

# audison



## **FORZA**

### **AP F1 D**

# USER'S MANUAL

rel. 1.0



ideato,  
progettato,  
costruito  
in Italia

[audison.com](http://audison.com)



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## 1 PRECAUTIONS

### English

**Before installing the components, please carefully read all of the instructions contained in this manual. It is advisable to carefully follow the highlighted instructions. Failure to respect these instructions may cause unintentional harm or damage to the components.**

#### SAFETY CONSIDERATIONS

1. Make sure your car has a 12 volt DC negative ground electrical system.
2. Do not install components inside the engine compartment or expose them to water, excessive humidity, dust or dirt.
3. Never run cables outside the vehicle or install the amplifier next to mechanical or electronic devices.
4. Operate the AP F1D only when internal temperature is between 0°C (32°F) and 55°C (131°F). The AP F1D must have a minimum 3 cm (1.5") distance from any structure. There must be good air circulation around the chassis.
5. Make sure the location you chose for the component does not affect the correct functioning of the vehicle's mechanical and electrical devices.
6. Make sure the power cable does not short circuit during installation and connection.
7. Use extreme caution when cutting or drilling the car chassis, checking that there is no electrical wiring or structural elements underneath.
8. Use rubber grommets to protect the wire when running through holes in metal and use proper materials if close to heat-generating devices.
9. Make sure all the cables are properly secured along their entire length. Also, make sure their outer protective jacket is flame resistant and self extinguishing. Secure the connected cables close to the terminal blocks with wire ties or clamps.
10. Pre-plan the configuration of your new AP F1D and the best wiring routes to ease installation. Use high quality cables, connectors and accessories, as you will find in the Audison catalogue.

#### HOW TO CONNECT THE AP F1D

The following graphics represent the main steps for the AP F1D connections. Its universality and versatility offer endless possibilities and configurations. Specific steps or different procedures may be required in some applications. If you have any questions about configuration or function, please refer to the Advanced Manual that you can find in the CD inside the gift box or contact your Audison dealer or Audison authorized service center for assistance. For its operation and for any other need, please refer to the following pages of this manual

1. Before installing the AP F1D, disconnect the sound and all other electronic devices in the audio system to prevent any possible damage.
2. Run a specifically designed power cable with proper diameter (8 AWG, Ø 3.2mm/0.128") from the AP F1D battery.
3. Connect the power cables observing correct polarity. Connect the (-) terminal to the car chassis first, then connect the (+) terminal to the cable coming from the battery. To correctly ground the product (- GROUND) use a fixing point in the vehicle chassis; remove all paint or grease from the metal if necessary, checking with a volt meter that there is continuity between the battery negative terminal (-) and the chosen fixing point. The power connector accepts an 8 AWG (Ø 3.2mm/0.128") 15mm/0.6" peel-off cable. If possible, connect all components to the same ground point; this solution rejects most undesired noise which can be generated during the audio reproduction.
4. Put an insulated fuseholder maximum 20 cm far from the battery positive terminal; connect one end of the power cable to it after connecting its other end to the amplifier.
5. **TURN ON:** the AP F1D can be turned on through:
  - Remote In, by connecting the terminal to the Rem Out of an After Market head unit or from the relaunch wiring of an amplifier from the Prima AP F8.9 bit / AP 8.9 bit / AP 4.9 bit line.

