Engineered for Art™

Ovation High Fidelity User Manual


Mains Input 50/60 Hz
Max Power Consumption 500W
The Ovation High Fidelity Company
www.ovationhifidelity.com
This equipment must always be earthed when plugged into the mains.
Caution: Dangerous mains voltages inside.
Do not open.
No user serviceable parts inside.
Refer to qualified service engineer.
Mains Fuse
110VAC - Use 5A
220VAC - Use 2,5A
Designed, Engineered and Assembled in England
Right
Speaker Output
Left
CE


CD
TUNER
MUTE
MSERV
IR
PHONO
AUX
HEADPHONES
INPUT SELECT
Power On/Off

OVATION©
HIGH FIDELITY

Engineered for Art™

Model 1707 Integrated Amplifier User Manual

February 2019 rev 1.0

Welcome to Ovation High Fidelity.

Thank you for purchasing this Ovation High Fidelity product. Every effort has been taken during the design, engineering and manufacture to ensure the highest levels of craftsmanship and quality so that you will have many years of trouble-free operation and musical enjoyment.

Proof of Purchase

Should the item be returned under warranty, proof of purchase will be required. Therefore, you must retain the original purchase invoice and receipt. We suggest you staple this into the rear inside cover of this user manual and retain it in a safe place after reading it

Product Usage Declaration

This product is designed for use in a domestic hi-fi system with 8 Ω ('Ohm') rated loudspeakers.

Warranty: -

- This product is warranted free of manufacturing defects for a period of five years from date of purchase.
- This warranty excludes cases where the product is abused, or used for purposes other than which it was intended, or modified in anyway whatsoever
- The warranty is not transferable
- Remote controls are warranted for a period of one year from date of purchase. The warranty does not cover damage due to battery leakage
- The costs of sending the product back to the company under warranty, and its subsequent return, are for the account of the purchaser

Returns Policy/30 Day Money Back Guarantee

Should you not be 100% satisfied with your product for any reason, you may return it within 30 days from date of delivery for a full refund provided

- The product is returned packed in the original packaging
- The product is not damaged in anyway whatsoever either electrically or cosmetically
- The company reserves the right to deduct from the refund any costs required to make good any damage to products returned by customers.
- The costs of returning the product back to the company under the 30 day money back guarantee are for the account of the purchaser.

The Ovation High Fidelity Company reserves the right to modify and/or make technical and/or design changes to the design of its products without obligation to prior purchasers

Unpacking Your New Product

Do not damage the carton or the packaging.

Retain all packaging (outer box, internal polystyrene buffers, polythene anti-scratch bags, documentation) in a safe, dry place until after your 30 day Money Back Guarantee has expired.

Check that you have the following items in the shipping carton:-

- Model 1707 Integrated Amplifier Unit
- Model 100 Remote control
- IEC mains lead with appropriate mains plug for your region
- User manual (this document)

Where to Locate Your New Model 1707 Integrated Amplifier

Your Model 1707 must be located in a well-ventilated area away from sources of heat, dust and humidity and direct sunlight. You should position the product alongside your other equipment. We do not recommend that you stack high fidelity components directly on top of one another as this could interfere with ventilation.

You may not place any Ovation High Fidelity product on a carpet as this will obstruct airflow and can lead to overheating.

Make sure that where the product is located, no liquids or any other foreign objects can enter the unit through the ventilation holes.

Keep this equipment out of the reach of children.

Warning!

Ovation High Fidelity products contain no user serviceable parts.

There are lethal mains voltages inside the unit.

***DO NOT open the product under any circumstances* - If faulty, refer it back to Ovation High Fidelity if still within the warranty period or to a qualified, authorized service engineer if not.**

This product must be Earthed when in use. Use the supplied mains cable to ensure this.

If you are not going to be using your equipment for any length of time – e.g. going away on vacation - it is advisable to unplug it from the mains.

