OWNER'S MANUAL

Please Read This Manual Before
Installation and Using Amplifier

GTtrading

AUDIO
SYSTEM

Italy

ADSP6

DIGITAL SIGNAL PROCESSING

Index

1. PRODUCT DESCRIPTION / PRECAUTIONARY NOTES

The ADSP6 is a digital signal processor essential to maximize the acoustic performance of your car audio system.
It consists of a 32-bit DSP processor and 24-bit AD and DA converters.
It can connect to any factory system, even in vehicles featuring an integrated audio processor, since, thanks to the de-equalization function, the ADSP6 will send back a linear signal.
It features selectable High and low level inputs as well as 3.5mm Aux and digital inputs that feed 8 completely variable output channels.
Each output channel has a 31-band equalizer available. It also features a 66-frequency electronic crossover as well as BUTTERWORTH filters with 6-24 dB slopes and a digital time delay line The user can select adjustments that allow him or her to interact with the ADSP6 through a remote control device called DRC.

WARNING: 1- a PC provided with Windows XP, Windows Vista or Windows 7 operating system, 1.5 GHz minimum processor speed, 1 GB RAM minimum memory and a graphics card with a minimum resolution of 1024 x 600 pixels are required to install the software and setup the ADSP6.
2- Before connecting your ADSP6, carefully read this manual. Improper connections may cause damage to the ADSP6 or to the speakers in the car audio system.
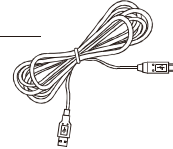
2. PACKAGING CONTENTS

- ADSP6 - Signal Interface Processor
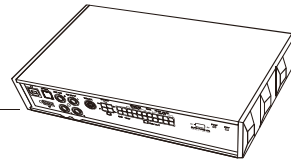
- Power supply cable / Remote / Inputs

- 5.0 m USB cable

- 2 of 4.0 x 16 mm self-tapping,
  cross-head fixing screws

- CD ROM with:
  ADSP6 software
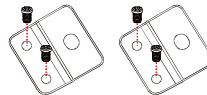 This advanced manual (.pdf format)
  Test tracks

OPTIONAL:

- DRC (Digital Remote Control) control panel

- 2 fixing brackets with 2.5 x 1.75cm
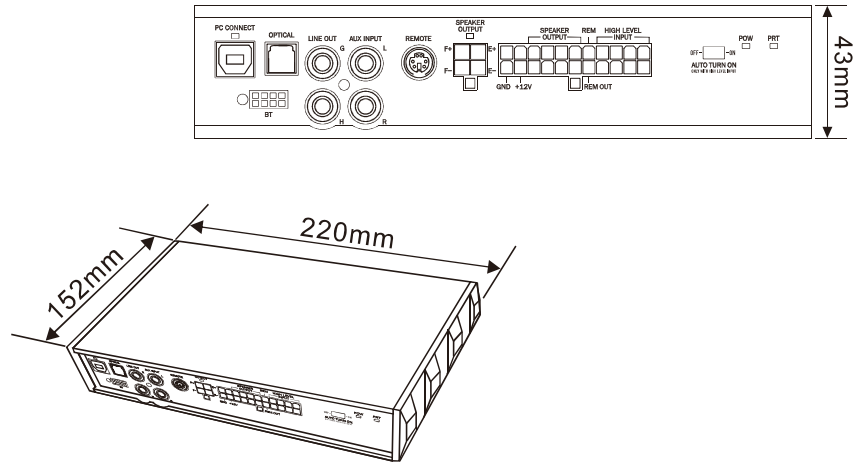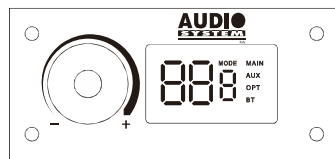 self-tapping, cross-head screws

