SPECIFICATIONS

MODELO: S 35	1 OHM	0,5 OHM
Channels:	1	1
Power RMS:	35.200 Watts (1 OHM) @ 250V	34.500 Watts (0,5 OHM*) @ 176V
Power RMS:	17.600 Watts (2 OHMs) @ 250V	17.250 Watts (1 OHM) @ 176V
Power RMS:	8.800 Watts (4 OHMs) @ 250V	8.620 Watts (2 OHMs) @ 176V
Maximum Supply Voltage:	315V	176V
Frequency Response:	20 Hz to 2KHz	(* - 0,5 OHM = RE)
Crossover Low Pass:	50 Hz to 2KHz	
Subsonic Filter:	20Hz to 80 Hz	
Total Harmonioc Distortion:	< 1%	
Signal to Noise:	> 90 dB	
Sensitivity Minimum Input:	0,2V	
Input Impedance:	20K OHMS	
Minimum Output Impedance:		
20 Batteries - 250V	**1 OHM**	**-**
14 Batteries - 176V	**-**	**0,5 OHM**
Bat. Automotive / Signal Musical:	50A	50A
Bat. Stationary / Sinal Musical:	100A	100A
Consumption / Sinal BASS:	190A	
Consumption Max @ 12,6V:	20A	
Dimensions (A x L x C) mm:	77 x 525 x 355	
Weight:	13 Kg	

NOTE: THE ABOVE SPECIFICATIONS ARE RELATED TO A SINGLE PRODUCT. SPEAKER IS DIVIDED IN 2 TO FACILITATE UNDERSTANDING OF THE VARIOUS APPLICATIONS (1 OHM and 0.5 OHM).

WHAT TO DO IN CASE OF PROBLEMS

NOT TURN ON:
- The cables are not properly connected (terminals +BATT, GND and REM). Make sure that all connections are mechanical and electrical contact.
- Fuses / breakers (external) are defective or burned. Pay attention to the correct value of the new fuse!

NO SOUND:
- The cables of the speakers or RCA plugs are not connected correctly.
- Check that the LEVEL control is not in the minimum.

NO SOUND/PROTECTION RED LED FLASHING:
- See diagnosis UP (SYSTEM TROUBLESHOOTING).
- The speakers or cables defectives thus check the speakers, cables and connections.

POOR SOUND QUALITY (DISTORTION):
- The speakers are overloaded, therefore decrease the level and redo the gain setting (See item 2 / OVERVIEW).

WEAK BASS:
- Cables speakers (+) and (-) are reversed, speaker out of phase (see Section 7 / overview).

MOTOR NOISE, HORN, SIGNAL LIGHT, ETC:
- Use suppressive cables in ignition candles.
- Use capacitors in the alternator, horn and ignition.
- Pass the RCA cable away from any other cable, because it is more sensitive to interference.
- Connect to power (+12 V) to separate the sound system. Use a fuse to 30 cm from the battery for protection.
- Make a good grounding of the amplifier. To do this removes the paint from the chassis of the vehicle at the desired point. Screw the cable using a ground terminal. To protect from oxidation, insulate with paint.
- Do not loop the ground wire. Avoid using several ground wires. Prefer a star connection, with all the ground wires aside from a single point.

www.stetsom.com - export@stetsom.com

STETSOM
Unlimited Power

High Voltage Line

MIX POWER SYSTEM
S35
35000W RMS

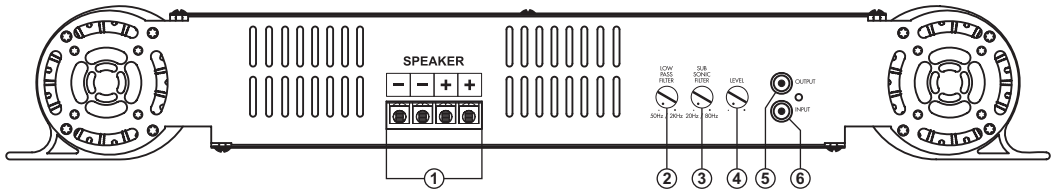
NOTICE
THIS PRODUCT THREATENING DEATH. INDICATED ONLY FOR PEOPLE SPECIALIST.