Cleaning your Ovation High Fidelity Product

1. Unplug the unit from the mains supply
2. Use a soft, slightly damp cloth or chamois leather wipe to clean the unit.
3. Use a soft, dry, lint free cloth to wipe the unit down after step 2 is completed
4. Never use any abrasive agent to clean the unit – e.g. Cif, Vim, CLR or Softscrub
5. Never use furniture polish or similar oil based agents to clean your unit
6. Never use any solvent based cleaner like petroleum (i.e. gasoline), turpentine, benzene, paraffin, methylated spirits or similar

Model 1707 Front Panel Controls

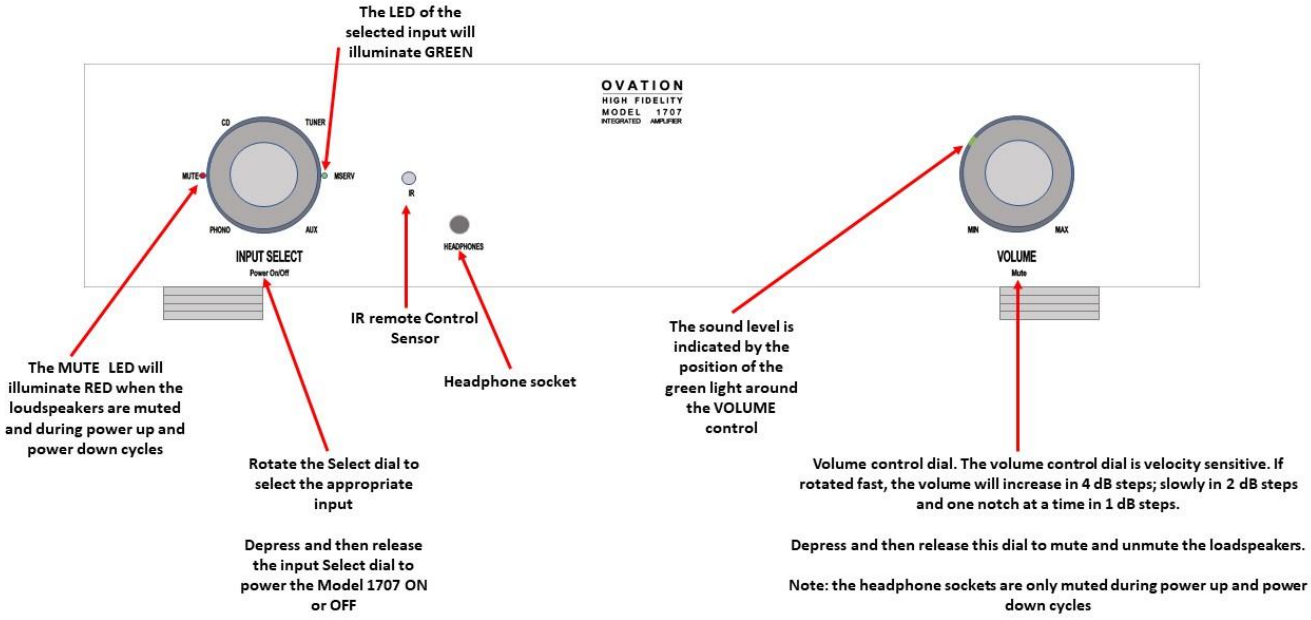


Figure 1 - Model 1707 Front Panel Layout

Model 1707 Rear Panel Connections

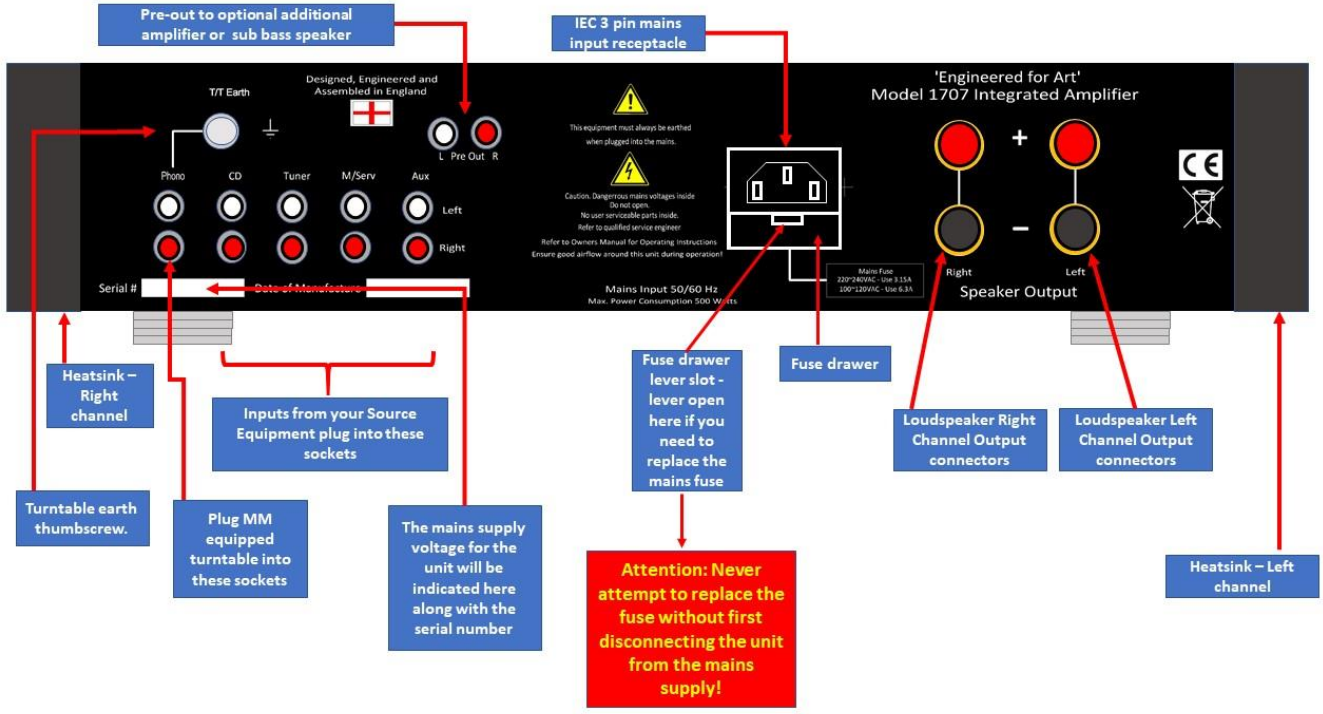


Figure 2 - Model 1707 Rear Panel layout

Connecting Signal Sources to your Model 1707 Integrated Amplifier

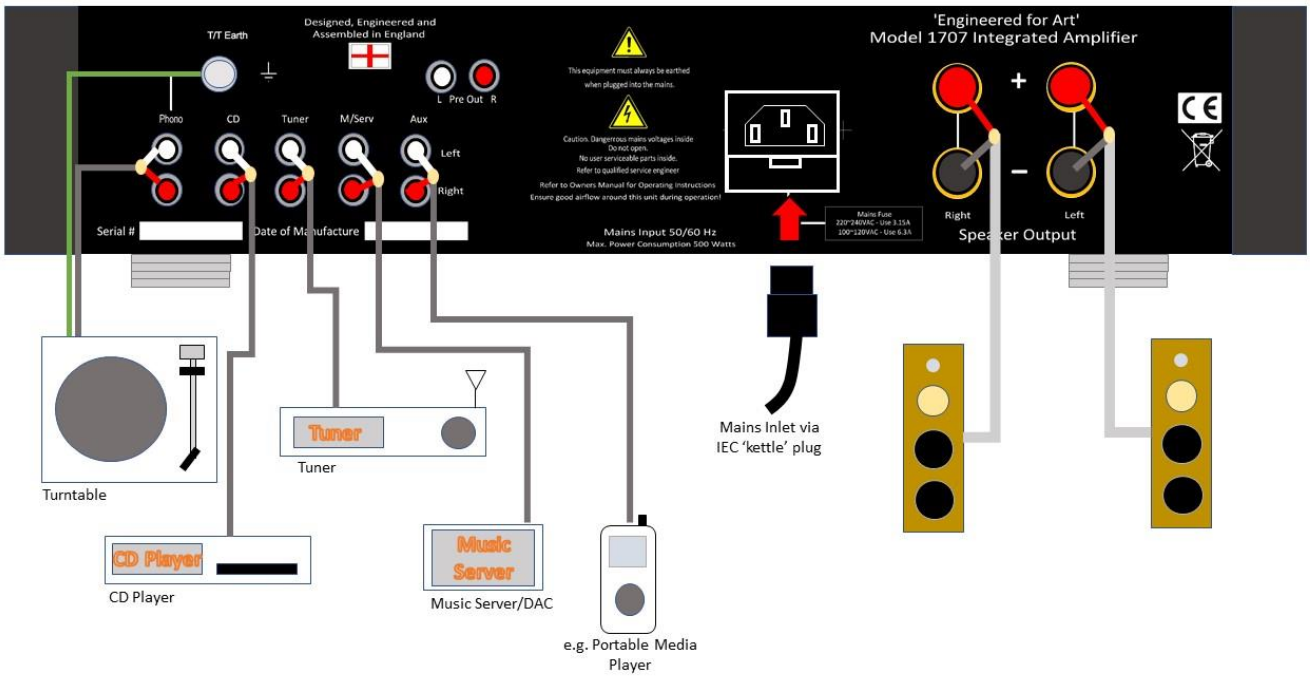


Figure 3 - Model 1707 Connection Diagram

The figure above shows how to connect the Model 1707 to source equipment and your loudspeakers. Note carefully the polarity of the loudspeaker connections.

Switching ON and OFF

(See 'Using the Model 100 Remote Control' later in this Document for the functions supported by remote control operation)

Firstly, ensure the MAINS POWER SWITCH on the wall socket is ON. When first plugging the unit into the mains power, the unit will enter standby mode where the power consumption will be <0.5W.

To bring the unit out of standby, depress and then release the select dial on the left-and side of the front panel. Note if you do this too quickly, the unit will intentionally not respond – you must keep the button depressed for at least 1 second. The red MUTE LED will illuminate along with the green input selection LED made during the last power-up cycle. Note, the default input is CD which is selected when the unit is powered up after the mains is first been applied.

