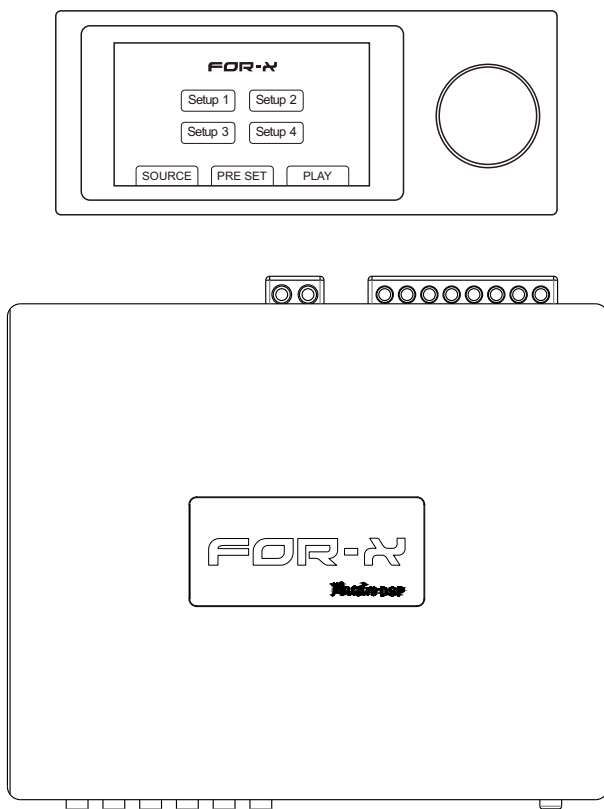


MAESTRO-812DSP-DSD

OWNERS MANUAL

FEATURES

- Global Hi-Fi level components: ADAU1452 as main DSP chip and high grade AD, DA chip.
- Built in high definition Bluetooth module, support digital signal direct transmission; Support 24bit192KHz, Bluetooth 5.0 and downward compatible to 2.0; No external antenna design, long-distance stable transmission.
- Built-in 12Channel high power amplifier - Class AB 4chx20Wrms + Class D 8chx100Wrms.
- Support dedicated MAESTRO-DSD lossless music input & DSP control. Support 24bit 192KHz APE, FLAC, WAV, DSD64/128/256, ACC, OGG, AIFF, MP3 etc. audio format. Support DSP volume control, DSP input source selection, DSP presets selection, previous and next song control; Support break-point playback, power-off memory.
- Powerful graphic intelligent PC software.



