

# AV-1800 DIGITAL AMPLIFIER

## OWNERS MANUAL




[www.visionaudiovisual.com/techaudio/av-1800](http://www.visionaudiovisual.com/techaudio/av-1800)

## 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).

## **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.

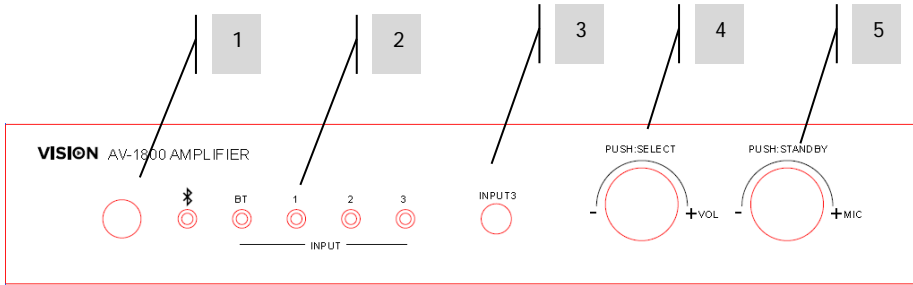
Amplifier power output changes depending on how many loudspeakers are connected. Professional manufacturers typically quote output based on 8 ohms. Less reputable manufacturers quote at 4 ohms to make their product seem more powerful.

This amplifier has an output of:

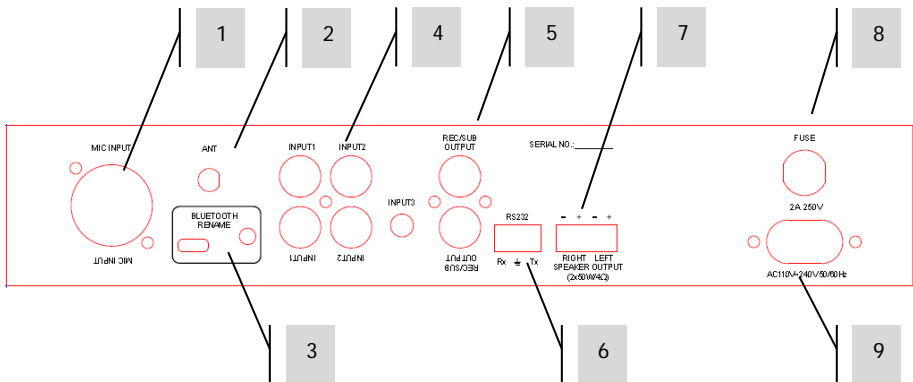
2 x 50w (sometimes referred to as 100w) @ 8 ohms (two loudspeakers connected)

2 x 100w (sometimes referred to as 200w) @ 4 ohms (four loudspeakers connected)

## FRONT AND REAR PANELS

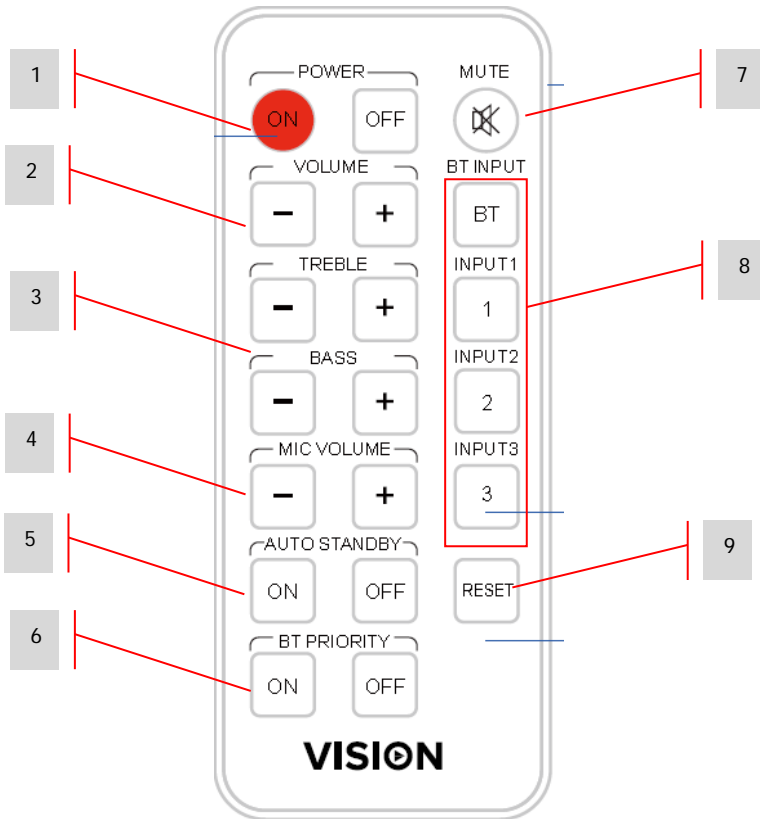


1. IR Receiver
2. Active Input LED
3. Line-level Input 3 (3.5mm Minijack - duplicated on rear panel)
4. Line-level Input Volume [Push: Input Select]
5. Microphone Input Gain [Push: On/Off]