The MUTE LED will extinguish a few seconds later, indicating that the output is active and the loudspeakers are engaged.

To turn your Model 1707 OFF, depress the select dial for at least 1 second and then release. The red MUTE LED will illuminate for a few seconds indicating that the loudspeakers have been muted as the unit powers down. About 3 seconds later the red LED will extinguish, indicating the unit has entered standby. Note that an internal LED, visible through the top plate ventilation grill remains ON whilst the unit is connected to the mains whether it is in standby or active.

Selecting a Source

To select a source, simply rotate the SELECT dial either clockwise or anti-clockwise. The green LED associated with the selected source will illuminate.

Adjusting the Volume

The VOLUME control is located on the right-hand side of the front panel. Rotate it clockwise to increase the volume and anti-clockwise to decrease the volume. When coming out of standby, or powering up for the first time, the volume is automatically set to the 8 o'clock position.

Note that the volume control is *velocity sensitive*. If you rotate it fast, the volume will increase/decrease quickly in 4 dB steps. If you rotate is slowly the volume will change in 2 dB steps, and if you rotate it one notch at a time the volume increase will be gradual in 0.5 dB steps, allowing you to adjust the volume precisely.

Attention: playing music at high levels for sustained periods can damage your hearing.

Muting the output

To mute the output from the loudspeakers, depress then release the volume pushbutton. Depress and release the button again to restore signal to the outputs. When the Model 1707 is muted, the RED MUTE LED on the left-hand side of the front panel will illuminate.