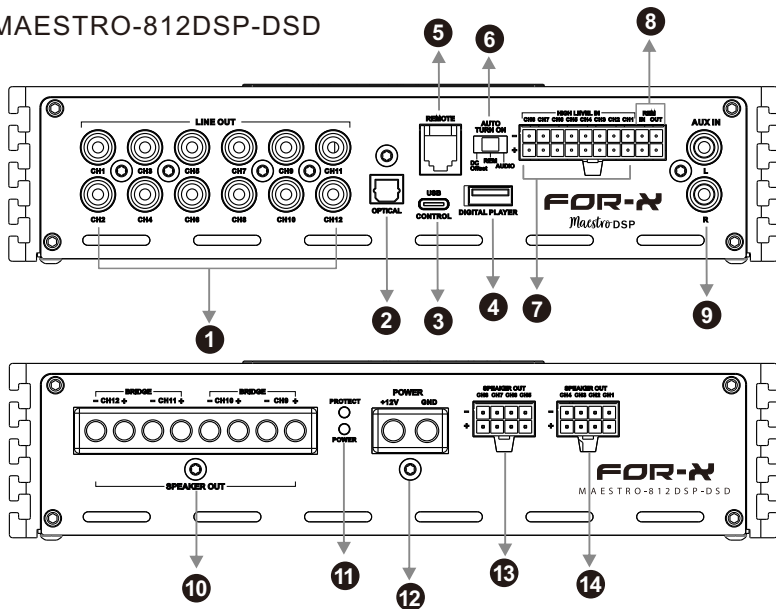
PLEASE READ BEFORE USING THIS EQUIPMENT

- 1、 Before using the product, please read all safety matters. After finishing reading, please keep this manual for future reference.
- 2、 To reduce the risk of injury, please keep the product under strict regulation when there are children nearby.
- 3、 The power supply type of the product must conform to the operating instructions or that marked on the product.
- 4、 Please make sure you follow the labeling and requirements to connect the device, or else it may cause malfunction.
- 5、 When the machine is not in use for long period, please turn it off and shut down the power supply. This can prevent the dangers such as fire due accident from the machine.
- 6、 Careful maintenance. Keep any metal things such as hairpin or iron nails from falling through the vent holes into the inside of the product.
- 7、 The product is not allowed to expose to rain or moisture environment. Also objects such as vases, tea cups that filled with liquid are not allowed to put on the product.
- 8、 Please keep it away from the damp, high temperature, dusty or corrosive environment.
- 9、 Pay attention to maintain good ventilation. Don't put things such as newspaper or cloth into the vent hole to obstruct the ventilation. When installing the machine makes sure the vent hole is at least 10cm distance away from other objects.
- 10、 Under the following situations, please entrust a qualified maintenance personnel to repair:
 - 10.1、 Debris or liquid already fall into the inside of machine.
 - 10.2、 The product has been caught in the rain.
 - 10.3、 The product cannot function normally or shows a significant change in the operation.
 - 10.4、 Products have fallen bad or have serious damage to the appearance.
- 11、 If there is any abnormal noise or smell in the use of the product, please stop running the machine immediately. Consult a dealer or repair center and ask for a check.
- 12、 When the situation doesn't belong to description of the user's maintenance guide, please don't try to fix it yourself, and don't open the enclosure. The qualified maintenance personnel shall be entrusted to carry out the repairs.

MAIN FEATURES

Input signal	AUX, High-level, Optical, Bluetooth, DSD Player
Output signal	12CH Loudspeaker Output, 12CH RCA Output
Equalizer	Type: Parametric Equalization Filter: 20Hz ~ 20 KHz, increments 1Hz Q value: 0.1 ~ 20 adjustable Gain: - 25dB ~ + 10dB, increments 0.1dB
Crossover	10 or 31 EQs per channel are optional and adjustable respectively Types of filters: Butterworth, Linkwitz Filter frequency range: 20Hz ~ 20 KHz, increments 1Hz Filter Slope: 6dB/Oct to 48dB/Oct
Phase control	0 °/ 180 °
Delay	0.0 ~ 25.0 ms, 0 ~ 850 cm, 0 ~ 334 inches
Preset	4 Presets data can be stored in the equipment.
Remote control	MAESTRO-DSD wired remote control

MAESTRO-812DSP-DSD



1.Low level signal output terminal.

MAESTRO-812DSP-DSD features low level output function to connect with external amplifier.

2.Optical Stereo Digital Signal Input port.

Switching processor audio source to optical input can play stereo digital signal output from vehicle CD or external sound source. Optical sampling rate supports 24 Bit/96 kHz.

3.USB External Computer Control.

Using the standard accessory of Type-C data cable, MAESTRO-812DSP-DSD can be connected to PC for DSP setup by special PC software. The interface conforms to the standard interface of USB3.0 and backwards compatible.

4.DIGITAL PLAYER INPUT.

MAESTRO-812DSP-DSD support dedicated MAESTRO-DSD input for lossless music playing and DSP remote control.

5.External Wired Controller Port.

MAESTRO-812DSP-DSD supports control of wired controller DWC-03 (optional).

6.Auto Turn on/off control model options.

For auto turn on/off mode, it offers three options: DC OFFSET/REM/AUDIO.

REM: When switched to Rem, the remote control output terminal of the OEM source unit is connected to the REM terminal of the processor, which is the preferred starting method.

DC Offset : If the OEM source unit has no REM signal output, you can choose DC OFFSET mode. DC OFFSET can turn on/off processor by detecting the 6V DC Offset from the OEM source unit terminal.

Audio : This mode controls the power switch by detecting audio signals from the source unit. When using this mode, please pay attention to the volume settings of the source unit. If the volume of the source unit is too low, the processor may fail to turn on.

7.High Level Signal Input Terminal.

MAESTRO-812DSP-DSD features 8 high level signal inputs to connect amplified signal cables coming from the main analog source.

8.REM IN & OUT.

REM IN: Connect it to the ACC control output Signal. The product will switch on/off automatically with vehicle ACC signal on/off.

REM OUT : It provides separate REMOTE signal output to other amplifiers to control other amplifiers switch turn on/off.

Note: The starting signal of the external power amplifier must be taken from the Rem Out terminal of this equipment.

9.AUX Auxiliary Source Signal Input Terminal.

MAESTRO-812DSP-DSD features an auxiliary stereo signal input to connect an external source mp3 player or other audio sources.

10.CH9/10/11/12 speaker output.

Connect speaker/subwoofer to these terminals. Be sure to check wire for proper polarity. Never connect the speaker cables to chassis ground. Each channel output power is 100Wrms @4ohm or 170Wrms @2ohm.

11.Working Status Indicator.

POWER LED : Working status indicator. When the processor finishes self-checking and go into proper working status, Blue led will illuminate.

PROTECT LED : Protection status indicator. When this indicator flashes, it indicates that the product is in abnormal working state and there will be no output signal.

