P.A. Amplifiers

OBT-7100

Reference Manual

VER 1.0

English

Read the following content before using:

1. Check the packaging and accessories before using, if the accessories are not complete,contact the distributor whom you buy the machine from.
2. Before turning on the power, you should carefully check the AC power of the region is the same with the machine, carefully check the power cord and the connection socket , make sure they are without damage.

3. This series is a power amplifier, power consumption is very big, so the power supply which provide power to the machine should have sufficient allowances (depending on the number of machines), otherwise it may cause power lines burn out, even fire, generally it should be 2-3 times of the total power

4. It is a power equipment so the machine fever is a normal situation. The built-in thermal fan ensure system cooling normally.Speed of the fan is proportional to the heat , the more heat , the faster of the fan speed , but do not put any items blocked ventilation channel of the fan and machine. If you put the machine in Cabinet or property cabinet ,there should be enough space for ventilation thermal.

5. In non-automatic systems, before opening the systems, turn on the power amplifier first, and finally open the peripherals. Before closing the system , you should turn off the power amplifier, and then close the other peripherals, so not to cause shock or damage to the broadcasting system.

6. This power amplifier is with perfect and comprehensive protection system built-in. Under un-normal conditions (such as short circuit, overload), the fuse may burn up. Please check the wiring carefully (particularly the load line) or reduce the load. If you still cannot make it right, please cut off the power , and contact your dealer or manufacturer.

7. The amplifier cannot be placed in strong sunshine, vibration, dust, damp environments, that might cause the amplifier fails, electric shocks and fires.8. When cleaning, you cannot use alcohol, gasoline, volatile solvent such as acetone, gently use a soft cloth to wipe dust, do not let water or other liquids spill into the machine, this may leave the amplifier have a serious failure, electric shock and fire.

9. In the handling process, do not thrown off the machine roughly, do not force excessive on the machine's hands, and parts of the links, this may cause damage.

Ⅰ. Detection method of the line. Laying the line, first make line terminal shorted, measure with a multimeter at the beginning. If there is an open circuit, then breaker problem is proved. If resistance is close to zero, then open the terminal, the resistance should be infinite; if the resistance is not infinite, there is short-circuit problem between the two lines . Also, measure the line and line pipe to see whether there is short-circuit and leakage phenomenon. In order to achieve the fire safety requirements, line pipe is with flame retardant cable ducts or pipes. Each connection point and branch points are located with each branch box. In order to achieve the desired sound field uniformity, distant speakers can use the transformer 0-100V , more recent speakers can use the transformer with 0-70V , it depends on the certain case.

Ⅱ. Detection method of the power amplifier

1, if the amplifier power indicator does not light, check whether the fuse is blown, if the fuse is good, then the amplifier is broken; if the fuse is damaged, replace the fuse. After replacing the fuse, the fuse has burned out again, indicating that the internal circuit of the amplifier is shorted, repair the amplifier. If there is a current sound of the amplifier,unpluging the audio cable, if the current sound disappeares, indicating that the audio cable is bad or is disturbed, replace the audio cable or eliminate the source of interference, or adjust the treble knob and bass knob to less than 5db to eliminate the affect of the interference.

2, the amplifier protection light (PROT) lights. It shows that amp has the phonomenons of overload, overheat, short circuit, automatic protection, buzzer sounds. Troubleshooting methods: turn off the power supply and disconnect all the connected speakers , then turn on the power supply and turn the volume knob to 0 . Observe the protection light, if the protection light continues to be bright , then the amplifier may be damaged and need to be repaired ; if the protection does not light, you can determine the amplifier is normal, the fault occurs in the load or line.

Ⅲ. Failure determination of the single speaker

Adjust the volume knob of all the amplifier to the smallest volume (2db), turn the amplifier on, check carefully whether each speaker has sound, if no , you can determine the speaker is damaged, replace the speakers which have no sound.