Note, muting the loudspeaker outputs does not mute the headphone socket on the front panel.

The headphone sockets however will be muted for a short period during the power up and power down cycles.

Using Headphones with Model 1707

When active (i.e. not in standby mode), depress the volume control dial. This will mute the loudspeakers, but sound will continue to available via the headphone socket. The headphone output of the Model 1707 is suited to headphones with an impedance of between 20 and 100 Ωs.

To re-engage the loudspeakers, depress the volume dial and then release it.

About the Advanced Protection Features on the Model 1707

A sophisticated 32-bit microprocessor-based system continuously monitors the model 1707 for DC offset errors and/or loudspeaker short circuits. If an error is detected, the loudspeakers are instantly disconnected from the amplifier.

During power up an power down cycles, to ensure there are no extraneous sounds, the system mutes the loudspeakers and the headphone output.

In the event of a fault condition arising and the speakers being disconnected, the GREEN LED's that surround the volume level control will flash once per second, and the RED MUTE LED will illuminate.

If this happens, check that you do not have a wiring short between the Model 1707 and your loudspeakers. You could check this for example by powering down and then disconnecting your speakers and powering the unit up again. If the unit behaves normally, you have a speaker or speaker cable fault. Clear the fault, reconnect the speakers and then power up the unit again.

In the unlikely event after disconnecting the loudspeakers the MUTE LED remains illuminated and/or the GREEN LED's around the volume control continue to flash, you have an internal fault. Kindly contact Ovation High Fidelity via the Contact page on our website for service.