12.POWER.

+12V: Used to connect the positive terminal 12V car battery. In order to ensure adequate power supply for the processor, special cable should be used to connect directly to the positive pole of the battery, and the fuse should be connected in series within 20 centimeters from the positive pole of the battery.

GND: Used to connect amplifier grounding cable. The power supply grounding cable need to be firmly connected to the frame of the vehicle or other places with good conductivity. Please use the cable with same specifications as the power supply cable and connect to frame of the vehicle near the installation position of the product.

13.CH5/6/7/8 speaker output.

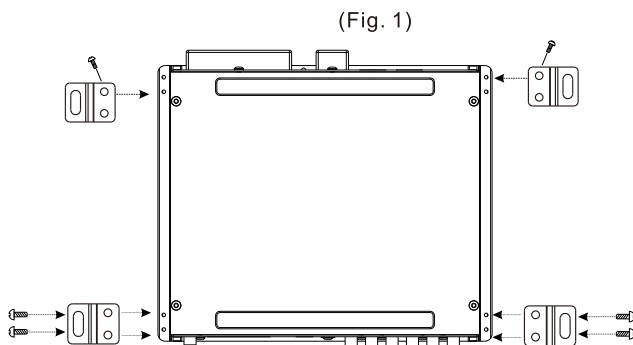
Connect speaker to these terminals. Be sure to check wire for proper polarity. Never connect the speaker cables to chassis ground. Each channel output power is 100Wrms @4ohm.

14.CH1/2/3/4 speaker output.

Connect speaker to these terminals. Be sure to check wire for proper polarity. Never connect the speaker cables to chassis ground. Each channel output power is 20Wrms @4ohm.

INSTALLATION

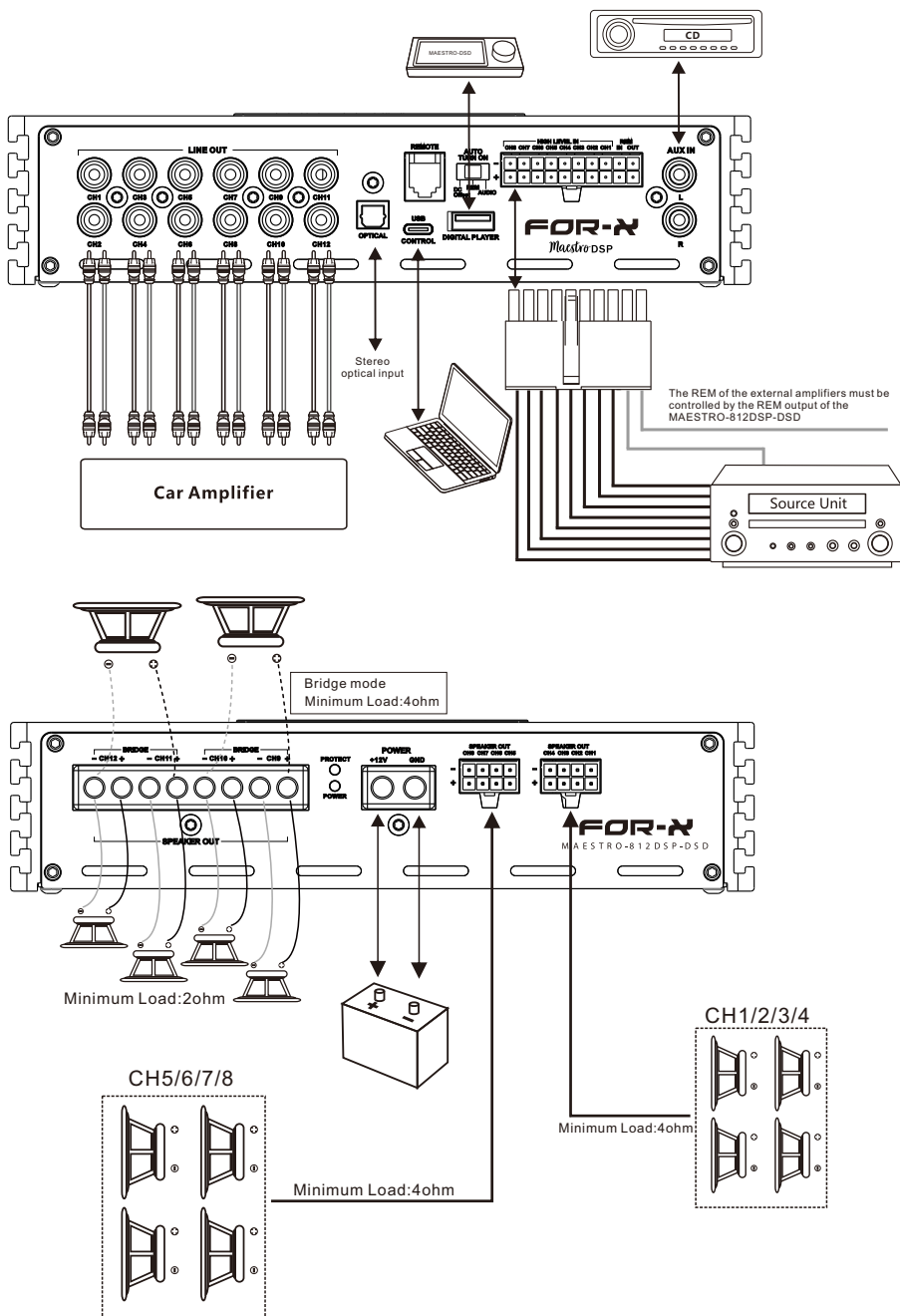
1. Turn the amplifier upside down.
2. Use eight screws from the standard accessories to install four fixtures on the amplifier (Fig. 1).
3. Use four black screws from the standard accessories to fix the amplifier to the installation position.