The logo on the top side of the heatsink lights blue, indicating that the product is on. A flashing of the RED logo every second indicates the activation of the thermal protection 2 flashes of the RED logo every second indicate an "OVERLOAD" / Fault in the wiring of the speakers, 4 flashes of the RED logo every second indicate the activation of the "OVERVOLTAGE" protection caused by a battery voltage higher than 16V, the RED logo turning on indicates an internal failure of the product, please contact the authorized customer service center.
6. **SPK IN: HI LEVEL** monophonic analog input. Use the multipoint connector provided to connect to an amplified source or an amplifier from the Prima line AP 4.9 bit. The signal to be applied must have a level between 2 and 20 V RMS. The input sensitivity of the AP F1D is controlled by the "SENSITIVITY" 3-position switch: 2V-6.5V-20V.
7. **PRE IN:** Low level monophonic analog input. Use an RCA connector to connect to an audio source or to an amplifier from the "Prima AP F8.9 bit / AP 8.9 bit / AP 4.9 bit" line featuring this connection. The signal to be applied must have a level between 0.6 and 6 V RMS. The input sensitivity of the AP F1D is controlled by the "SENSITIVITY" 3-position switch: 0.6V-2V-6V.
8. **SPEAKER OUT:** power terminal + and - of the monophonic output. The available power at the output is 500 W x 1 @ 4 ohm, 800 W x 1 @ 2 ohm and 1000 W x 1 @ 1 ohm.
9. **FUSE:** to replace the fuse, remove it from its holder located near the power supply terminal block and replace it with another fuse of equal value.
10. **INSTALLATION:** All components must be solidly fixed to the vehicle structure. Do the same when installing any additional custom structures you may have built. Make sure that your installation is solid and safe. A component coming loose while driving may cause serious damage to the passengers, as well as to other vehicles. When the installation is complete, check the system wiring and verify all connections were performed correctly.
11. For a correct use of the AP F1D, it is essential to consult this manual in its entirety.
12. **Warranty Certificate:** please check out the Audison website for further information.

#### SAFE SOUND

USE COMMON SENSE AND PRACTICE SAFE SOUND. PLEASE REMEMBER THAT LONG EXPOSURE TO EXCESSIVELY HIGH SOUND PRESSURE LEVELS MAY DAMAGE YOUR HEARING. SAFETY MUST BE AT THE FOREFRONT WHILE DRIVING.

**Information on electrical and electronic equipment waste (for those European countries which organize the separate collection of waste)**



Products which are marked with a wheeled bin with an X through it can not be disposed of together with ordinary domestic waste. These electrical and electronic products must be recycled in proper facilities, capable of managing the disposal of these products and components. In order to know where and how to deliver these products to the nearest recycling/disposal site please contact your local municipal office. Recycling and disposing of waste in a proper way contributes to the protection of the environment and to prevent harmful effects on health.

## ■ Audison Warranty

The **Audison** products are warranted, under normal functioning conditions, for the period of time as set by the laws in force, against defects concerning materials or their manufacturing. The warranty is valid from the date of purchase, certified by receipt.

The warranty is not valid if:

- the product is damaged by incidents, installations and/or improper use, or by any other causes not depending on materials or manufacturing defects;
- the product is modified or tampered with by unauthorised people;
- its serial number has been altered or cancelled.

While the product is under warranty, defective parts will be repaired or replaced at the manufacturer's discretion.

The defective product, along with notification about it, must be returned to the dealer from which it was purchased together with the warranty certificate duly filled in. If the product is no longer under warranty, it will be repaired at the current costs.

Elettromedia s.r.l. does not undertake any liability for damages due to transportation.

Elettromedia s.r.l. does not take any responsibility for: costs or loss of profit due to the impossibility to use the product, other accidental or consequential costs, expenses or damages suffered by the customer.

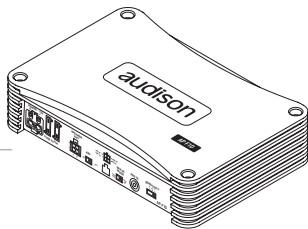
Warranty according to laws in force.

For more information visit the **Audison** website.