Using the Model 100 Remote Control

Follow the instructions on the graphic below

The LED will illuminate when transmitting a command

Depress and then release this button to alternately power-up the Model 1707 or place it into standby mode

Depress and release this button to cycle clockwise through the input sources. The corresponding input source indicator LED on the front panel will illuminate

Increase the volume

Decrease the volume

Switch the tone control in and out with this button. Applies only to those products that have this facility.

Depressing this button will mute the loudspeakers but ***NOT*** the headphone output socket on the front panel

This button is reserved for future use

Select soft roll-off filter for 96kHz and higher sampling rates or standard sharp filter. For 44.1 and 48 kHz sample rate recorded material, this function is disabled. This function is only active on products fitted with the digital input facility. See the respective product user manual for further details

Select Bluetooth radio reception. Only active on Bluetooth equipped products.

Changing the batteries on the Model 100 Remote Control

The batteries in the Model 100 Remote control will typically last from between 6 and 12 months, depending upon usage. When your preamplifier or amplifier no longer responds to the remote control, or the functions operate erratically, the batteries must be replaced.

1. Slide the battery compartment cover off on the underside of the remote control
2. Remove the old batteries
3. Insert 2 off new AAA batteries, carefully noting the polarity orientation
4. Replace the battery compartment cover after which the remote should function correctly again.

Important Note:

If you are not going to be using your system for some weeks or months, we recommend you *remove* the batteries from your remote to avoid battery leakage, which will damage the internal connections and is not covered by the warranty. Store the batteries in a dry, cool location. Further, we recommend that you use good quality non-leak batteries like Duracell, Energizer or Rayovac.

Important Notice:

Batteries contain harmful chemicals and can damage the environment. Always dispose of batteries safely and in compliance with your local environmental regulations.

Replacing the Fuses on your Model 1707 Integrated Amplifier

In the unlikely event that the mains fuse on your unit should blow, you should check the following carefully before replacing it:-

1. You are using the correct mains voltage. The mains voltage for your product is set at the factory at the time of shipping and shown on the rear panel bottom left hand side of the unit.

2. The power switch on the wall socket is turned ON and the IEC mains plug is securely seated in the power receptacle on the rear of the Model 1707.

3. If your unit does still does not operate, you need to replace the fuse as detailed below

Important! Always unplug the unit from the mains before attempting to replace the fuse!

Use a flat bladed screw driver to lever open the fuse drawer

Replace the Model 1707 fuse with the ratings as indicated below

Mains Voltage	Fuse Rating	Fuse Type
110-130 VAC	6.3 A T	'T'
220 – 250 VAC	3.15 A T	'T'

Firmly push the drawer closed, after which you can reconnect the unit to the mains and then apply power.

Do not use fuses marked FF, F or M as these are fast/medium acting and will likely blow when you power the amplifier up. Only use 'T' fuses.

If the fuse immediately blows again, refer your unit to a qualified repair technician, or if still under warranty, contact the factory via the 'Contact' page at www.ovationhifidelity.com

Never use fuses rated higher than shown in the table above on your Model 1707. Equipment fuses are designed and rated to prevent fire hazard and are a legal requirement in all countries.

Trouble Shooting – Model 1707 Integrated Amplifier

Problem	Likely Cause	Action
Unit will not power up when depressing and releasing the SELECT dial	Power switch on the wall plug is not on, or the unit is not plugged in	Turn the mains power wall socket switch on and ensure the unit is plugged in and the power cable is securely seated in the power receptacle on the rear of the unit.
	Power Switch is on, but unit still does not power up	If the wall socket is ON and the unit plugged in correctly, check the Model 1707 mains fuse – see Page 13
There is no sound coming from the system	The mute function has been selected and or the volume is set too low	If the RED MUTE LED is illuminated, depress the VOLUME dial on the front panel and then release it. The MUTE LED will extinguish. If no sound is coming from the speakers, try adjusting the volume control in the clockwise direction. The level will be indicated by the green light within the volume dial recess
	Incorrect source is selected	Make sure the input SELECT dial is turned to select the source you have plugged into the rear panel of the unit and/or that you have plugged your source into the correct RCA receptacle on the rear of the unit.
Hum and a 'shhhh' sound comes out of the speakers when Phono is selected	No source is connected to the Phono input	***Without*** a turntable connected to the Phono input on the rear panel, you will get hum and hiss from the loudspeakers when you turn the volume up. Once you connect a turntable, this noise will disappear
	A turntable is connected, but there is still hum coming from the speakers	Make sure that the turntable earth bond wire is firmly attached to the Phono Ground Thumbscrew located in the top left-hand corner on the rear panel. See Figre 2 and Figure 3 (green wire) for details
The sound coming from the loudspeakers unit and through the headphones has no bass and is not a proper stereo sound	The input and/or output interconnects on the unit's rear panel are not pushed completely into their associated receptacles	Make sure all interconnect plugs are fully seated into their respective sockets. Make sure the speaker wiring polarity is correct : + on the Model 1707 to + on the loudspeaker and - to - on the speaker
The remote control is not working	The remote control batteries are flat	Replace the remote control batteries – See Page 12
The remote-control range is low and/or control of the Model 1707 using the Remote is erratic	The remote control batteries are flat	Replace the remote control batteries – See Page 12
The remote control is not working despite replacing the batteries	Hang-up of the microprocessor controller within the Model 1707 - highly unlikely but possible	Turn the power switch on the wall OFF. Wait 20 seconds. Turn the switch ON and then retry the remote control