- 5.0 m DRC - AC Link cable
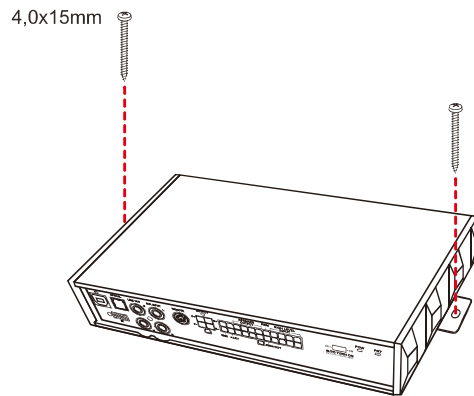
3

3. ADSP6 AND DRC INSTALLATION

External dimensions
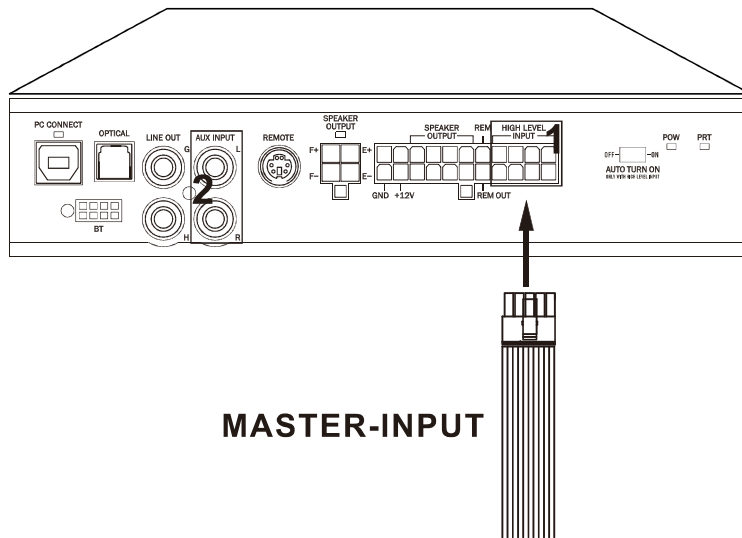

How to install

4,0x15mm

Warning: do not use aggressive cleaning agents or abrasive cloth to clean the display. Simply use a soft cotton cloth lightly damped with water.

4. CONNECTION PANELS – DESCRIPTION

4.1 INPUT SIGNALS

MASTER-INPUT

1. **HIGH INPUT:** High level input switch

2. **AUX IN L - R:** auxiliary low-level stereo input.
   The ADSP6 comes with an auxiliary stereo signal input to connect an external source, mp3 player, audio sources. Input sensitivity is adjustable from 0.6 to 5 V RMS.

Remark: If a low-level output source (PRE OUT) with output signal equal or greater than 2 V RMS is available, you can connect it to the high-level MASTER inputs (SPEAKERS).
Sensitivity is increased by adjusting the IN LEVEL controls.

4.2 OUTPUT SIGNALS

1. G/H

2. USB

USB (type B) connection plug, to connect the processor to a PC and manage its functions through the ADSP6 software. The connection standard is USB 1.1 / 2.0 compatible.

POWER SUPPLY

1. post GND
2. post +12V
3. post REM IN
4. post REM OUT
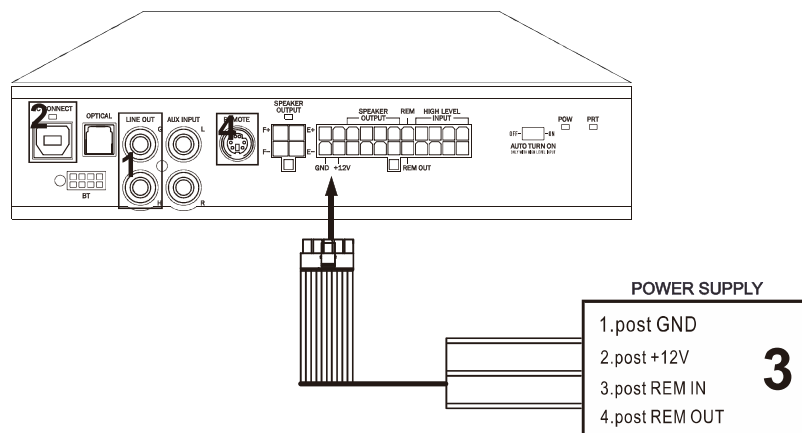
4.3 INPUTS – REMOTE CONTROL OUTPUTS AND POWER SUPPLY

3. POWER SUPPLY.

+12V: Positive connection terminal for car 12V power supply.

GND: Power supply negative connection terminal (GND).

WARNING: make sure the connection polarity is as indicated on the terminals. A misconnection may result in damage to the ADSP6. After applying power, wait at least 10 seconds before turning the ADSP6 on.
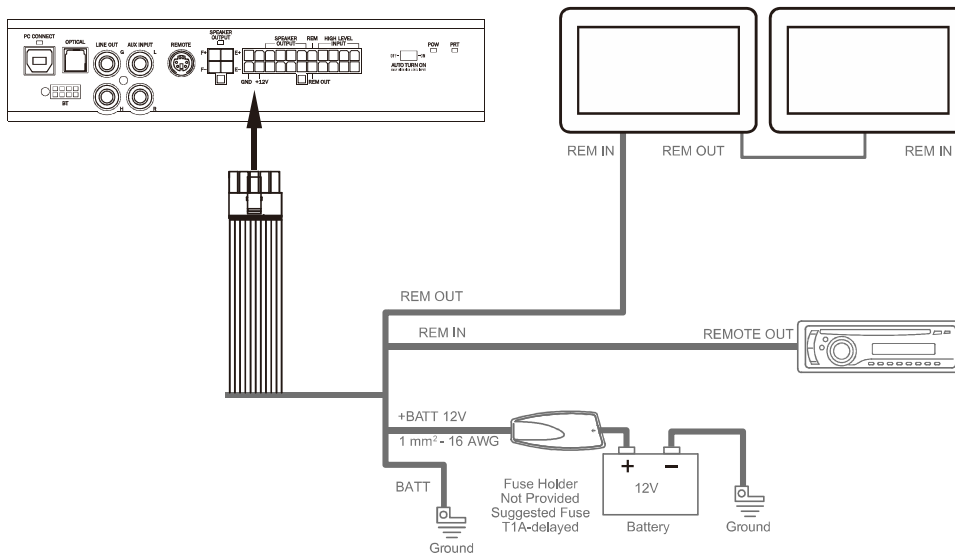
4. REMOTE SOCKET: Only for remote control of spare parts.