USER'S GUIDE

Nov/2011 - REV 1A

GENERAL DESCRIPTION

AUDIO INPUT, CONTROLS AND OUTPUT SOUND



1) SPEAKERS OUTPUT: This output is MONO. Beware of the polarity of the connections with the speakers and check the minimum impedance allowed in this output. The minimum battery 20 is permitted to 1 ohm and 14 batteries is 0.5 ohm. Use cables of at least 16mm ².

2) LOW PASS FILTER: This control varies frequency cut filter 50Hz to 2KHz. This filter allows passing only the sounds below the cut off frequency.

3) SUB SONIC FILTER: Provides a cut in the low frequency sound (subsonic). This filter is very useful when using speakers model woofers. In these cases, the woofers are not able to reproduce the subsonic and may even damage depending on the power and music used. Its adjustment varies from 20Hz to 80Hz.

4) LEVEL - GAIN CONTROL: Controls the level of the input signal, allowing a proper adjustment to any CD/MP3-Player of the market. For practical purposes may be adjusted as follows:

a) CD/MP3-Player, put a musical signal and adjust the volume in 80% of maximum. For example, if the maximum volume of CD/MP3-player is 45 (100%), adjusting for 36 (80%).

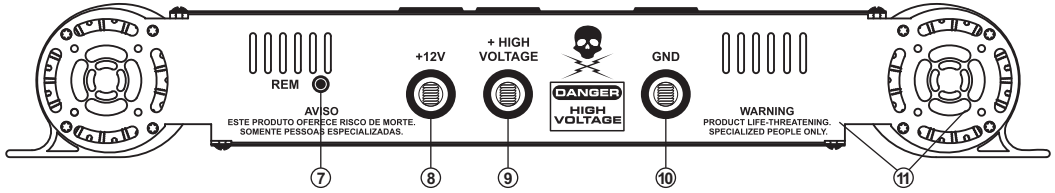
b) In the amplifier, from the LEVEL at least, increase gradually until the clipping LED flashes.

c) Return the LEVEL slowly until the LED delete completely.

5) OUTPUT – SAÍDA RCA: Esta saída poderá ser utilizada opcionalmente para tocar outro amplificador, facilitando a instalação em sistemas multi-amplificados.

6) INPUT - INPUT RCA L and R: This entry should receive the signal by RCA cable that must be connected to the output RCA of CD/MP3-Player.

AIR INPUT AND POWER



7) REM - DRIVE REMOTE: Connect the REM terminal to output for remote / antenna electric of CD/MP3-Player. So when you turn on your CD/MP3-Player, the amplifier automatically turns on. A cable of 0.5 mm² is sufficient.

8) + 12: Connect the terminal (+ 12) to the positive pole of the battery (+12 V) with a cable of at least 6.0 mm². It is extremely important that you use a fuse or circuit breaker to protect this cable to a maximum distance of 30 cm from the battery.

9) + HIGH VOLTAGE - POSITIVE POWER (PACK OF BATTERIES IN SERIES): Connect the (+ HIGH VOLTAGE) to the positive battery last block with a cable of at least 21mm ².

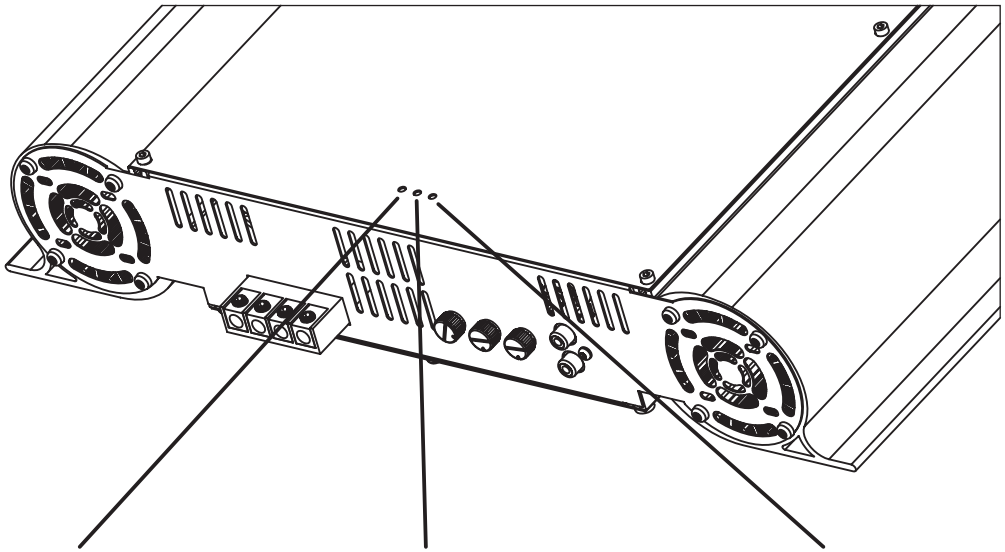
It is extremely important that you use a fuse or circuit breaker protection for each four batteries connected in series and a final fuse or circuit breaker between the battery pack and amplifier.