If your unit is still not working correctly, kindly contact Ovation High Fidelity via the 'Contact' page at www.ovationhifidelity.com

Glossary – Some General Terms

AC	Alternating Current – the type of supply used in normal house wiring and to power consumer appliances like TV's, washing machines and high fidelity systems
A-D or A/D	Analog to Digital – an electronic technique whereby an analog signal is sampled at short, regular intervals and the sampled value converted into a representative numeric value that is stored in computer memory, CD or some other mass storage media
Analog Signal	A voltage or current signal that varies continuously with time. Examples are the pickup signal from a turntable, or the output signal from a microphone. All natural world signals are analog.
Balanced Audio Signals	A method whereby audio is transferred between equipment using two connections without reference to ground, making it highly immune to ground loop induced hum and extraneous noise pickup. Uses XLR connectors. See Unbalanced or single-ended audio signals
Bipolar Transistor	A three-terminal semiconductor amplifying device
CMT	Current Mode Topology – a type of audio amplifier wherein the peak current into the main amplifier stage is determined directly by the output voltage and the gain setting resistor. Also known as CFA (Current Feedback Amplifier)
D-A or D/A	Digital to Analog – the technique of converting digitally stored samples into a continuous analog signal
Damping factor	A measure of an amplifiers load impedance divided by its output impedance. The higher the figure the better. In a modern amplifier, any figure above 50 should be considered adequate and above 100 excellent
DC	Direct Current. Examples would be the type of current supplied by a battery
Decibel or dB	A logarithmic measure of an analog signal with respect to a reference, or expressed as the difference between two signals. 20 dB = 10x and 40 dB = 100x while 100 dB = 100 000x. By way of an example, if the S/N of a preamplifier is -100 dBV, it means that the noise is 100 000 times lower than 1V – i.e. 10 millionths of a Volt. The 'V' in dBV refers to the reference which is 1V and is an industry standard of measure
Digital Audio Signal	An audio analog signal is sampled at discrete time intervals and the resultant samples converted to a numerically representative value. An example is a CD, where the original analog signal (e.g. the voice of a singer) is sampled 41000 times a second and each sample converted to a 16 bit digital representation using an A-D which is then written to the CD
Digital signal	A binary coded numerical value represented by 0's and 1's where the '0' value corresponds to 0V and the '1' corresponds to 3.3V, 5V or some other non-zero voltage. Digital signals are either parallel or serial format. Examples of digital signals would be the co-ax output from a CD drive (serial digital signal), or the data on an Ethernet cable used in communications (also a serial digital signal)
Distortion and Noise	The presence in any electrical signal of unintended harmonics and/or noise. Reducing distortion and noise are key goals in any equipment that reproduces audio signals
EMI or Electro-Magnetic Interference	Noise and/or extraneous signal introduced into a system through magnetic or capacitive coupling mechanisms. Filtering, bandwidth limiting and careful design and equipment layout can reduce the effects orders of magnitude below human hearing threshold
EQ	Equalization
Frequency Response or Bandwidth	The extent of frequencies an amplifier can reproduce to within a specified range. Human hearing covers 20Hz to 20 kHz. Audio amplifiers should cover at least 2 Hz to 100 kHz (-3 dB) to ensure a flat response within the human hearing range of 20 Hz to 20 kHz
Input Sensitivity	The level of input signal required to produce a given output from a preamplifier or a power amplifier.
IR Remote	Infra-red Remote control
JFET	Junction Field Effect Transistor – a three terminal semiconductor amplifying device that somewhat emulates vacuum tube triodes in its performance characteristics.
Ω	Unit of electrical resistance. Most loudspeakers are rated at 8 Ωs
Output Power	Measured in Watts, the amount of electrical power that can be delivered into a loudspeaker load by an amplifier. Always quoted into a known resistive load – usually 4 or 8 Ωs
Phono socket	The small round sockets – usually grouped in Left (WHITE) and Right (RED) pairs on the rear side of audio equipment. Also referred to as 'RCA Phono' sockets
RC5 IR	The protocol by which commands from the remote are encoded and transmitted via infra-red to the receiving equipment which then executes them. Invented by Philips in the 1970's and now one amongst 4 or 5 industry standards
RIAA	Recording Industry Association of America – The association that standardized the LP/vinyl playback equalization curve in the early 1960's that is still the standard for LP/vinyl today
Signal to noise ratio (SNR)	A measure of the amount of noise in a system against the nominal output signal of that system. In modern equipment, any figure lower than -90 dBV should be considered very good, and lower than -100 dBV excellent
Slew Rate or S/R	The fastest rate of output voltage change that an amplifier can sustain. For consumer audio amplifiers, any figure above 100 Volts per microsecond (100 V/us) should be considered excellent
Small signal rise time	A measure of the speed (i.e. rate of change) of an amplifier or preamplifier when dealing with low level signals in the 1-2 Volt range. Small signal rise time and slew rate (S/R) are not equivalent
Unbalanced or single-ended audio signals	With this type of interconnection, the audio signal is transferred between equipment using a ground connection and a signal connection. It is more common than balanced audio signals due to its lower implementation cost, but much more susceptible to noise pick-up
VMT	Voltage Mode Topology – a type of amplifier wherein the peak current into the main gain stage is limited to that of the input stage 'Long Tail Pair' (LTP) current source. Also known as VFA (Voltage Feedback Amplifier)
XLR	The standard interconnect format for balanced audio signals