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## 2 PACKAGING CONTENT

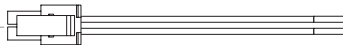
- **AP F1D amplifier** \_\_\_\_\_



- Multipolar cable, Inputs/Rem: \_\_\_\_\_



- Multipolar cable Speakers out: \_\_\_\_\_



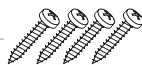
- NR. 2 - 30A replacement fuse: \_\_\_\_\_



- 2.5 mm hex key: \_\_\_\_\_



- NR. 4 - 4.2 x 50 mm (0.16" x 2") self-tapping, cross head mounting screws: \_\_\_\_\_

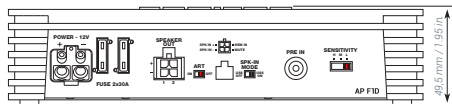
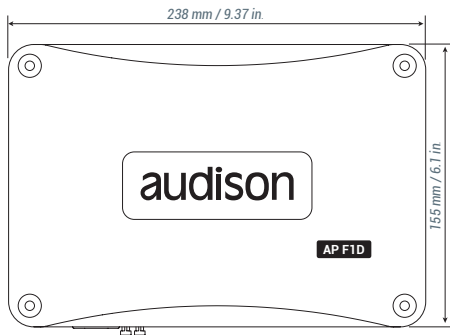


- User's Manual \_\_\_\_\_



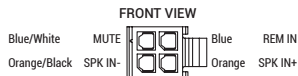
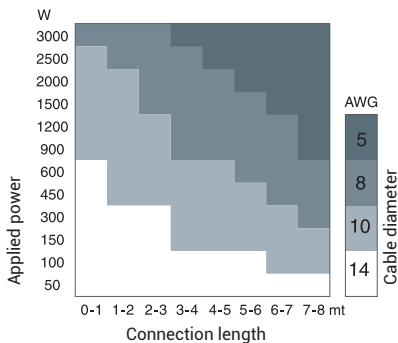
### 3 INSTALLATION AND SIZE

#### External Size



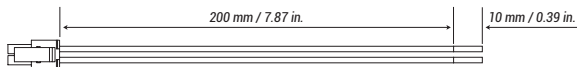
## 4 CABLE SIZE CALCULATION TABLES

Power & Ground cable calculation table										Cable Size							
Minimum gauge size recommended for MAINPOWER & POWER FLOW cables, MAINPOWER cables ensure higher instantaneous current transfer,																	
* Current Draw I (A)	240-350									1/0	53,5						
	180-240									2	33,6						
	150-180									4	21,2						
	120-150									8	8,4						
	100-120									10	5,3						
	80-100									12	3,3						
	60-80									14	2,1						
	40-60									16	1,3						
	20-40									18	0,8						
	8-20																
	0-8																
										Cable length (m)							
										0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8

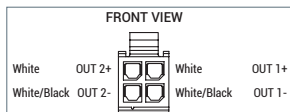
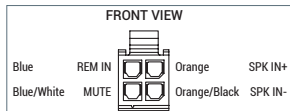
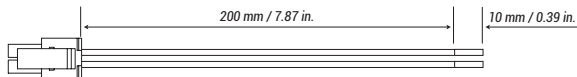