Ⅳ. Failure determination of a set of speakers

1, first raise the multimeter to ohm, range selection is 100-1KOHM.

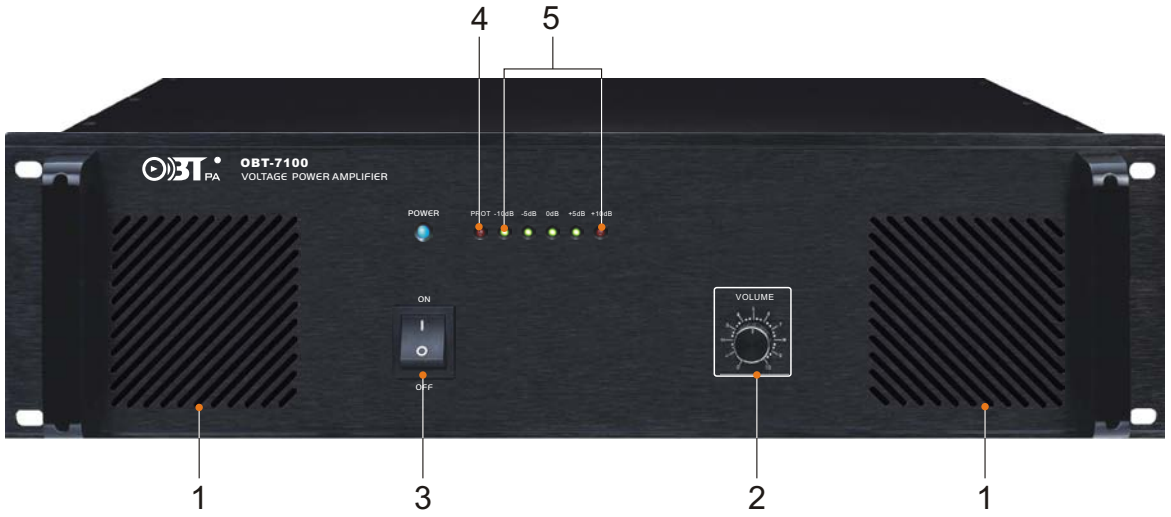
2, if the speakers are less than 10, measure the two sides of the line with Multimeter, measure the resistance , if it is more than 3 ohms , that is normal. Instead, remove each speaker to measure the resistance value , if the value is more than 10 ohms , that is normal, if all the speakers are normal, then this line has a fault , then maintain the line.

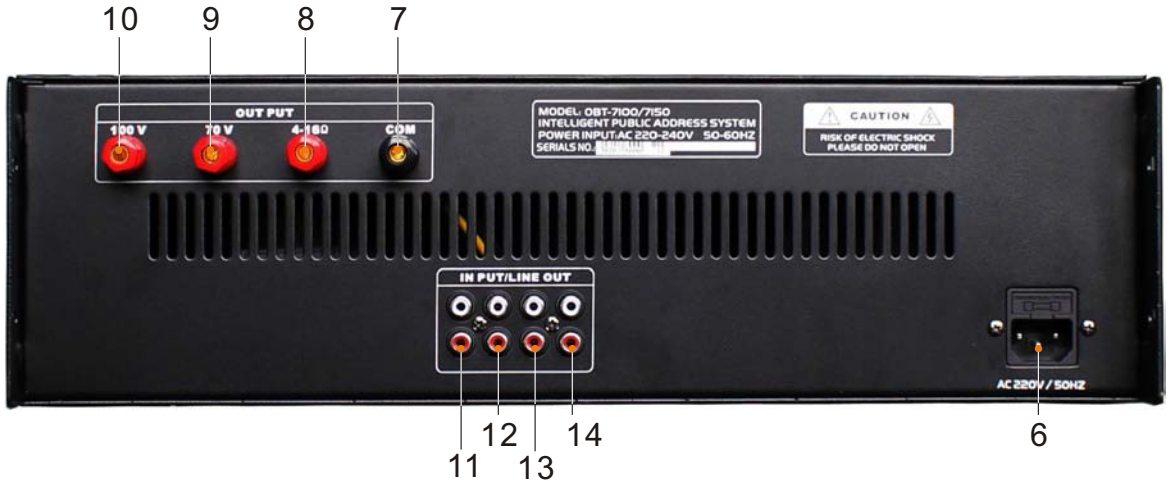
3, if the speakers are more than 10, divide the speakers into a group of 10 , do the same as tip 2, . If still didn't find the cause, then the speakers may be broken.

