

AV-1700 DIGITAL AMPLIFIER

OWNERS MANUAL




www.visionaudiovisual.com/techaudio/av-1700

DECLARATION OF CONFORMITY


Where applicable Vision products are certified and comply with all known local regulations to a 'CB Certification' standard. Vision commits to ensure all products are fully compliant with all applicable certification standards for sale in the EU and other participating countries.

The product described in this owner manual is in compliance with RoHS (EU directive 2002/95/EC), and WEEE (EU directive 2002/96/EC) standards. This product should be returned to the place of purchase at the end of its useful life for recycling.


WARNINGS




CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.




The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

All products are designed and imported into the EU by 'Vision' who is wholly owned by 'Azlan Logistics Ltd.', Registered in England Nr. 04625566 at Lion House, 4 Pioneer Business Park, Clifton Moor, York, YO30 4GH. WEEE Registration: GD0046SY



DECLARATION OF ORIGIN

All Vision products are made in the People's Republic of China (PRC).

2

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USE ONLY DOMESTIC AC OUTLETS

Connecting the unit to an outlet supplying a higher voltage may create a fire hazard.

HANDLE THE POWER CORD WITH CARE

Do not disconnect the plug from the AC outlet by pulling the cord; always pull the plug itself. Pulling the cord may damage it. If you do not intend to use your unit for any considerable length of time, unplug the unit. Do not place furniture or other heavy objects on the cord, and try to avoid dropping heavy objects on it. Do not tie a knot in the power cord. Not only could the cord be damaged, but a short circuit could also be caused with a consequent fire hazard.

PLACE OF INSTALLATION

Avoid installing this product under the following conditions:

- Moist or humid places
- Places exposed to direct sunlight or close to heating equipment
- Extremely cold locations
- Places subject to excessive vibration or dust
- Poorly ventilated places

Do not expose this product to dripping or splashing. **DO NOT PLACE OBJECTS FILLED WITH LIQUIDS ON OR NEAR THIS PRODUCT!**

MOVING THE UNIT

Before moving the unit, be sure to pull out the power cord from the AC outlet and disconnect the interconnection cords with other units.

WARNING SIGNS

If you detect an abnormal smell or smoke, turn this product off immediately and unplug the power cord. Contact your reseller or Vision.

PACKAGING

Save all packing material. It is essential for shipping in the event the unit ever needs repair.

IF ORIGINAL PACKAGING IS NOT USED TO RETURN THE UNIT TO THE SERVICE CENTRE, DAMAGE IN TRANSIT WILL NOT BE COVERED BY WARRANTY.

WATTS

The most consistent standards for measuring watts are "Program Power" and "RMS" because these measure average sustained levels.

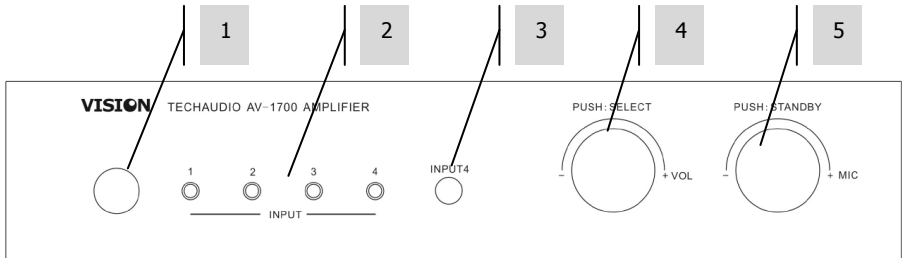
Amplifier power output changes depending on how many loudspeakers are connected. Professional manufacturers typically quote output based on 8 ohms. Less reputable manufacturers quote at 4 ohms to make their product seem more powerful.

This amplifier has an output of:

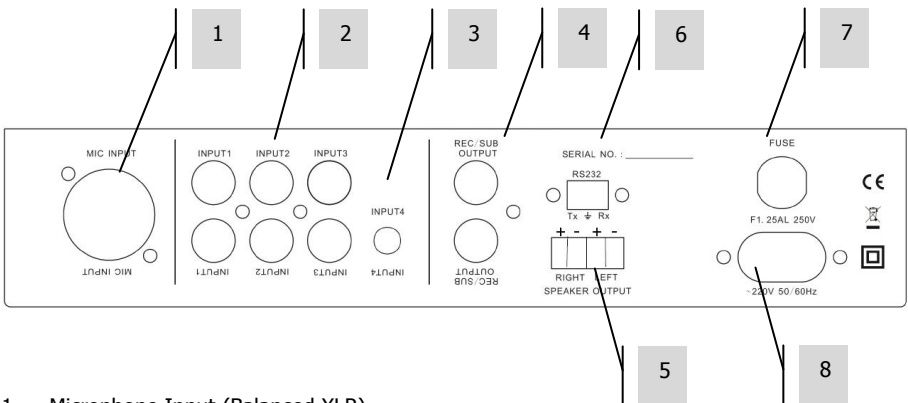
2 x 30w (sometimes referred to as 60w) @ 8 ohms (two loudspeakers connected)