WARNING: the ADSP6 must be switched on before any amplifiers are turned on. The system sources Remote Out must be connected to the product REM IN, and the product REM OUT is then to be connected to the Remote In of other devices / amplifiers.
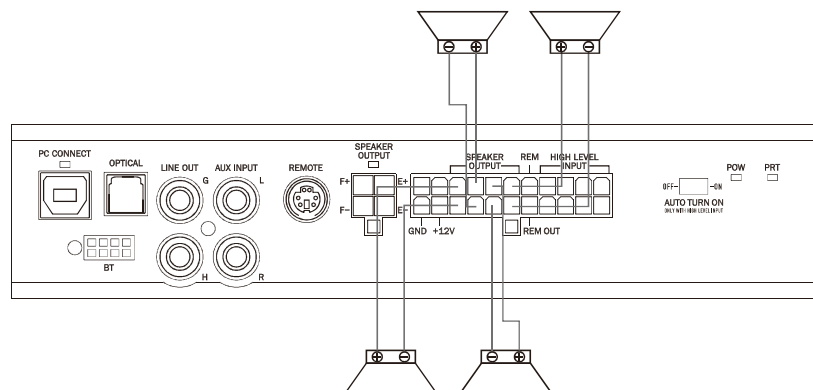
5 CONNECTIONS

5.1 POWER SUPPLY AND REMOTE TURN ON

⚠ **WARNING:** to power the device, use 1 mm^2 (16 AWG) cables.

REM IN   REM OUT   REM IN

REM OUT

REM IN   REMOTE OUT

+BATT 12V
1 mm^2 - 16 AWG

BATT

Fuse Holder
Not Provided
Suggested Fuse
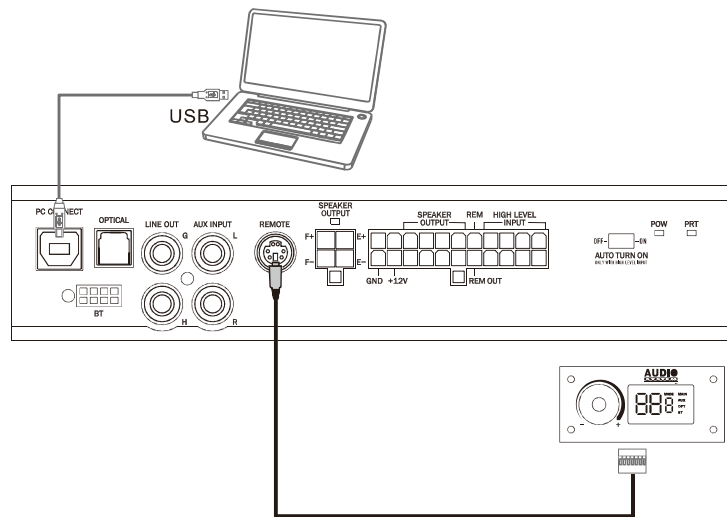T1A-delayed

+   −
12V
Battery

Ground

Ground

Ground

Remark: There is no fuse in DSP. We recommend on ecternal fuse device.