Table for Pa Wire Cross Section And The Distance

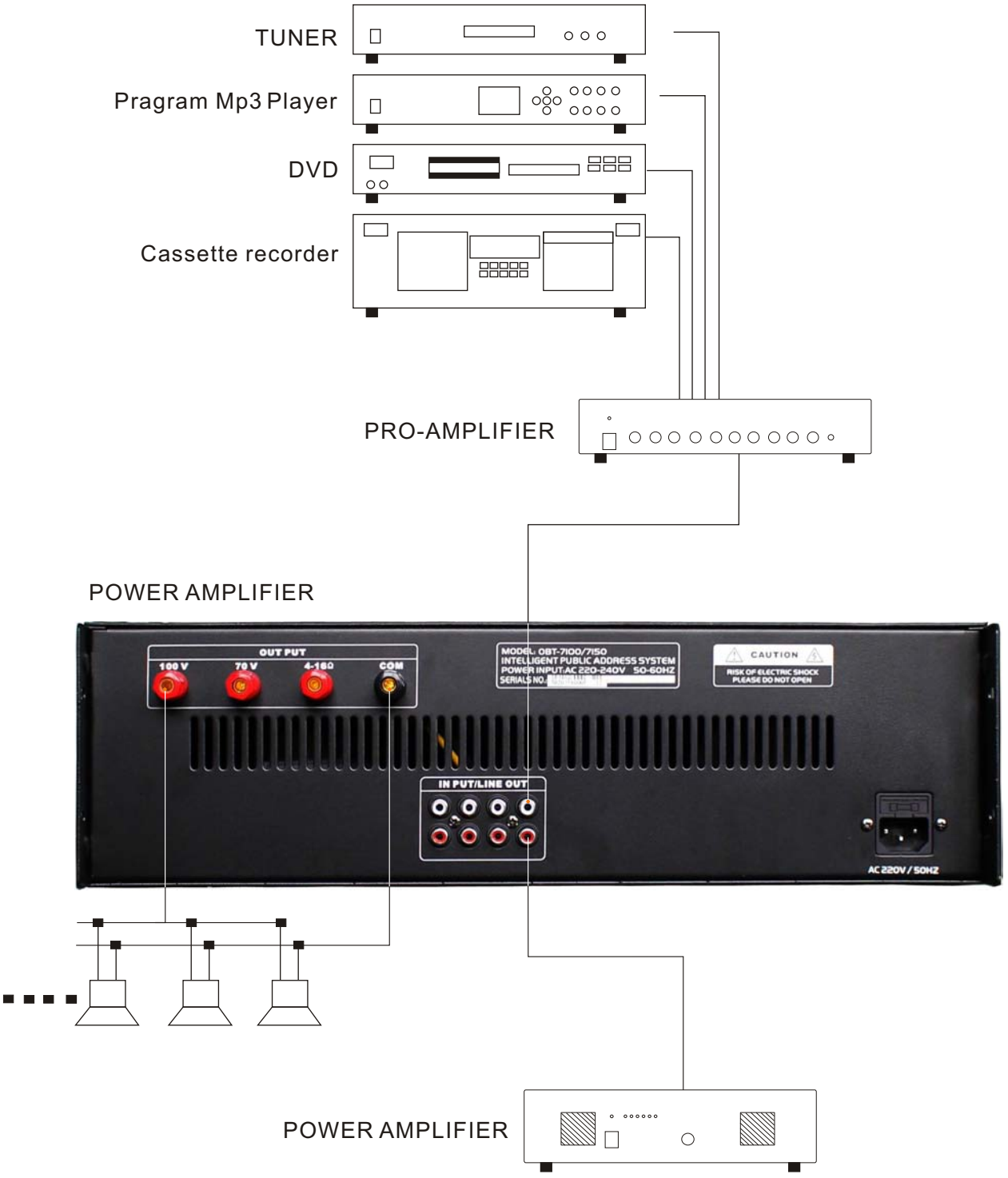
Rated power	60W	90W	150W	250W	350W	650W	1000W	2000W
Cross Section / Length	mm^2	mm^2	mm^2	mm^2	mm^2	mm^2	mm^2	mm^2
0-70V								
Within 100 meters	0.50	0.50	0.50	0.75	1.00	1.50	2.00	4.00
Within 250 meters	0.50	0.75	1.50	2.50	3.00	4.00	4.00	
Within 500 meters	0.75	1.50	2.50	3.00	4.00	4.00		
Within 1000 meters	1.50	2.50	4.00	4.00				
0-100V								
Within 100 meters	0.50	0.50	0.50	0.50	0.75	0.75	1.50	2.50
Within 250 meters	0.50	0.50	0.75	1.00	1.50	2.50	3.00	4.00
Within 500 meters	0.50	0.75	1.50	2.50	3.00	3.00	4.00	6.00
Within 1000 meters	0.75	1.50	3.00	3.50	4.00	4.00	6.00	6.50