2 x 60w (sometimes referred to as 120w) @ 4 ohms (four loudspeakers connected)

FRONT AND REAR PANELS

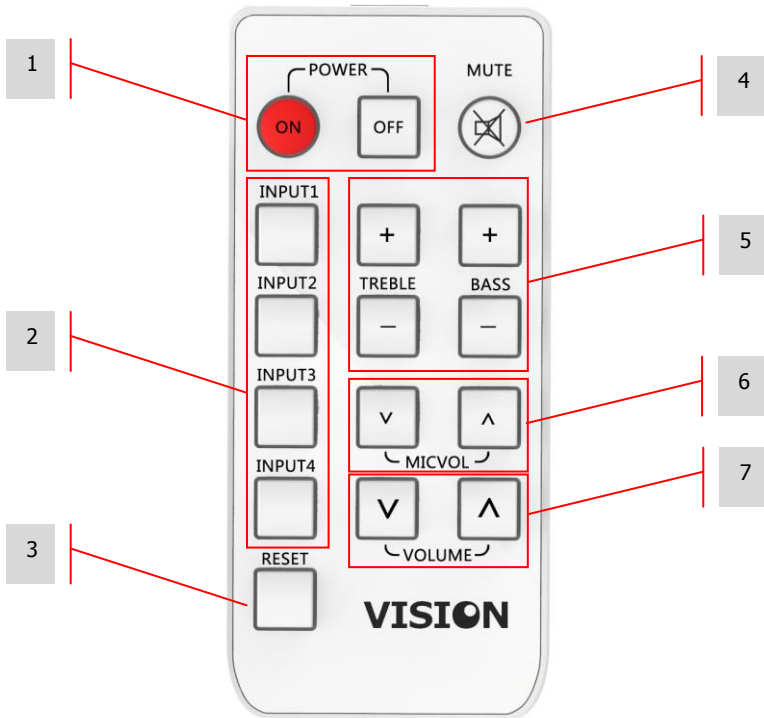


1. IR Receiver
2. Active Input LED
3. Line-level Input 4 (3.5mm Minijack - duplicated on rear panel)
4. Line-level Input Volume [Push: Input Select]
5. Microphone Input Gain [Push: On/Off]



1. Microphone Input (Balanced XLR)
2. Line-level Inputs 1-3 (2-Phono)
3. Line-level Input 4 (3.5mm Minijack -duplicated on front panel)
4. Line-Level Output (2-Phono)
5. Loudspeaker Outputs
6. RS-232 Control Input
7. Fuse
8. Figure-8 (C8) Power Input

REMOTE CONTROL



1. Power On and Off
2. Input Selection
3. Tone Reset
4. Mute
5. Tone Control
6. Microphone Input Gain
7. Line-level Input Volume

INSTALLATION

1. **CONNECT INPUTS AND OUTPUTS** Up to two pairs of loudspeakers can be connected. If speaker cable provided is not long enough use unshielded speaker cable with gauge of 0.75mm or higher.

NOTE 1: The warranty will be void if you use shielded cable

NOTE 2: This is a low-impedance digital amplifier. Do not connect '100v line' speakers (normally any speakers with "t" in their part code)

2. **CONNECT POWER** The amplifier will turn on when power is plugged in the first time.
3. **TURN POWER ON** Then select input and adjust volume as required.

Should it become overloaded it will shut down to protect itself. Return operating conditions to safe levels and restart amplifier.

MICROPHONE INPUT

1. The microphone input provides "Phantom Power" (24v) for condenser microphones such as lectern or boundary (PZM) microphones.

NOTE: Ensure the microphone volume is turned down when connecting microphones.

2. The microphone volume can be adjusted independently of the line-level inputs.
3. Keep microphone away from loudspeakers to avoid feedback.