5.2 SPEAKER WIRING
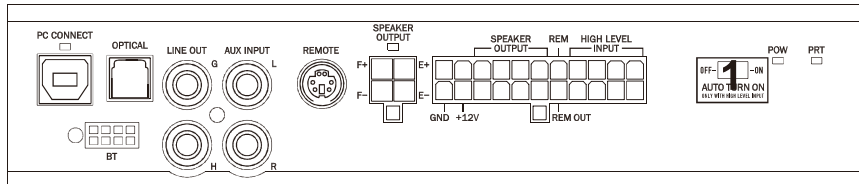
7

5.3 PERSONAL COMPUTER AND DIGITAL REMOTE CONTROL (DRC)

5.4 HIGH-LEVEL INPUT SIGNALS

1. SPEAKERS IN HI-LEVEL STEREO FRONT+REAR

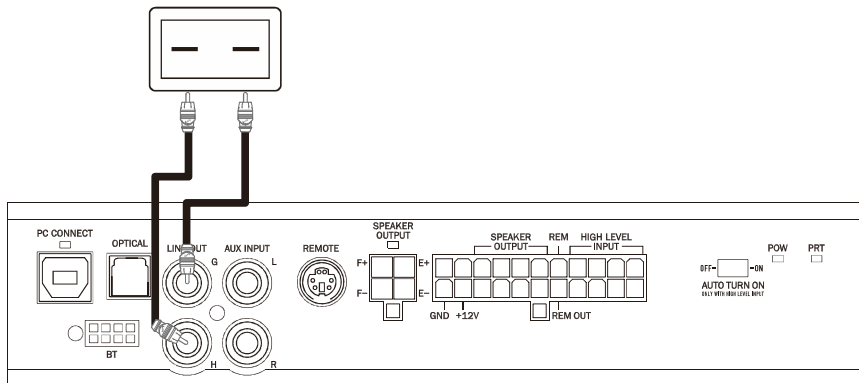AMPLIFIED RADIO DECK
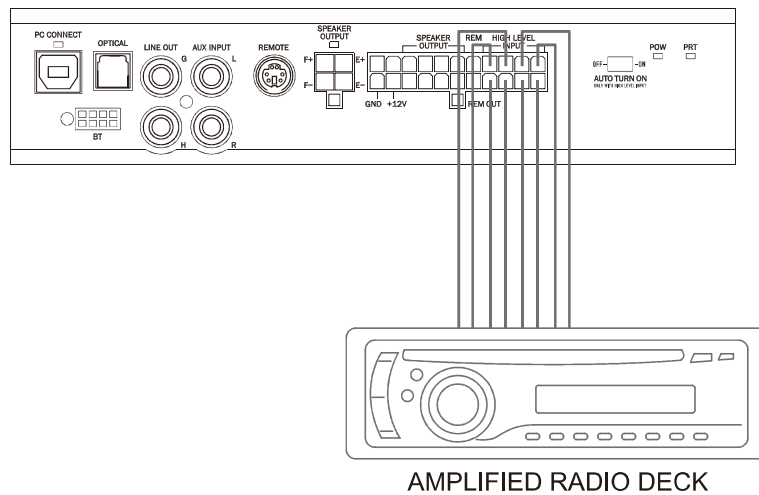
5.5 LOW-LEVEL INPUT SIGNALS

1. **AUTO TURN ON**
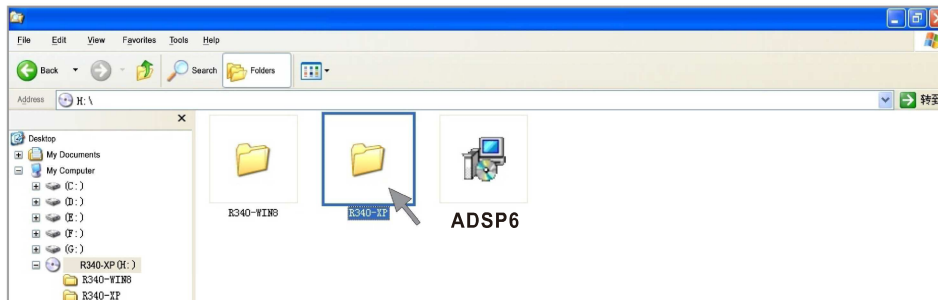   Signal auto power on and ACC power on selection.
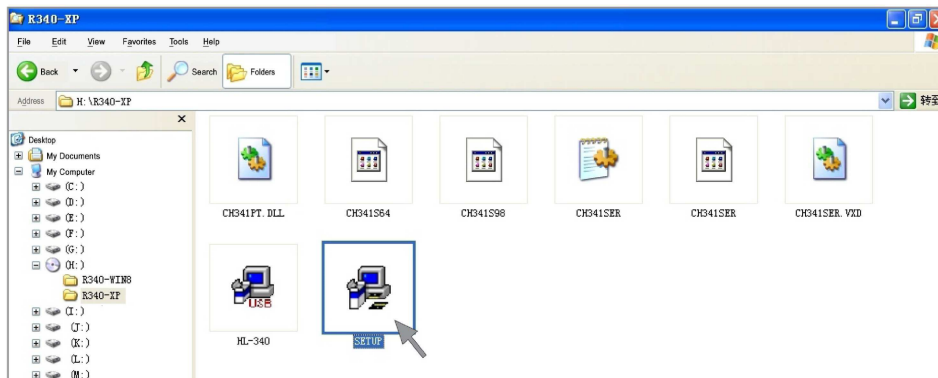
5.6 OUTPUT SIGNALS

OUTPUT TO AN AMPLIFIER'S SYSTEM

6 SOFTWARE INSTALLATION
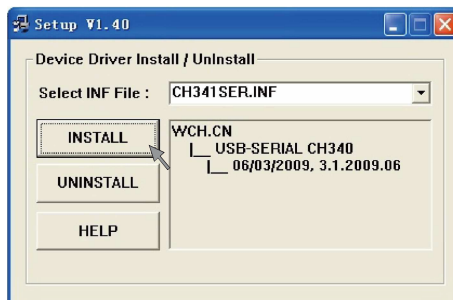
6.1 USB DRIVER INSTALLATION

1. Insert CD, select installation file according to your computer system in ADSP6 folder.
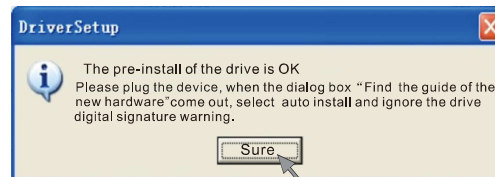