## 5 CONNECTION CABLE

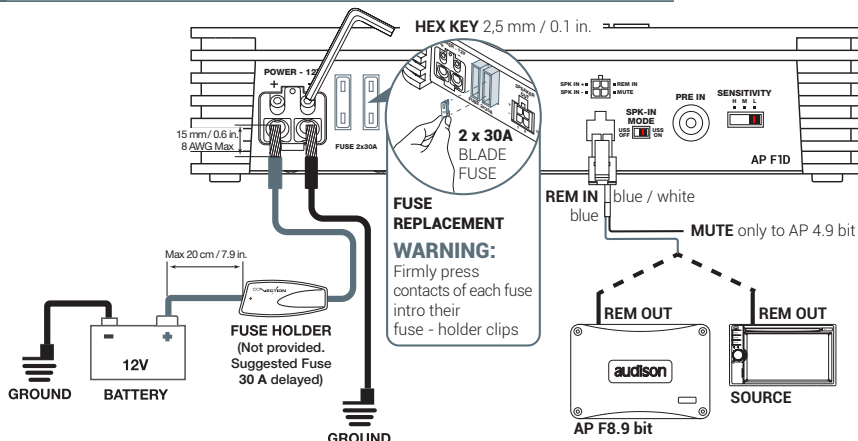
### Input cable



### Speaker out cable



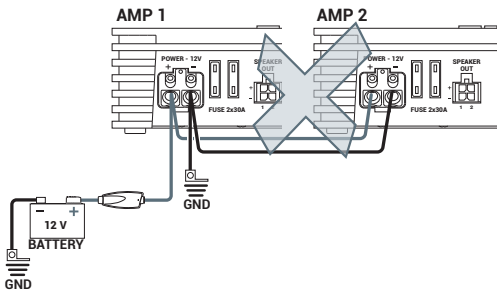
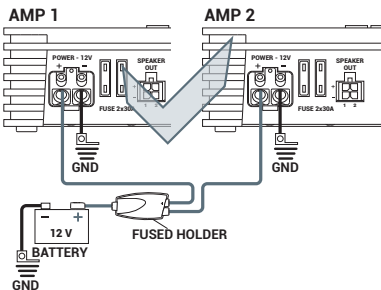
## 6 POWER SUPPLY AND REMOTE CONNECTION / FUSE REPLACEMENT