1. Microphone Input (Balanced XLR)
2. Bluetooth Antenna
3. Micro USB and Bluetooth programming mode button
4. Line-level Inputs 1-3
5. Line-Level Output
6. RS-232 Control Input
7. Loudspeaker Outputs
8. Fuse
9. Figure-8 (C8) Power Input

## REMOTE CONTROL



1. Power On and Off
2. Line-level Input Volume
3. Tone Control
4. Microphone Input Gain
5. Auto Standby Disable
6. Bluetooth Auto Switch
7. Mute
8. Input Selection
9. Tone Reset

## 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.

When input signal drops below a threshold for an extended period the amp will put itself into standby. When it senses signal it will turn itself back on.

## MICROPHONE INPUT

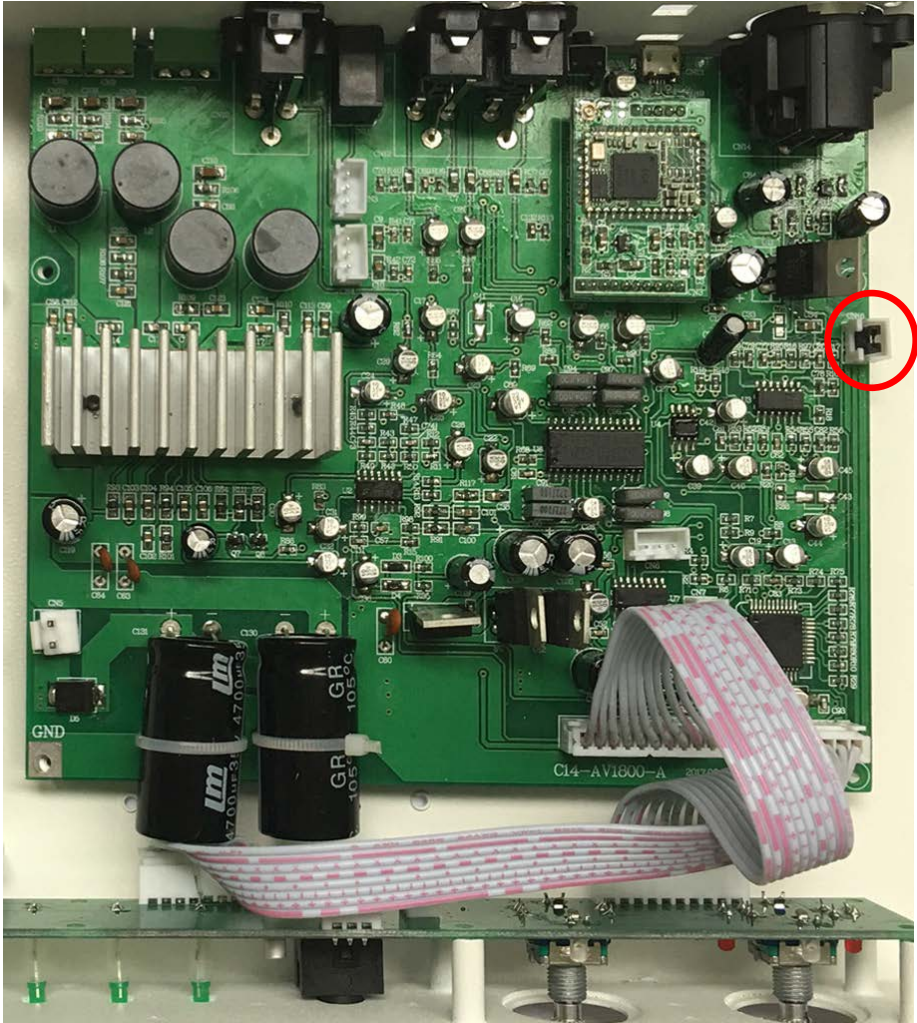
1. The microphone input provides "Phantom Power" (24v) for condenser microphones such as lectern or boundary (PZM) microphones.

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.