RS-232 CODES

Table 1: Control Codes

HEX Codes	On Remote	Function
A5 11 11	ON	Bring out of standby
A5 15 15	OFF	Put into standby
A5 05 05	MUTE	Mute on/off (Standby activates after 30 minutes of mute)
A5 01 01	INPUT1	Input select 1
A5 09 09	INPUT2	Input select 2
A5 10 10	INPUT3	Input select 3
A5 02 02	INPUT4	Input select 4
A5 08 08	TREBLE+	Increase treble gain by +1dB
A5 0D 0D	TREBLE-	Decrease treble gain by -1dB
A5 0C 0C	BASS+	Increase bass gain by +1dB
A5 12 12	BASS-	Decrease bass gain by -1Db
A5 00 00	RESET	Reset tone
A5 07 07	MIC+	Mic volume + (also cancels mute if active)
A5 0B 0B	MIC-	Mic volume - (also cancels mute if active)
A5 06 06	VOL+	Volume + (also cancels mute if active)
A5 04 04	VOL-	Volume - (also cancels mute if active)

Table 2: Direct Master Volume Codes

HEX Codes	Function	Remark
A5 30 30	Set volume to 28	VOLUME MAX
A5 31 31	Set volume to 27	
A5 32 32	Set volume to 26	
A5 33 33	Set volume to 25	
A5 34 34	Set volume to 24	
A5 35 35	Set volume to 23	
A5 36 36	Set volume to 22	
A5 37 37	Set volume to 21	
A5 38 38	Set volume to 20	
A5 39 39	Set volume to 19	
A5 3A 3A	Set volume to 18	
A5 3B 3B	Set volume to 17	
A5 3C 3C	Set volume to 16	
A5 3D 3D	Set volume to 15	
A5 3E 3E	Set volume to 14	
A5 3F 3F	Set volume to 13	
A5 40 40	Set volume to 12	
A5 41 41	Set volume to 11	
A5 42 42	Set volume to 10	
A5 43 43	Set volume to 9	
A5 44 44	Set volume to 8	

A5 45 45	Set volume to 7	
A5 46 46	Set volume to 6	
A5 47 47	Set volume to 5	
A5 48 48	Set volume to 4	
A5 49 49	Set volume to 3	
A5 4A 4A	Set volume to 2	
A5 4B 4B	Set volume to 1	
A5 4C 4C	Set volume to 0	VOLUME MIN
HEX Codes	Function	Remark
A5 50 50	Set volume To 0	VOLUME MIN
A5 51 51	Set volume to 1	
A5 52 52	Set volume to 2	
A5 53 53	Set volume To 3	
A5 54 54	Set volume To 4	
A5 55 55	Set volume To 5	
A5 56 56	Set volume To 6	
A5 57 57	Set volume To 7	
A5 58 58	Set volume To 8	
A5 59 59	Set volume To 9	
A5 5A 5A	Set volume To 10	
A5 5B 5B	Set volume To 11	
A5 5C 5C	Set volume To 12	

Table 3: Direct Master
Volume Codes

A5 5D 5D	Set volume To 13	
A5 5E 5E	Set volume To 14	
A5 5F 5F	Set volume To 15	
A5 60 60	Set volume To 16	
A5 61 61	Set volume To 17	
A5 62 62	Set volume To 18	
A5 63 63	Set volume To 19	
A5 64 64	Set volume To 20	
A5 65 65	Set volume To 21	
A5 66 66	Set volume To 22	
A5 67 67	Set volume To 23	
A5 68 68	Set volume To 24	
A5 69 69	Set volume To 25	
A5 6A 6A	Set volume To 26	
A5 6B 6B	Set volume To 27	
A5 6C 6C	Set volume To 28	VOLUME MAX

Table 4: Return Codes

Hex Codes	Function	Range		Remark		
				working	off	standby
MUTE	Mute status	0	1	0	1	1
BD3490FV_SELECT	Input select	0	3	0= input 1, 1=input2, 2=input3, 3= input4		
BD3490FV_GAIN_GET	Get master volume	1	28(1C)	1~28, volume has 28 steps		
BD3490FV_B_GAIN_GET	Get bass gain	1	15(0F)	Bass gain has 15 steps		
BD3490FV_T_GAIN_GET	Get treble gain	1	15(0F)	Treble gain has 15 steps		
PT2259_GAIN_GET	Get mic gain	1	28(1C)	Mic gain has 28 steps		

Baud rate: 2400K

Stop Bit: 1

Delivery interval >80ms

No check digit

Send 0xA5 (hex code) as verification code

When a command is sent twice the amplifier returns the value of table 2

NOTE: Auto-Standby activates after 30 minutes of mute or no operation. Any adjustment turns standby off.