### MULTIPLE POWER SUPPLY CONNECTION



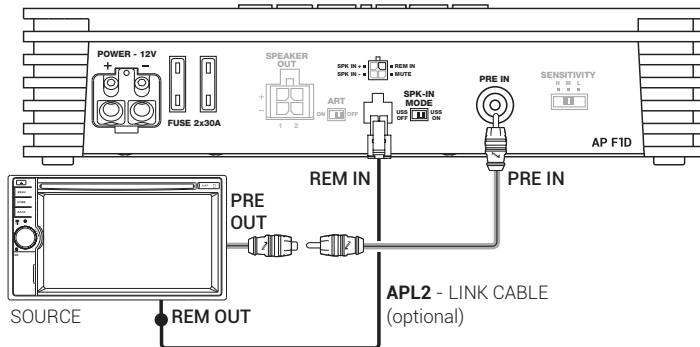
**WARNING**



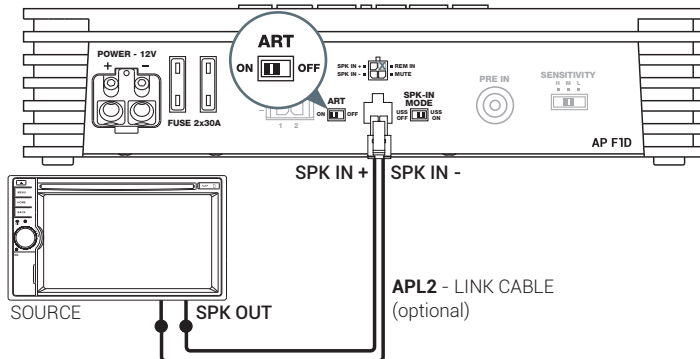


## 7 PRE IN / SPEAKER IN

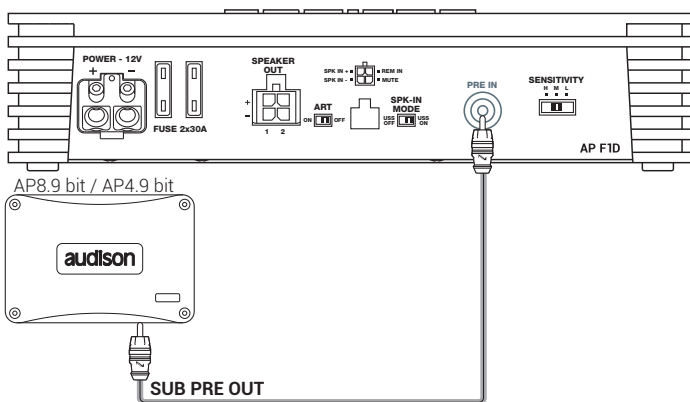
AP F1D with REM IN



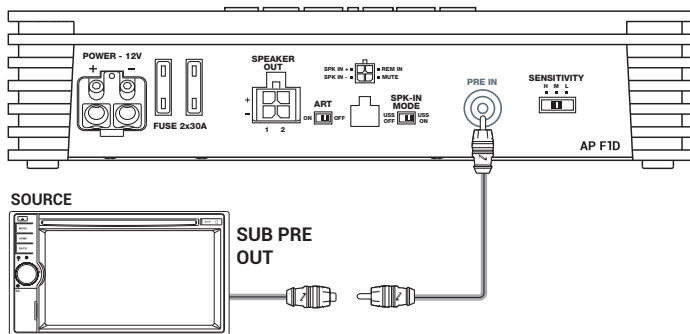
AP F1D without REM IN

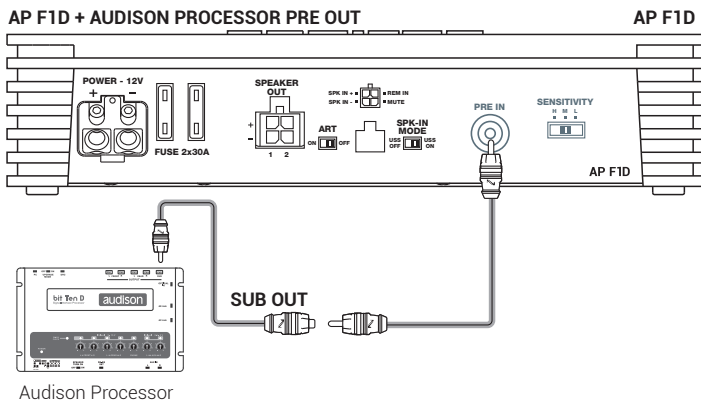


### AP F1D + AP8.9 bit / 4.9 bit PRE OUT

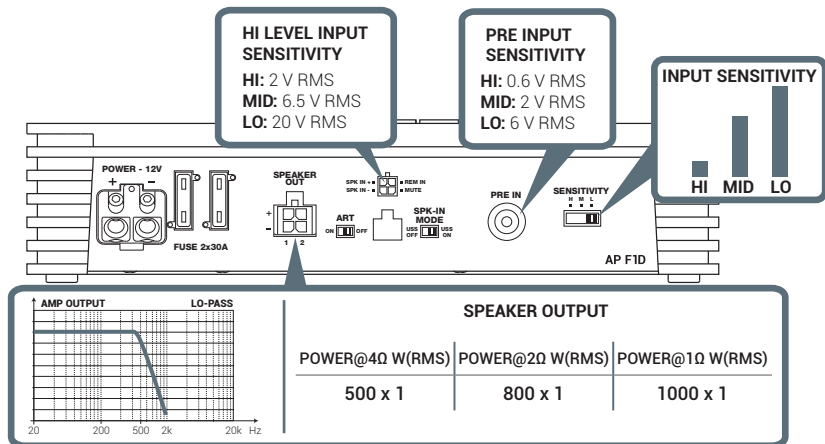
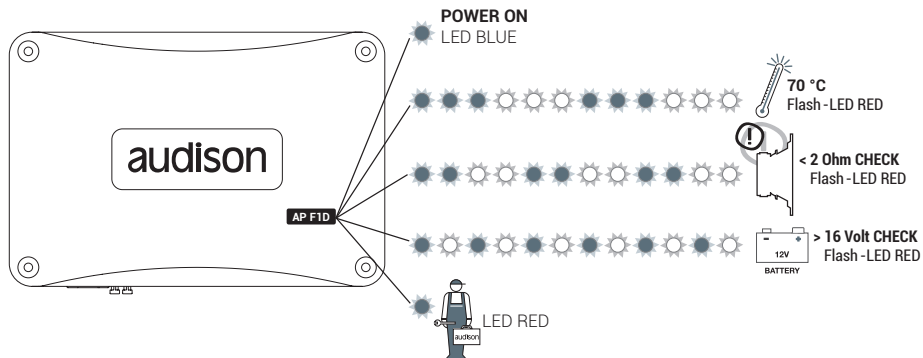