## DISABLE PHANTOM POWER

Buzzes or hums may be caused by Phantom Power. Disable by REMOVING jumper shown:



## BLUETOOTH INPUT

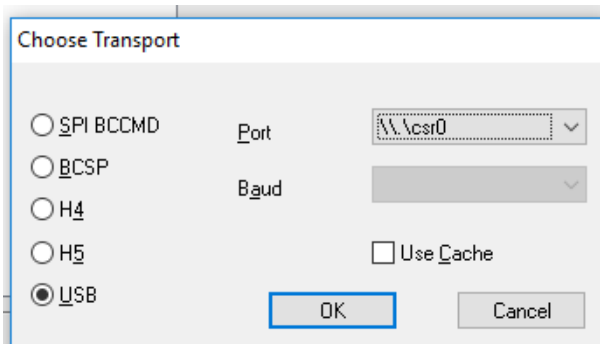
DEFAULT PIN: 1111

When amp is turned on or when Bluetooth selected, the Bluetooth radio will be in pairing mode for 10 minutes. The Blue LED will flash while in pairing mode, then stay on when paired.

If “Bluetooth Priority” is on the amplifier will automatically switch to the Bluetooth source when a device is paired.

## CHANGE BLUETOOTH DEVICE NAME AND PIN

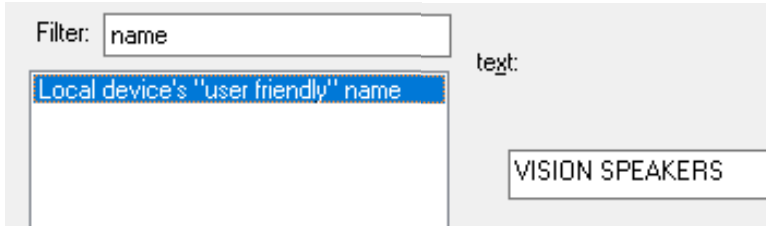
1. DOWNLOAD AND INSTALL BLUESUITE SOFTWARE (WINDOWS ONLY) FROM <https://visionaudiovisual.com/techaudio/av-1800/>
2. PAIR PHONE TO AMPLIFIER
3. PRESS BUTTON ON REAR OF AMP Release when Blue LED on front turns off
4. CONNECT PC TO AMP WITH USB CABLE (NOT INCLUDED)
5. RUN PStool APPLICATION. Select **USB\csr0** port as below



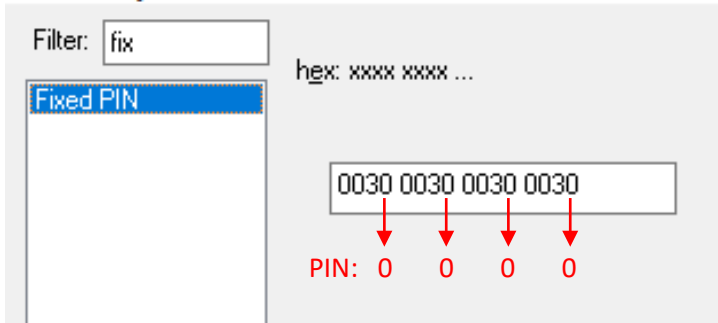
NOTE: if port is not showing load drivers manually from  
*C:\Program Files (x86)\CSR\BlueSuite 2.6.4\drivers*



6. TYPE "NAME" IN FILTER Adjust then select **Set**



7. TYPE "FIX" IN FILTER The current PIN in this example is shown below:



Adjust PIN (last digit of each group), then press **Set** and **Reset BC**.

## RS-232 CODES

Baud rate: 9600K

Stop Bit: 1

Delivery interval >80ms

No check digit

Table 1: Command Codes

HEX Code	On Remote	Function
97 45 45	ON	Turn on/ bring out of standby
97 46 46	OFF	Turn off
97 47 47	MUTE	Mute on/off
97 43 43	BT INPUT	Input select BT
97 09 09	INPUT1	Input select 1
97 0D 0D	INPUT2	Input select 2
97 5E 5E	INPUT3	Input select 3
97 15 15	TREBLE+	Increase treble gain by +1DB
97 07 07	TREBLE-	Decrease treble gain by -1DB
97 19 19	BASS+	Increase bass gain by +1DB
97 16 16	BASS-	Decrease bass gain by-1DB
97 5A 5A	RESET	Reset tone
97 18 18	MIC+	MIC volume + / out of mute
97 0C 0C	MIC-	MIC volume -/ out of mute
97 40 40	VOL+	Volume +/- out of mute
97 44 44	VOL-	Volume -/out of mute
97 42 42	BTPRIORITY ON	BT PRIORITY ON
97 52 52	BTPRIORITY OFF	BT PRIORITY OFF
97 08 08	AUTOSTANDBY ON	AUTO STANDBY ON
97 1C 1C	AUTOSTANDBY OFF	AUTO STANDBY OFF