10) GND - GROUND CONNECTION: Use cable with 21.0 mm².Plug the cable into the chassis of the vehicle.

NOTE: Always connect the cable GND (-) of CD-Player, or other devices at the same point.

11) COOLER: Cools the internal components of the amplifier. The air enter in the cooler and exits through the exhaust ventilation.

LEDS INDICADORES



- BLUE LED (POWER) lights when the power is on.	**- RED LED (PROT) illuminates only when there is a problem in the functioning of the device.**	**- RED LED (CLIP) flashes when the amplifier output begin to distort the sound.**

SYSTEM TROUBLESHOOTING

If some problem occurs, the amplifier will shut down and the RED LED will flash alternately with the BLUE LED. As the problem occurred, the BLUE LED will blink a certain number of times. So we have a diagnosis according to the table below:

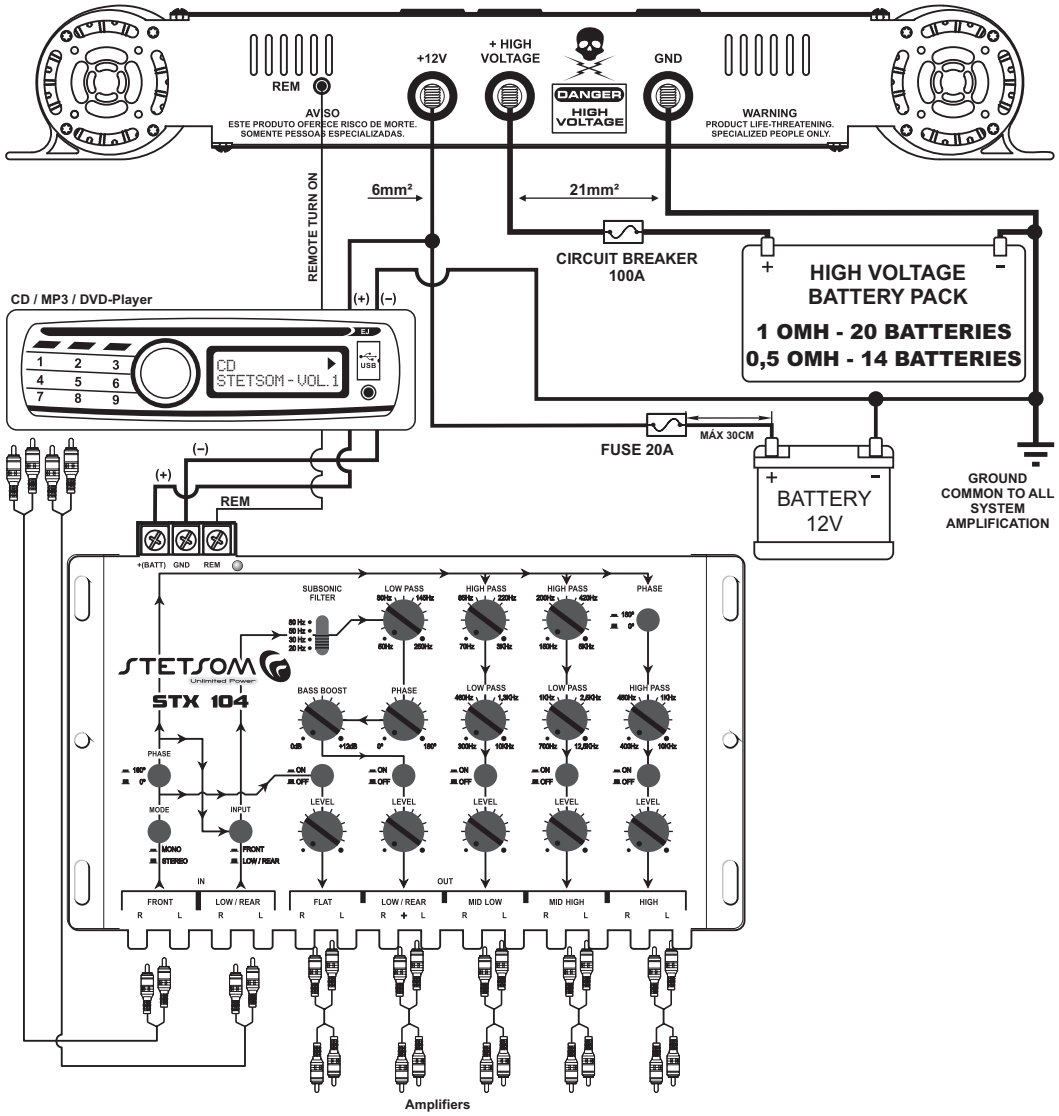
BLINKS	PROBLEM	SOLUTION
1	SHORT — **Short-circuit or overload in the output.**	**Verify if the speaker cables are properly isolated, observe the minimal impedance.**
2	HOT °C — **Excessive temperature.**	**Verify if the amplifier is in a vented spot.**
3	LOW BATT — **Discharged battery.**	**Its normal the consumption of the battery for a long period, recharge your battery.**
4	OVER BATT — **Battery voltage dangerous. Battery voltage greater the maximum allowed.**	**Find a specialized electrician to verify the system, alternator/battery.**