Specifications

Model 1707 Integrated Amplifier

General Description
A 110 Watt per channel stereo integrated amplifier featuring 4 line and a MM RIAA phono stage. Comprehensive microprocessor protection covers output shorts, DC offsets and switch ON/OFF muting along with remote control. A set of preamplifier output sockets allow a second amplifier or sub-bass to easily be attached to the Model 1707.

Inputs	5 off for CD, Tuner, Music Server, Aux, Phono; Phono equipped with a rumble filter
Input sensitivity	Phono: 3mV at 1kHz; Aux and Tuner – 350 mV; M/Serv and CD 2V; Phono overload capability ref 5mV input: > 32 dB 20 Hz to 20 kHz
Output Power	110 Watts RMS into 8 Ohms, both channels driven; 190 watts into 4 Ohms both channels driven; 330 Watts into 2 Ohms, single channel driven. All power levels quoted for 0.1% distortion
Distortion	Typically 0.001% at 1 Watt into 8 Ωs; Better than 0.007% at 100 Watts into 8 Ωs; Better than 0.01% at 160 Watts into 4 Ωs; 0.1% at rated output power
Peak Output Current	> 20 A for 50 ms both channels driven
Slew rate	> 140 V/us in both +ve and -ve directions
Frequency Response	1Watt into 8 Ohms: Line Level inputs: 20Hz to 20 kHz +0dB -0.1dB; 2Hz to 200 kHz +0dB -3dB Phono: RIAA conformance 20 Hz to 20 kHz +-0.15dB typical Built-in Phono Rumble Filter: -0.2dB at 20 Hz, -24 dB at 2 Hz ref output at 1kHz
Signal to Noise Ratio	Line: -100 dB ref 1 Watt Output into 8 Ωs; -110 dB ref 100 Watts into 8 Ωs Phono: ~79 dB ref 5 mV input at 1 kHz as measured at pre-out sockets
Pre-out Drive	10k Ω or higher ; Pre-out output impedance: 220 Ohms
Headphone Output	3 VRMS into 32 Ω; distortion < 0.02% 20Hz to 20kHz
Operating voltages	100-130 VAC or 200 to 260 VAC factory set at time of order
Power consumption	500 VA Max; < 1W in standby mode
Weight	15 Kgs unit only; 20 kgs when packed for shipment
Operating Temperature	-10 deg C to +45 deg C non-condensing
Warranty	5 years on parts and labour. Terms and conditions apply - See website for details.