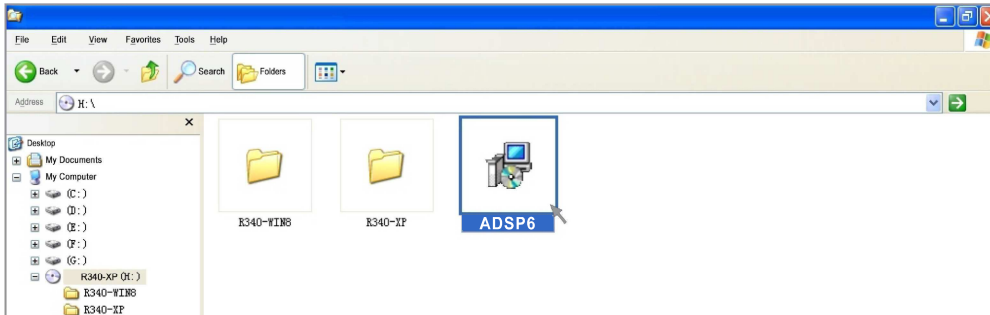2. Double - Click SETUP to begin installation

3. Start installation

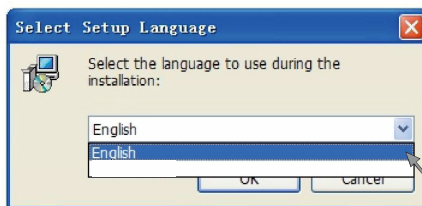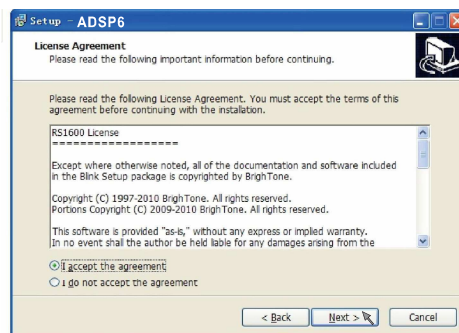4. Click confirm to finish installation

6.2 DSP GUI INSTALLATION
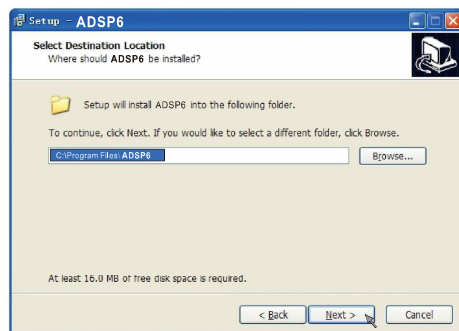
1. Double - click **ADSP6**

2. Pick your language

3. Click NEXT

4. Choose "I accept the agreement"
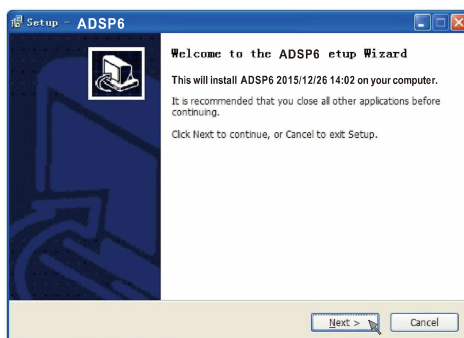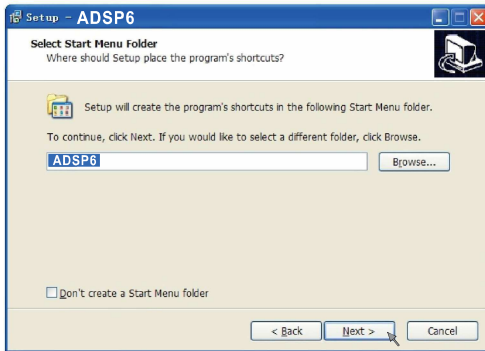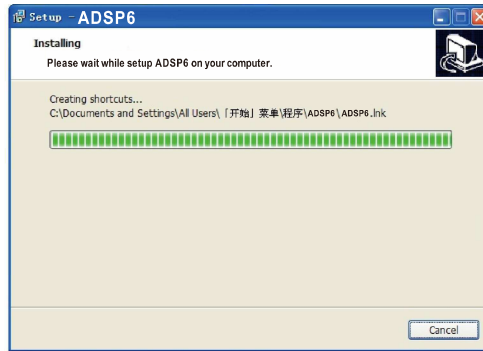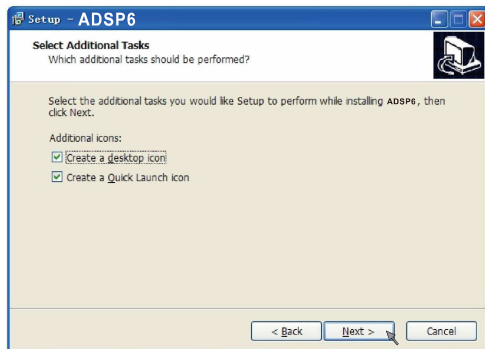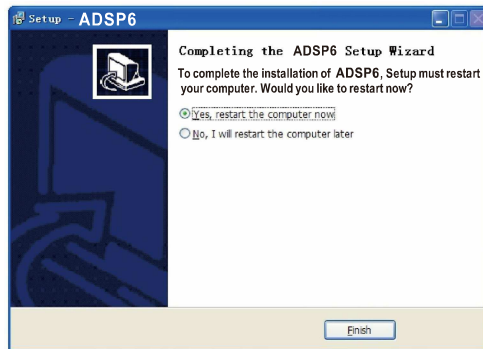