Note: If only the RED LED blinks (BLUE LED OFF), turn on the device with the volume of CD/MP3-player down. If the problem persists, please contact us.

BEFORE INSTALLING

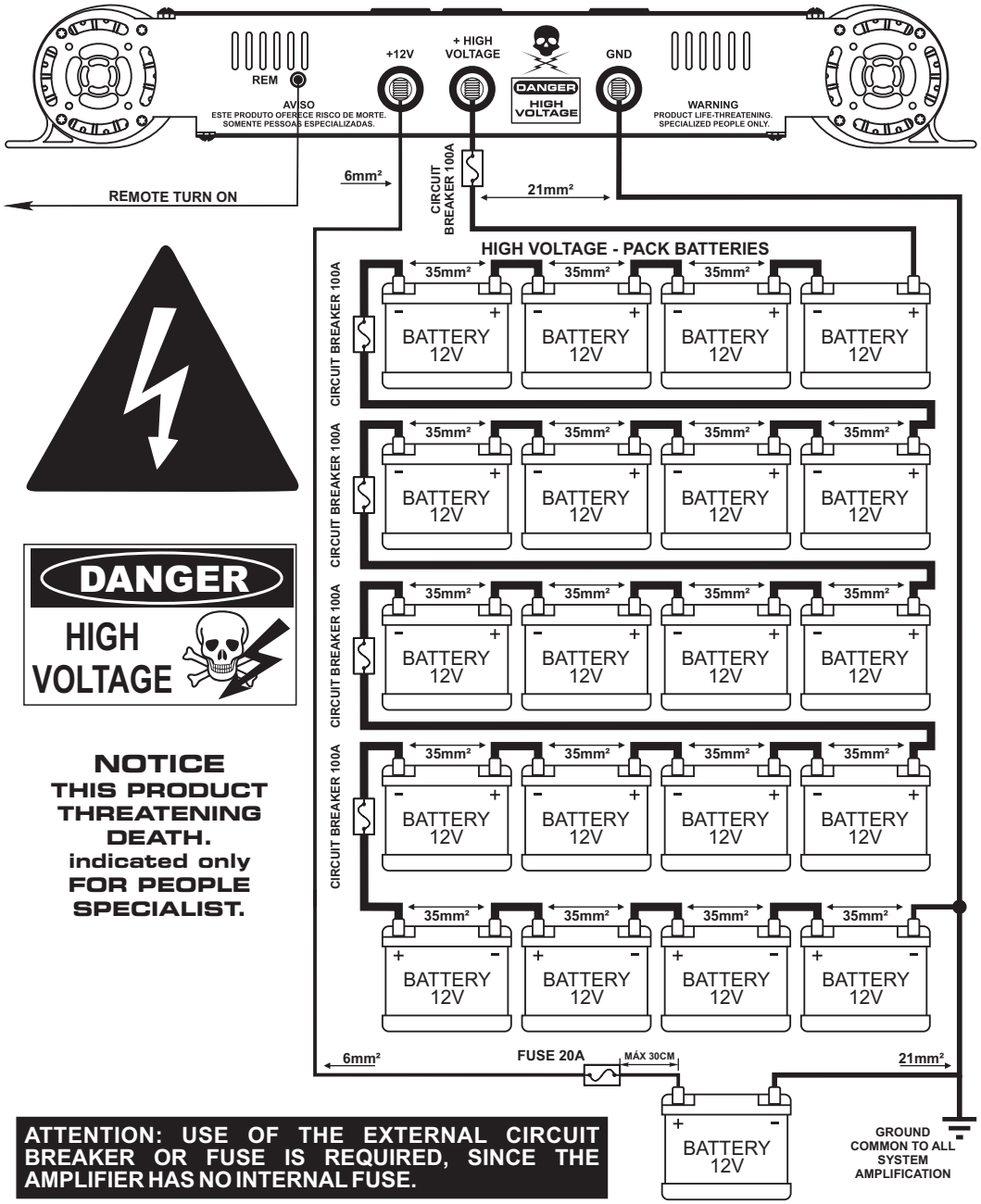
Please read this manual carefully before installing the device. The installing instructions and connections must be followed in a precise way. If necessary consult our factory.
Every connection, battery , output signal for the speakers and input signal, can be made easily by screwing terminals and RCA connectors.

1. Maintain the system cables as short as possible with correct gauge cables, this way you minimize loss of Power and obtain a hi volume system.
2. For security reasons use proper cables for Speakers and Power.
3. For not damaging the cables avoid passing them trough areas with sharpen edges and metallic borders.
4. Avoid passing all cables near the ignition, electronics injection and starter key or they may cause interference.
5. Install a fuse or circuit breaker on the positive cable of the battery at 30cm away from the post.



INSTALLATION OF POWER (BATTERY) - 250 Volts and 12Volts

For the installation of power, choice of gauge 21mm² cable for high voltage (+250 V), 35mm² connections between batteries in order to reduce losses and connections between 6mm ² for low voltage (12V). 0s positive cable should come straight from the batteries, each with its own fuse or circuit breaker protection. The negative high-voltage cable shall have the same gauge positive.