- Standard rackmount design(3U),brushed black aluminum panel,humanized handle,take use of advanced polishing technology,filling the high-end temperament.
- Panel with volume control knob.
- Short circuit,overheat,overload protection function automatically detected,the indicator warning buzzer alarm.
- Output 100V,70V,4-16Ω,connect 1 signals.
- Output Power:1000W,1500W,2000W optional.





❶ Power On/Off Switch
❷ Input Volume Level
❸ Power On/Off
❹ Protection Indicator
❺ Output level Signal Indicator
❻ AC Power Input
❼ GNG/COM Interface
❽ 4-16Ω Output Interface
❾ Power 70V Output Interface
❿ Power 100V Output Interface
⓫ Signal Input/Output
⓬ Signal Input/Output
⓭ Signal Input/Output
⓮ Signal Input/Output


TUNER
Pragram Mp3 Player
DVD
Cassette recorder
PRO-AMPLIFIER
POWER AMPLIFIER
OUT PUT
100 V
70 V
4-16Ω
COM
MODEL: OBT-7100/7150
INTELLIGENT PUBLIC ADDRESS SYSTEM
POWER INPUT:AC 220-240V 50-60HZ
CAUTION
RISK OF ELECTRIC SHOCK
PLEASE DO NOT OPEN
IN PUT/LINE OUT
AC 220V / 50HZ
POWER AMPLIFIER