5. Set install location

6. Click NEXT

9. Wait until the process finish

7. Creat shortcut to desktop

10. Installation completed, reboot computer

8. Click Install to begin
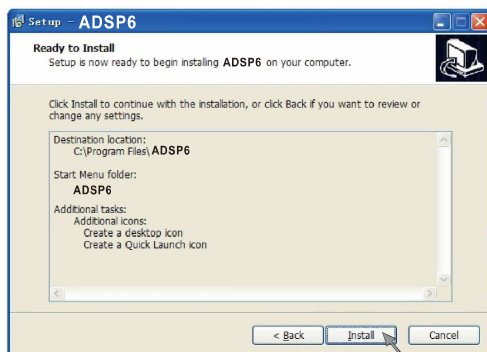
7 GUI OPERATION INSTRUCTION

7.1 GUIDE TO GUI AFTER INSTALLATION

1. Double - click icon of DSP_DSP6

2. Mode selection (Online mode must be selected after PC connected to DSP)
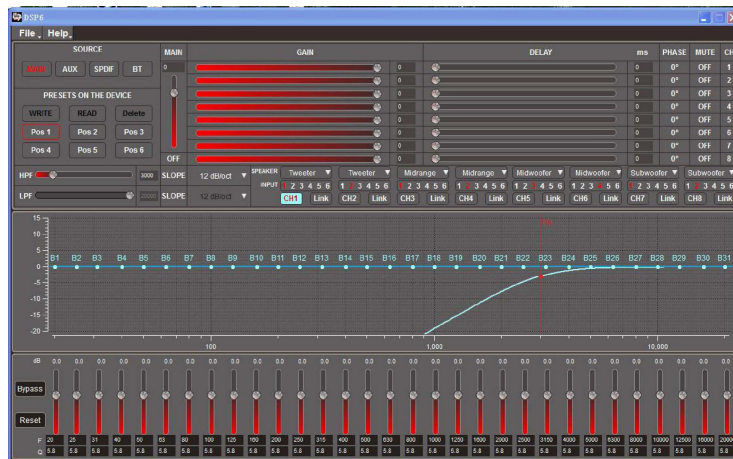
3. Sound channel configuration

4. Enter the GUI you long for! Now you could tone every signal details as experts do to bring sound effect on your beloved car to a higher level.
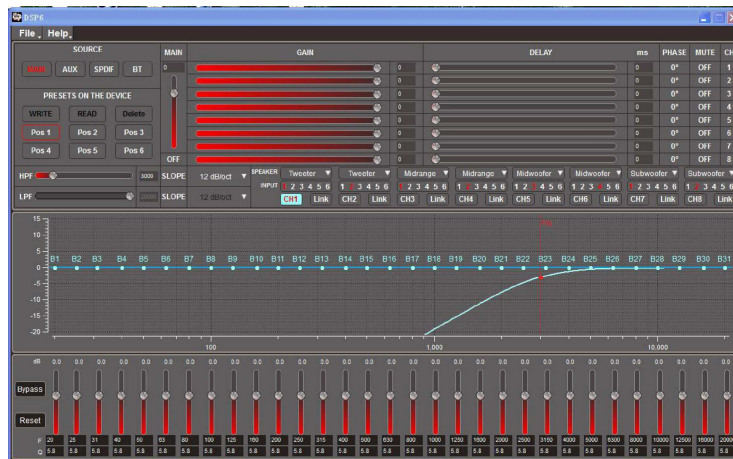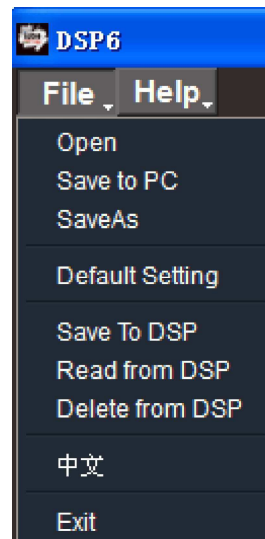
7.2 INTERFACE INTRODUCTION