### AP F1D + HEAD UNIT PRE OUT





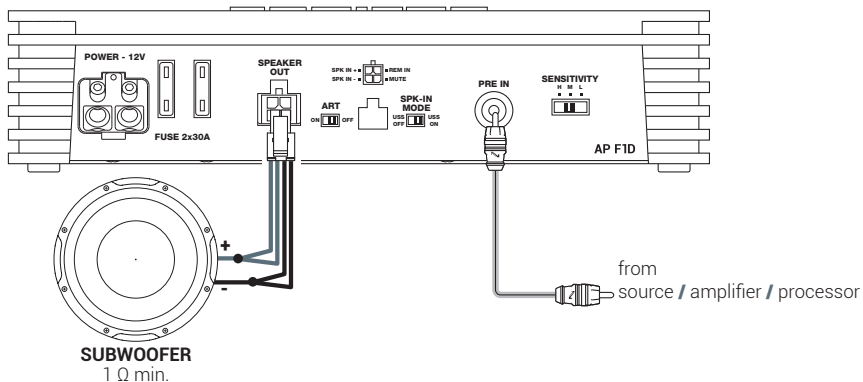
## 8 CONTROL PANEL



## 9 INSTALLATION EXAMPLES

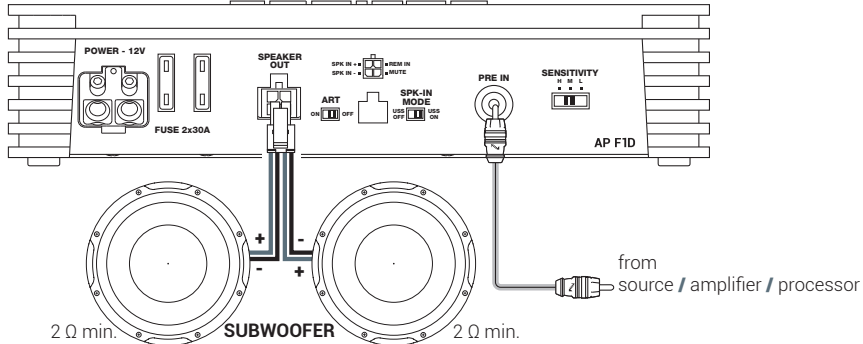
AP F1D with 1 SUBWOOFER

AP F1D



AP F1D with 2 SUBWOOFER

AP F1D





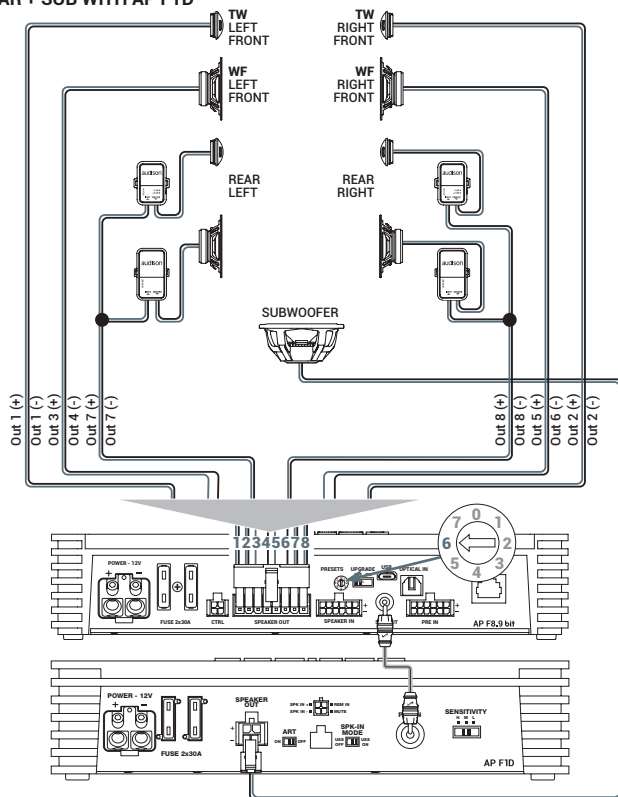
**OUTPUT CONFIGURATION:**

AP TYPE	OUTPUT	TYPE	CUT FILTER	FILTER TYPE	CUT FREQUENCY	TIME ALIGNMENT*	POWER 4Ω	POWER 2Ω
AP F8.9 bit (not supplied)	OUT 1	FRONT TW LEFT	HI PASS	Linkwitz	3000 Hz @12 dB	82,2 cm	85 W	130 W
	OUT 2	FRONT TW RIGHT	HI PASS	Linkwitz	3000 Hz @12 dB	116,2 cm	85 W	130 W
	OUT 3	FRONT MD LEFT	BAND PASS	Linkwitz	500 Hz @12 dB 3000 HZ @ 12 dB	82,2 cm	85 W	130 W