- **POWER TABLE x SPEAKER IMPEDANCE FOR S35:**

The table below show the relationship between total power and final impedance (RL) resulting from the combination of speakers connected to the audio output from amplifier S35 for a given numbers of batteries:

RL Final do Falante	POTÊNCIA EM KW SOBRE A CARGA FINAL - S 35 da STETSOM									
0,5 OHM										
0,6 OHM										
0,7 OHM	24,64									
0,8 OHM	21,56	24,75	28,16							
0,9 OHM	19,16	22,00	25,03	28,26	31,68					
1,0 OHM	17,25	19,80	22,53	25,43	28,51	31,77	35,20			
1,1 OHMS	15,68	18,00	20,48	23,12	25,92	28,88	32,00	35,28	38,72	
1,2 OHMS	14,37	16,50	18,77	21,19	23,76	26,47	29,33	32,34	35,49	38,79
1,3 OHMS	13,27	15,23	17,33	19,56	21,93	24,44	27,08	29,85	32,76	35,81
1,4 OHMS	12,32	14,14	16,09	18,17	20,37	22,69	25,14	27,72	30,42	33,25
1,5 OHMS	11,50	13,20	15,02	16,95	19,01	21,18	23,47	25,87	28,39	31,03
1,6 OHMS	10,78	12,38	14,08	15,90	17,82	19,86	22,00	24,26	26,62	29,10
1,7 OHMS	10,15	11,65	13,25	14,96	16,77	18,69	20,71	22,83	25,05	27,38
1,8 OHMS	9,58	11,00	12,52	14,13	15,84	17,65	19,56	21,56	23,66	25,86
1,9 OHMS	9,08	10,42	11,86	13,39	15,01	16,72	18,53	20,43	22,42	24,50
2,0 OHMS	8,62	9,90	11,26	12,72	14,26	15,88	17,60	19,40	21,30	23,28
Baterias a 12,6V :	14	15	16	17	18	19	20	21	22	23
Tensão Total (V) :	176,4	189,0	201,6	214,2	226,8	239,4	252,0	264,6	277,2	289,8
(Sugestão: RL= 0,5 OHM)						(Sugestão: RL= 1,0 OHM)				