1. DSP interface guidance
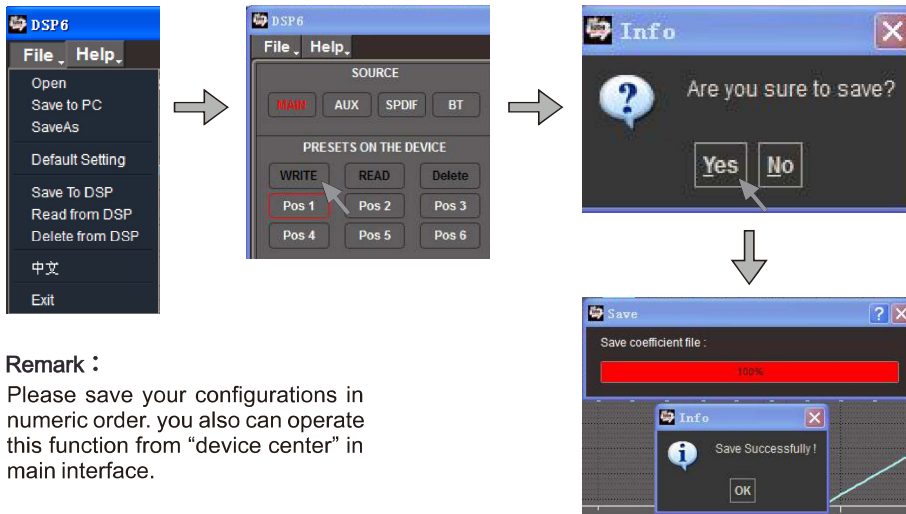

2. "FILE" MAIN MENU ①

1. Open (To load preset file in PC folder)

2. Save (To save setting to PC)

3. Default setting (restore to default setting)

4. Input signal mixed in the channel configuration interface: select the mix, and system login the input signal fuction.

Download (store set configuration into DSP)

Remark :
Please save your configurations in numeric order. you also can operate this function from "device center" in main interface.

1. "INPUT MODE" ①
To select different input devices.

2. "CHANNEL SETING" ②
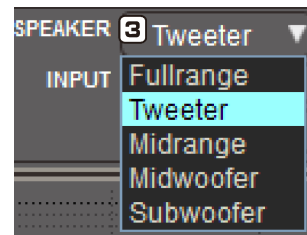Options on the left side are for combine setting for L CH and R CH.
Options on the right side allow you tone each selected channel respectively.

3. "CROSSOVER X-TYPE" ③
To choose different crossover type, for example select CH selection on 3rd spot, That would locate CH you want to choose for crossover configuration.
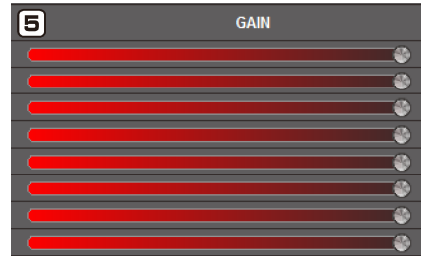
4. "CROSSOVER FREQUENCY" ④
Set frequency of LP/HP individually.

15

5. "GAIN" ⑤

"0--40dB" is optional range for gain control of every CH .
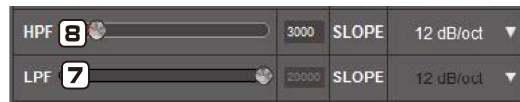
6. "DELAY" ⑥

1.Auto configuration (base on 1.5 setting)
2.Manual configuration, change specifications
  in selected CH manually.

7. "LP/SLOPE" ⑦

6dB/oct、12dB/oct、18dB/oct、24dB/oct、30dB/oct、36dB/oct、
42dB/oct、48dB/oct are available.
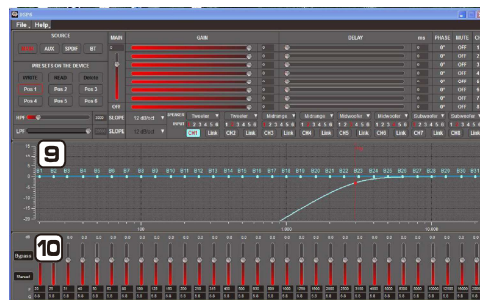
8. "HP/SLOPE" ⑧

6dB/oct、12dB/oct、18dB/oct、24dB/oct、30dB/oct、36dB/oct、
42dB/oct、48dB/oct are available.
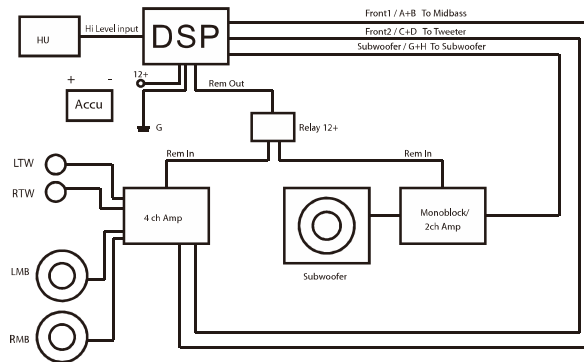
9. "X-OVER AND EQ CHARTS" ⑨