TROUBLESHOOTING

If your system is not operating properly, please refer to the following information. If the problem persists, disconnect from power and contact your AV reseller immediately.

Problem	Correction
No Sound	<ul style="list-style-type: none">• Turn off and check connections.• Check output level from sources. For example, laptop volume.
Microphone quiet	<ul style="list-style-type: none">• Some microphones have a gain switch. Consult the manual.
No Power light	<ul style="list-style-type: none">• Check power connections• Abnormal load. Turn power off, disconnect some speakers and test again
Distortion	<ul style="list-style-type: none">• Input gain too high• Volume too high• Loudspeakers may be worn or damaged
Feedback	<ul style="list-style-type: none">• Turn microphone down, or move away from speakers
Sound only coming out one side	<ul style="list-style-type: none">• Turn off and switch output connections. If the side changes the amplifier is okay – the fault is with the speakers.• Switch input connections and check input cabling.

SPECIFICATIONS

AMPLIFIER DIMENSIONS: 220 x 154 x 44mm (wide x deep x tall) not including dials and connectors

AMPLIFIER WEIGHT: 1.2kg

COLOUR: White

INPUTS

4 x Stereo inputs (via 3 x phono connectors / 1 x 3.5mm minijack)

1 x Microphone inputs via balanced XLR

OUTPUTS

1 x Stereo Line-level output via phono connectors

TECHNICAL DETAILS

2 x 30w @ 8 ohms

Total Harmonic Distortion <2%

Frequency response (line in): 50Hz~18kHz

Signal to noise ratio (line in): 75dB

Rating input level/Impedance:

line in 440~500mV/47kohms

Power consumption (rating condition): <=125W

POWER SUPPLY: 100~240V Internal Power Supply

COMPLIANCES: RoHS, WEEE & CE compliant

ACCESSORIES INCLUDED

1 x 2-phono to 2-phono cable 2m long

1 x 3.5mm to 3.5mm minijack cable 2m long

2 x Unshielded Speaker Cable 5m long

1 x UK C7 figure-8 power cable 1.8 m long

1 x EU C7 figure-8 power cable 1.8 m long

1 x AU C7 figure-8 power cable 1.8 m long

1 x US C7 figure-8 power cable 1.8 m long

1 x Remote Control (Battery included: CR2025 3V Li-Mn)

LIFETIME RETURN-TO-BASE WARRANTY

This product comes with a lifetime return to base warranty. If you have a problem you are required to provide a DETAILED DESCRIPTION of the fault.

Some Vision products are very technical and require troubleshooting all elements of the installation as it may not be the Vision product at fault. Because of this the manufacturer may refuse to replace the item if an adequate description is not provided.

- This warranty applies only to the original purchaser and is not transferable.
- This warranty protects you against the following:
 - Failure of any components, including the power supply.
 - Damage when the product is first removed from its packaging if reported within 24 hours of purchase.
- If the product is DOA (dead on arrival), you have 21 days from purchase date to notify the national distributor via your AV reseller.
- The original purchaser is responsible for shipment of the product to the Vision's appointed service centre.
- The liability of Vision is limited to the cost of replacement of the faulty unit under warranty except for death or injury (EU85/374/EEC).
- If the product is end of line (EOL) the Vision will provide a credit instead of replacement.
- This warranty does not protect this product against faults caused by abuse, misuse, incorrect installation, unstable or faulty power input, or modification.

Vision aims to send a replacement item within 5 working days however this may not always be possible, in which case it will be sent as soon as practicably possible. UK End users and resellers can request support at <http://www.visionaudiovisual.com/support>

2-YEAR ONSITE WARRANTY (UK ONLY)

The manufacturer provides an onsite warranty for the first two years taken from date of sale.

This service can be requested at the url above and is provided at the manufacturer's discretion.

- This service is only provided for products which are difficult for an end user to get at and replace.
- The manufacturer will not provide the onsite service if
 - The reseller or end user has been abusive
 - The user has is taking unfair advantage of this service
- The manufacturer will pre-qualify the visit to ensure the fault relates to the Vision product.

The engineer visits are timed to ensure you are onsite and the room is accessible. A revisit WILL NOT be provided if access to the room is not provided at the arranged time. Engineers will wait 15 minutes only.

LEGAL DISCLAIMER: Because we are committed to improving our products, the details above may change without prior warning. This User Manual is published without warranty and any improvements or changes to the User Manual necessitated by typographical errors, inaccuracies of current information, or improvements to programs and/or equipment, may be made at any time and without notice. Such changes will be incorporated into new editions of the User Manual.