RL = XL + RE

Forbidden: IRL > 190A
Área Proibida: IRL > 190A

Note: These values are referenced to a distortion of 5% THD and were obtained using a sinusoidal signal of 250 Hz. Remember that the maximum power obtained for the same amplifier playing music, will be approximately 50% of the values shown above. The hatched area is prohibited to use, since the output current line the speaker of amplifier exceeds 190A RMS, which could damage the amplifier. The region of operation suggested by Stetsom is the column of 252V total battery voltage.

- **CURRENT TABLE x SPEAKER IMPEDANCE FOR S35:**

The table below show the relationship between the total current delivered by the amplifier in your speaker line and the final impedance (RL) resulting from the association of speakers connected to the audio output of the amplifier S35 for a given numbers of batteries:

RL Final do Falante	CORRENTE (Amperes) SOBRE A CARGA FINAL - S 35 da STETSOM									
0,5 OHM										
0,6 OHM										
0,7 OHM										
0,8 OHM	164,16	175,89	187,62							
0,9 OHM	145,92	156,35	166,77	177,19	187,62					
1,0 OHM	131,33	140,71	150,09	159,47	168,86	178,24	187,62			
1,1 OHMS	119,39	127,92	136,45	144,98	153,50	162,03	170,56	179,09	187,62	
1,2 OHMS	109,44	117,26	125,08	132,90	140,71	148,53	156,35	164,16	171,98	179,80
1,3 OHMS	101,02	108,24	115,46	122,67	129,89	137,10	144,32	151,54	158,75	165,97
1,4 OHMS	93,81	100,51	107,21	113,91	120,61	127,31	134,01	140,71	147,41	154,11
1,5 OHMS	87,55	93,81	100,06	106,32	112,57	118,82	125,08	131,33	137,59	143,84
1,6 OHMS	82,08	87,95	93,81	99,67	105,53	111,40	117,26	123,12	128,99	134,85
1,7 OHMS	77,25	82,77	88,29	93,81	99,33	104,84	110,36	115,88	121,40	126,92
1,8 OHMS	72,96	78,17	83,39	88,60	93,81	99,02	104,23	109,44	114,65	119,87
1,9 OHMS	69,12	74,06	79,00	83,93	88,87	93,81	98,75	103,68	108,62	113,56
2,0 OHMS	65,67	70,36	75,05	79,74	84,43	89,12	93,81	98,50	103,19	107,88
Baterias a 12,6V :	14	15	16	17	18	19	20	21	22	23
Tensão Total (V) :	176,4	189,0	201,6	214,2	226,8	239,4	252,0	264,6	277,2	289,8
(Sugestão: RL= 0,5 OHM)						(Sugestão: RL= 1,0 OHM)				

RL = XL + RE

Forbidden: IRL > 190A
Área Proibida: IRL > 190A

RL: is the final impedance | **XL:** is the reactive impedance of speakers association
RE: is the ohmic resistance from this association