Red lines and slopes will change accordingly when
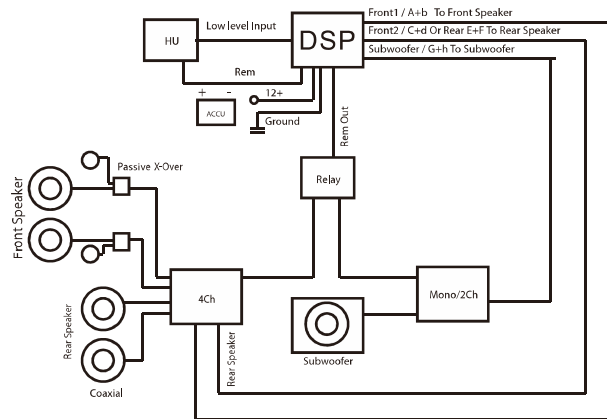HP/LP of crossover and EQ are modified.
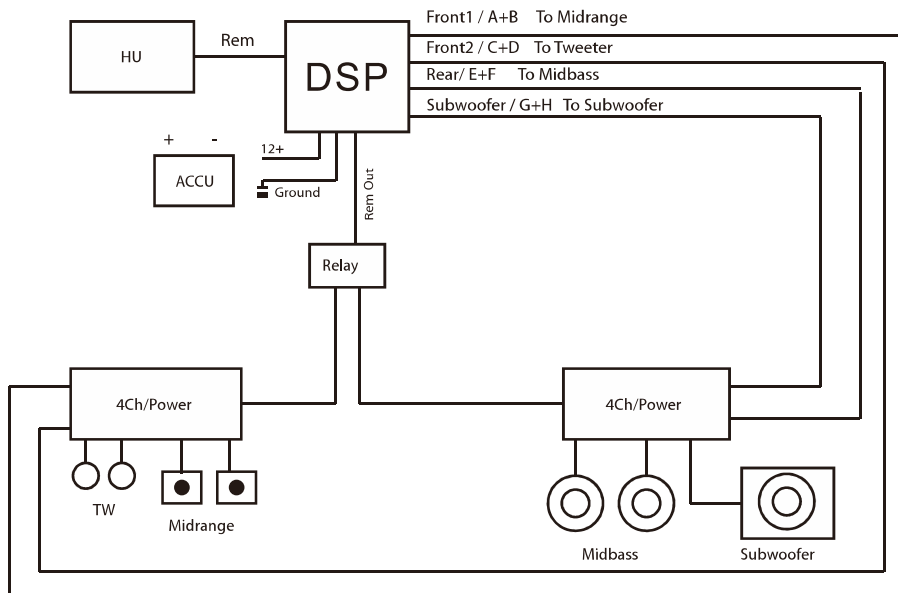
10. "EQ SETTING" ⑩

8. STANDARD INSTALLTION REFERENCE
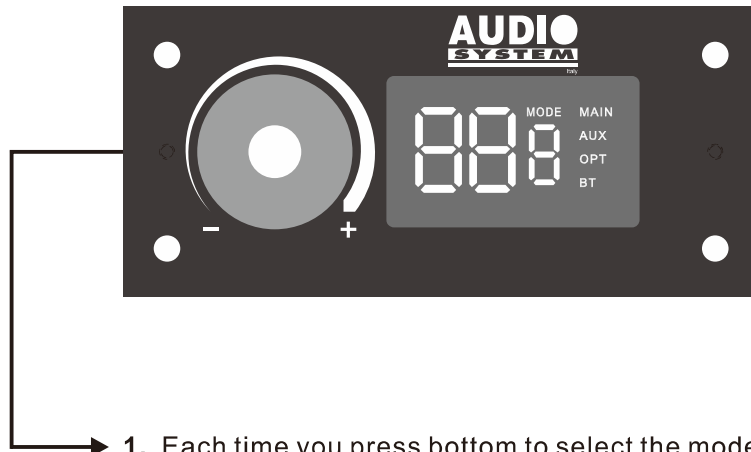
8.1 5 CHANNEL STAND ALONE TREBLE MODE

8.2 5 CHANNEL PASSIVE X-OVER TREBLE MODE

17

8.3 8 CHANNEL SEPARATE TREBLE, MIDDLE MODE

SPEAKER	Tweeter ▼		Tweeter ▼		Midrange ▼		Midrange ▼		Midwoofer ▼		Midwoofer ▼		Subwoofer ▼		Subwoofer ▼	
INPUT	1 2 3 4 5 6		1 2 3 4 5 6		1 2 3 4 5 6		1 2 3 4 5 6		1 2 3 4 5 6		1 2 3 4 5 6		1 2 3 4 5 6		1 2 3 4 5 6	
	CH1	Link	CH2	Link	CH3	Link	CH4	Link	CH5	Link	CH6	Link	CH7	Link	CH8	Link

Front1 / A+B   To Midrange
Front2 / C+D   To Tweeter
Rear/ E+F   To Midbass
Subwoofer / G+H   To Subwoofer

HU — Rem — DSP

+   -
ACCU
12+
Ground
Rem Out
Relay

4Ch/Power
TW   Midrange

4Ch/Power
Midbass   Subwoofer

18

9 REMOTE INTRODUCTION

1. Each time you press bottom to select the mode

2. Switch to change the value after selected the mode

3. Long press 3 seconds to mute