CONNECTING THE AMPLIFIER

- Please prepare sufficiently to layout car space before installation. We recommend having the installation done by an authorized FOR-X dealer.
- Amplifier requires large electric current consumption when working at full power. Please use good insulated power cable to endure long-term use with high electric current.
- The 12 volt power cable must be connected with a fuse in near 45cm(18") of Battery + terminal.
- Please use car audio RCA cables to connect source unit and amplifier. Make sure the RCA jack must not touch the vehicle body. Power cables and signals cables should be layout separately on two sides of the vehicle. All cables should keep away from equipment such as automobile ignition coil and vehicle computer.
- Don't expose any cable out of your vehicle. Please take care insulated cables to avoid damaged when cables pass through metal, Rubber and plastic etc. Do not pull the cable too tight during installation.
- The amplifier must be mounted securely at a solid, Dry and low vibration surface in the trunk or passenger area. Fix the amplifier in an open air area to insure proper heat dissipation.
- When installing the unit, Be careful to avoid perforations on gas tank, Drake lines, fuel lines, hydraulic lines or electrical wiring etc.

MAESTRO-812DSP-DSD Connection Diagram



PC Software Instructions

This function is only used by manufacturers and distributors.

Important Instructions for Software Installation

1. Software is run in Microsoft® Windows® system. .

Configuration requirement for PC:

Operating system: WindowsXP, Windows7, Windows8, Windows10

CPU: 1.6GHz or higher

Memory card: 1GB or higher

Hard disk: 512MB or more space

PC resolution: 1280*768 or higher

2. Before connecting MAESTRO-812DSP-DSD to PC, please install FOR-X DSP TOOL PC software first.

Software Interface Introductions

Open FOR-X DSP TOOL PC software to enter into the software operation interface. As shown in the picture below, the main functions of the software interface include channel filter selection, sound source selection, EQ, delay, phase, input configuration (mixing), EQ preview, etc.



Power source

Working voltage	DC 8.2 - 16V
Idling current	1.45A
Standby current	5.8mA
REM input voltage	8.2 - 16V
REM output voltage	DC12V (0.5A)

Signal Processing

THD @1kHz, 1V Rated power output	0.02%
Band width @-3dB	20 - 20KHz
S/N Ratio @ 1W(AMP)	75dB (A-weighted)
S/N Ratio @100W(AMP)/20W(AMP)	88dB (A-weighted)
S/N Ratio @ 1V(Pre out)	85dB (A-weighted)
Channel Separation @ 1 kHz	>70dB
Input sensitivity (AUX IN)	0.2V - 2V
Input sensitivity (high level)	0.4V - 10V
Input impedance	low level:22K Ω / high level:10K Ω
Maximum output level (RMS) @ 0.1% THD	3.5V

Input/output

AUX input	2 channel
High level input	Up to 8 channel
Bluetooth/optical/DSD signal input	Stereo
Low level (PRE) RCA output	Up to 12 channel
4Ohm(stereo) power @1% THD	Class AB 4 x 20 Wrms + Class D 8x100Wrms
2Ohm(stereo) power @1% THD	4 x 170Wrms(CH9/10/11/12 only)
4Ohm(bridged) power @1% THD	2 x 350Wrms (CH9/10/11/12 only)
Crossover Filter type	Full/High pass/Low pass/Band pass

Filter mode and slope

Linkwitz	12/18/24/30/36/42/48 dB
Butterworth	6/12/18/24/30/36/42/48 dB
Input/output crossover	10 - 20KHz,increments 1Hz
Phase adjustment	0° / 180°
Dimension Length x Width x Height	229 x 203 x 53mm