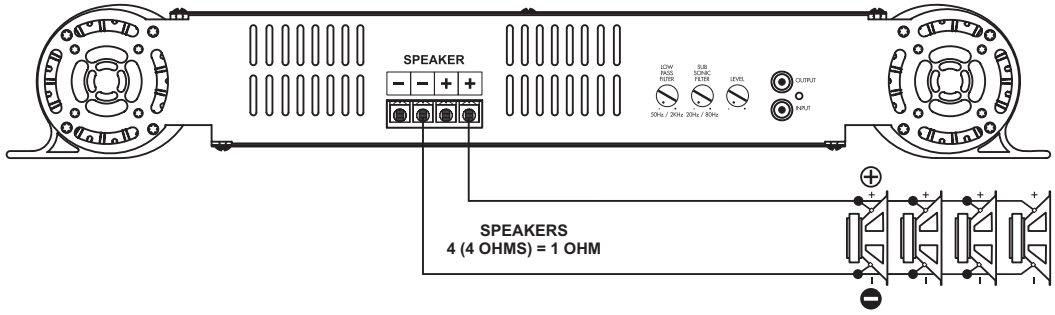
INSTALLING THE INPUT CABLES.

For the input entrance, use quality RCA cables with shield to avoid interference from the car.

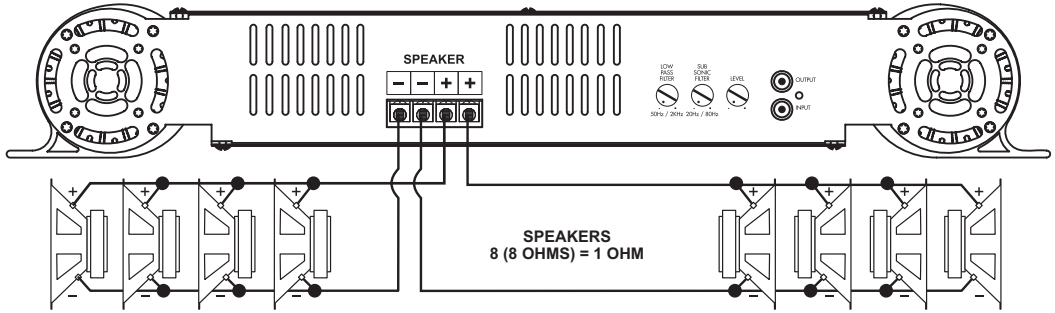
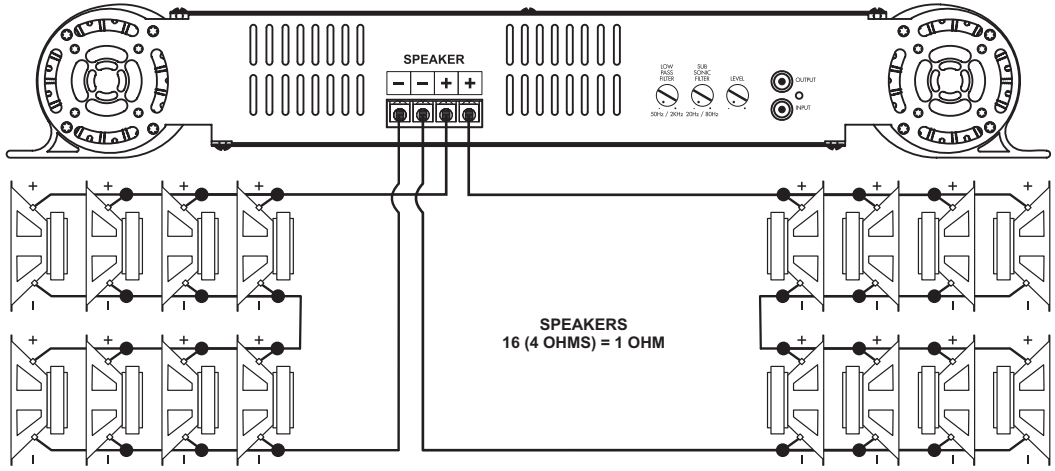
INSTALLATION OF OUTPUT SPEAKER

The cables of the speakers should be polarized (marked) to facilitate the identification of positive and negative. The circumference should be at least 16mm². Keep the cables from the speakers properly insulated. Beware of metal parts that can damage the insulation of cables.

WITH 4 SPEAKERS OF 4 OHMS



WITH 8 SPEAKER OF 8 OHMS



WITH 16 SPEAKER OF 4 OHMS