OUT PUT
100 V
70 V
4-16Ω
COM
MODEL: OBT-7100/7150
INTELLIGENT PUBLIC ADDRESS SYSTEM
POWER INPUT:AC 220-240V 50-60HZ
SERIALS NO.
CAUTION
RISK OF ELECTRIC SHOCK
PLEASE DO NOT OPEN
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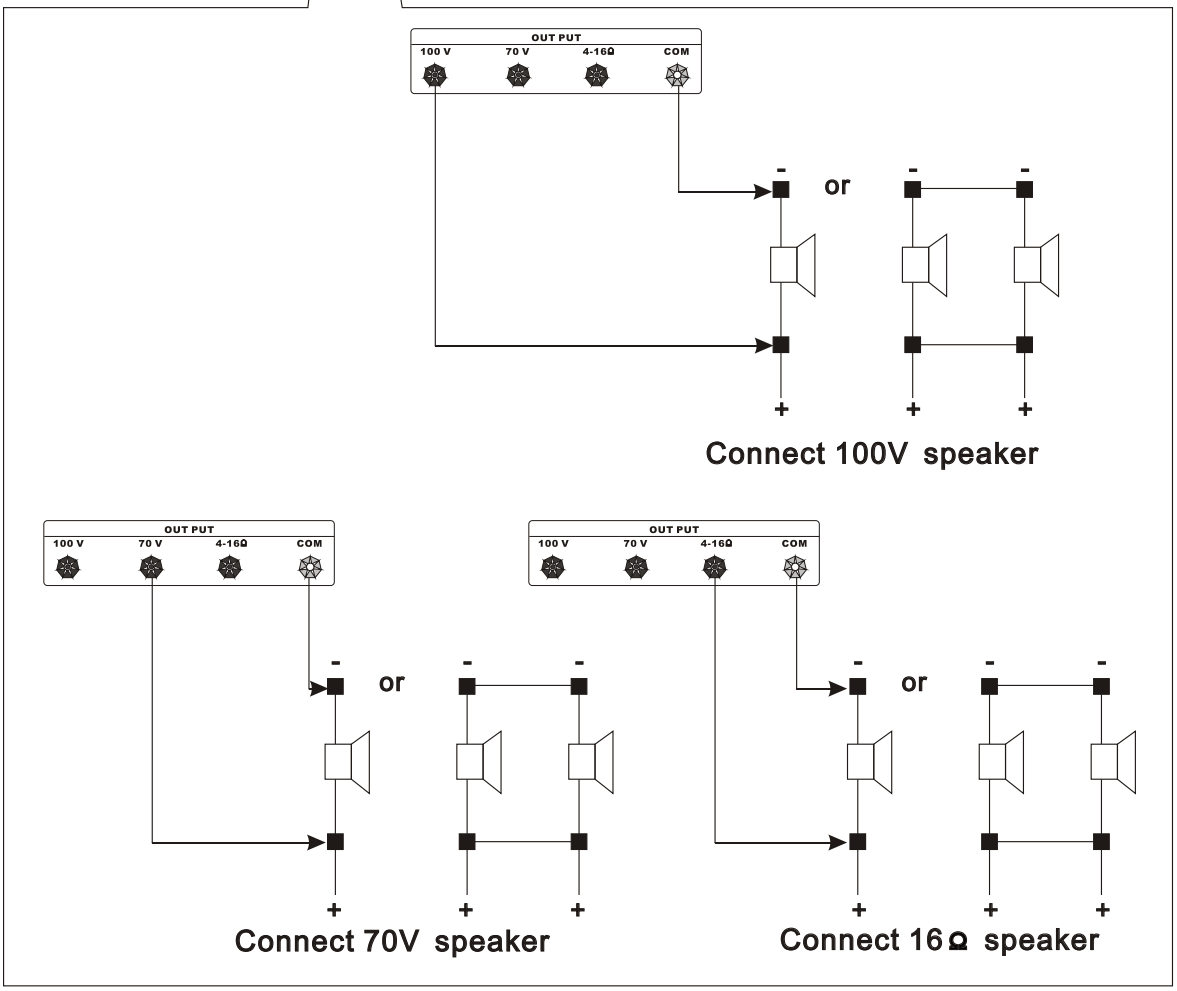
AC 220V / 50HZ


OUT PUT
100 V
70 V
4-16Ω
COM
or
Connect 100V speaker
Connect 70V speaker
Connect 16Ω speaker

	OBT-7100	OBT-7150	OBT-7200
Input resistance	10Kohm		
Input voltage	1V		
Output resistance	4-8Ω （resistance） 4-16Ω （voltage）		
Output voltage	70-100V		
Output Power	1000W	1500W	2000W
Frequency response	40-20KHZ±3dB		
S/N Ratio	>96dB		
Nonlinear distortion	<0.5% 1KHz		
Power supply	AC220V 50-60Hz		
	DC24V □		