The Ovation High Fidelity Company Limited
Norfolk, England
www.ovationhifidelity.com

Owners Information

Date Purchased: _____

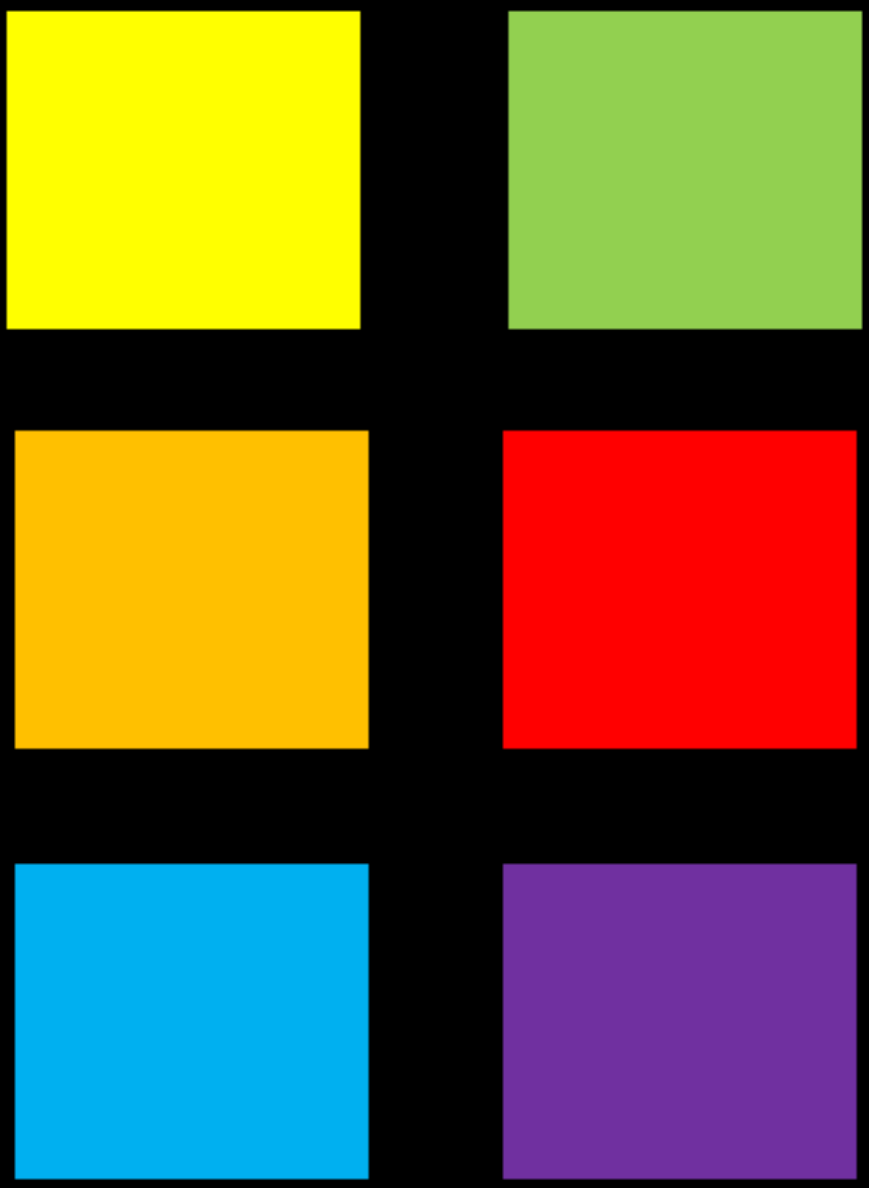
Dealer (if Applicable): _____

Warranty Registration Date: _____

Serial Number: _____


OVATION
HIGH FIDELITY
MODEL 1707
INTEGRATED AMPLIFIER
CD
TUNER
MUTE
MSERV
PHONO
AUX
INPUT SELECT
IR
HEADPHONES


'Engineered for Art'
Model 1707 Integrated Amplifier
+
–
Right
Left
Speaker Output



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