Table 2: Direct Address Volume Codes

<b>HEX Code</b>	<b>Function</b>
97 A0 A0	Set master volume to 0 (MIN)
97 A1 A1	Set master volume to 1
97 A2 A2	Set master volume to 2
97 A3 A3	Set master volume to 3
97 A4 A4	Set master volume to 4
97 A5 A5	Set master volume to 5
97 A6 A6	Set master volume to 6
97 A7 A7	Set master volume to 7
97 A8 A8	Set master volume to 8
97 A9 A9	Set master volume to 9
97 AA AA	Set master volume to 10
97 AB AB	Set master volume to 11
97 AC AC	Set master volume to 12
97 AD AD	Set master volume to 13
97 AE AE	Set master volume to 14
97 AF AF	Set master volume to 15
97 B0 B0	Set master volume to 16
97 B1 B1	Set master volume to 17
97 B2 B2	Set master volume to 18
97 B3 B3	Set master volume to 19
97 B4 B4	Set master volume to 20 (MAX)

<b>HEX Code</b>	<b>Function</b>
97 D0 D0	Set mic volume to 0 (MIN)
97 D1 D1	Set mic volume to 1
97 D2 D2	Set mic volume to 2
97 D3 D3	Set mic volume to 3
97 D4 D4	Set mic volume to 4
97 D5 D5	Set mic volume to 5
97 D6 D6	Set mic volume to 6
97 D7 D7	Set mic volume to 7
97 D8 D8	Set mic volume to 8
97 D9 D9	Set mic volume to 9
97 DA DA	Set mic volume to 10
97 DB DB	Set mic volume to 11
97 DC DC	Set mic volume to 12
97 DD DD	Set mic volume to 13
97 DE DE	Set mic volume to 14
97 DF DF	Set mic volume to 15
97 E0 E0	Set mic volume to 16
97 E1 E1	Set mic volume to 17
97 E2 E2	Set mic volume to 18
97 E3 E3	Set mic volume to 19
97 E4 E4	Set mic volume to 20 (MAX)

Table 3: Return Codes

HEX Code	Name	Function	Return codes		Remarks
97 20 20	STANDBY	Speaker working Status	0	1	On/No faults = 1 OFF/Standby = 0
97 21 21	MUTE	Mute On/Off	0	1	Mute Off = 0 Mute = 1
97 22 22	PT2314E_SELECT	Input Select	0	3	Bluetooth = 0 Input 1 = 1 Input 2 = 2 Input 3 = 3
97 23 23	PT2314E_GAIN_GET	Volume Gain	0	20	20 steps total
97 24 24	PT2314E_B_GAIN_GET	Bass Gain	0	14	14 steps total
97 25 25	PT2314E_T_GAIN_GET	Treble Gain	0	14	14 steps total
97 26 26	BT_BIT	Bluetooth status	0	2	BT paired = 0 BT pairing = 1 BT OFF = 2
97 27 27	BT_PRIORITY	BT Priority Status	0	1	BT Priority OFF = 0 BT Priority ON = 1
97 28 28	AUTO_STANDBY	Auto standby Status	0	1	Auto standby OFF = 0 Auto standby ON = 1
97 29 29	M62429FP_GAIN_GET	MIC Volume Gain	0	20	20 steps total

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

## **SPECIFICATIONS**

AMPLIFIER DIMENSIONS: 236 x 215 x 64mm / 9.05" x 8.46" x 2.56" (wide x deep x tall) not including dials and connectors

CARTON DIMENSIONS: 415 x 230 x 80 mm / 16.34" x 9.06" x 3.15"

AMPLIFIER WEIGHT: 2.0 kg / 4.4 lb

PACKAGED WEIGHT: 2.4 kg / 5.3 lb

COLOUR: White

### **INPUTS**

3 x Stereo inputs via 2 x phono (RCA) connectors / 1 x 3.5mm (1/4") minijack

1 x Bluetooth input

1 x Microphone inputs via balanced XLR

### **OUTPUTS**

1 x Stereo Line-level output via phono connectors (post mix)

### **TECHNICAL DETAILS**

Digital 2 x 50w @ 8 ohms

Total Harmonic Distortion <1%

Frequency response (line in): 20Hz~20kHz

Signal to noise ratio (line in): 75dB

Rating input level/Impedance: line in 800~900mV/47kohms

Operating temperature range: 0 to +40°C (32 to +104 °F)

Power consumption (rating condition): <=125W

### **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)

POWER SUPPLY: 100~240V Internal Power Supply

WARRANTY: 3-year return to base

COMPLIANCES: RoHS, WEEE, CE/EMC, CE/LVD, C-TICK, FCC

SPARE IR REMOTE CONTROL: AV-1800 RC [SAP: 4360133]

## 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.*