	OUT 4	FRONT MD RIGHT	BAND PASS	Linkwitz	500 Hz @12 dB 3000 HZ @ 12 dB	116,2 cm	85 W	130 W
	OUT 5	FRONT WF LEFT	BAND PASS	Linkwitz	80 Hz @12 dB 500 HZ @ 12 dB	82,2 cm	85 W	130 W
	OUT 6	FRONT WF RIGHT	BAND PASS	Linkwitz	80 Hz @12 dB 500 HZ @ 12 dB	116,2 cm	85 W	130 W
	OUT 7	REAR LEFT	HI PASS	Linkwitz	80 Hz @12 dB	62,3 cm	85 W	130 W
	OUT 8	REAR RIGHT	HI PASS	Linkwitz	80 Hz @12 dB	116,2 cm	85 W	130 W
AP F1D	SPK OUT	SUBWOOFER	LO PASS	Linkwitz	80 Hz @12 dB	121,8 cm	500 W	800 W

**1480 W** = RMS power at suggested loads: 1480 W

Note

## 9.2 FRONT + REAR + SUB WITH AP F1D





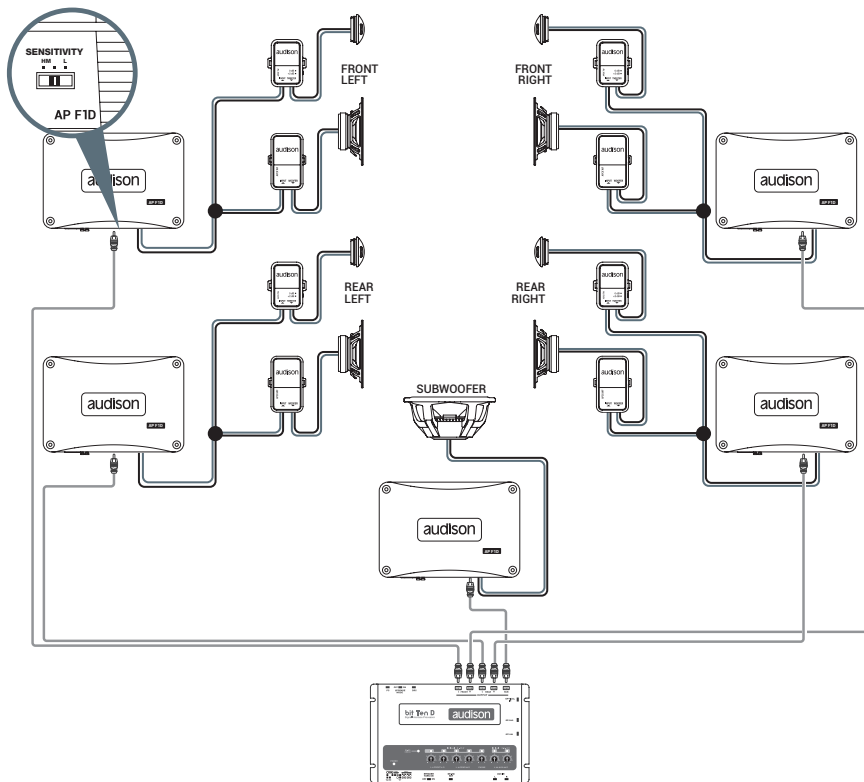
# OUTPUT CONFIGURATION:

AP TYPE	OUTPUT	TYPE	CUT FILTER	FILTER TYPE	CUT FREQUENCY	TIME ALIGNMENT*	POWER 4Ω	POWER 2Ω
AP F8.9 bit (not supplied)	OUT 1	FRONT TW LEFT	HI PASS	Linkwitz	3000 Hz @12 dB	82,2 cm	85 W	130 W
	OUT 2	FRONT TW RIGHT	HI PASS	Linkwitz	3000 Hz @12 dB	116,2 cm	85 W	130 W
	OUT 3+ / 4-	FRONT WF LEFT	BAND PASS	Linkwitz	80 Hz @12 dB 3000 HZ @ 12 dB	82,2 cm	260 W	-
	OUT 5+ / 6-	FRONT WF RIGHT	BAND PASS	Linkwitz	80 Hz @12 dB 3000 HZ @ 12 dB	116,2 cm	260 W	-
	OUT 7	REAR LEFT	BAND PASS	Linkwitz	80 Hz @12 dB	62,3 cm	85 W	130 W
	OUT 8	REAR RIGHT	BAND PASS	Linkwitz	80 Hz @12 dB	116,2 cm	85 W	130 W
AP F1D	SPK OUT	SUBWOOFER	LO PASS	Linkwitz	80 Hz @12 dB	121,8 cm	500 W	800 W

= RMS power at suggested loads: 1660 W

Note

### 9.3 FRONT+REAR+ SUB WITH AUDISON BIT PROCESSOR



## 10 TECHNICAL SPECIFICATION

### POWER SUPPLY

Power supply voltage / fuse:	11 ÷ 15 VDC / 2 x 30A
Operating power supply voltage	6.5 ÷ 17 VDC
Idling current:	1.3 A
Idling current when off	0.05 mA
Consumption @ 14.4 VDC, 1Q, Max Musical Power:	50 A
Remote IN	6.5 ÷ 15 VDC (1 mA)
ART - Automatic Remote Turn on/off from OUTPUT BTL speakers (Selectable)	2 ÷ 7 VDC

### AMPLIFIER STAGE

Distortion - THD @ 100 Hz, 4Q, 70% Rated Power:	0.1 %
Damping factor @ 100 Hz, 4Q, 2 VRMS:	140
Bandwidth @ -3 dB:	10 Hz ÷ 500 Hz
S/N ratio (A weighted @ 1 V Input):	110 dBA
Input sensitivity PRE IN:	Selectable: 0.6 - 2.0 - 6.0 VRMS
Input sensitivity SPEAKER IN:	Selectable: 2.0 - 6.5 - 20 VRMS
Minimum load impedance	1Q
Output power (RMS) @14.4 VDC, 1% THD:	
• 1 Ch @ 4Q	500 W x 1
• 1 Ch @ 2Q	800 W x 1
• 1 Ch @ 1Q	1000 W x 1

### CEA SPECIFICATION

 Output power @ 4Q, 1% THD+N, 14.4 V	500 W
SN ratio (ref. 1 W output)	81,5 dB

### INPUTS

Pre-In Inputs	RCA
Speaker-In Inputs	wired
Mute (Energy Saving control)	wired (active to ground)

### OTHER

Ambient operating temperature range	0 °C to 55 °C (32 °F to 131 °F)
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### SIZE

Max Size W x H x D (mm/inch)	238 x 49,5 x 155 / 9,37 x 1,95 x 6,1
Weight (kg/lbs)	1,92 / 4,23



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Tutte le specifiche riportate sono soggette a cambiamento senza preavviso  
All specifications subject to change without notice

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