



ATSAH 500
MONO POWER AMPLIFIER

ACOUSTICIMAGERY

ATSAH 500 MONO POWER AMPS

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ATSAH 500 MONO POWER AMPLIFIER

INTRODUCTION

CONGRATULATIONS, YOU ARE NOW THE PROUD OWNER OF A PAIR OF ATSAH 500 MONO POWER AMPLIFIERS.

THE NCORE® NC500 CLASS D MODULE AT THE HEART OF THESE POWER AMPLIFIERS IS THE FINEST EXAMPLE OF ITS TYPE CURRENTLY AVAILABLE. COUPLED WITH A DEDICATED SWITCH MODE POWER SUPPLY MADE SPECIFICALLY TO WORK WITH THE CLASS D DESIGN, THIS AMPLIFIER WILL REPRODUCE MUSIC FAITHFULLY AND ACCURATELY FOR MANY YEARS TO COME.

THE HIGHEST QUALITY WORKMANSHIP OF THE ELECTRONICS IS MATCHED BY THE CUSTOM MADE COMPOSITE ENCLOSURES.

THE ENCLOSURES ARE AVAILABLE IN TWO FINISHES, BLACK CARBON FIBRE EFFECT AND METALLIC SILVER. BOTH OF WHICH HAVE A CLEAR ACRYLIC SURFACE TREATMENT WHICH IS BOTH DURABLE AND GOOD LOOKING.

WHEN LISTENING TO YOUR FAVOURITE TRACKS AMPLIFIED BY THE ATSAH 500 MONOS, YOU WILL BE DRAWN IN AND FORGET ALL ABOUT THE EQUIPMENT... IT SIMPLY SOUNDS LIKE REAL MUSIC.



ATSAH 500 MONO POWER AMPLIFIER

INSTALLATION

THE ATSAH 500 MONO POWER AMPLIFIERS ARE VERY SIMPLE TO INSTALL IF THE FOLLOWING INSTRUCTIONS ARE CARRIED OUT.

POSITIONING

THERE ARE TWO OPTIONS FOR POSITIONING.

1. BOTH AMPLIFIERS TOGETHER AND CLOSE TO THE PRE AMP/SOURCE COMPONENTS AND THEN USE LONG SPEAKER CABLES.
2. EACH POWER AMPLIFIER CLOSE TO THE SPEAKERS WITH SHORT SPEAKER CABLES AND THEN USE LONG SIGNAL (INTERCONNECT) CABLES.

THE AMPLIFIERS COME WITH RUBBER FEET AS STANDARD AND OPTIONAL SPIKES ARE AVAILABLE AT EXTRA COST, WHICH CAN BE FITTED INSTEAD OF THE STANDARD FEET. REFER TO YOUR DEALER FOR FITTING SPIKES AT THE TIME OF PURCHASE.

IN ALL LOCATIONS DO NOT PLACE THE AMPLIFIERS ON 'SOFT' SURFACES SUCH AS DEEP PILE CARPET AND ENSURE THAT THERE IS AT LEAST 5CM (2") OF CLEAR SPACE ALL ROUND THE AMPLIFIER IF PLACED IN A RACK OR SHELVING. THE AMPLIFIER MUST HAVE A CLEAR FLOW OF AIR THROUGH THE TOP AND BOTTOM VENTILATION SLOTS.

ATSAH 500 MONO POWER AMPLIFIER

INSTALLATION

AC POWER

USE THE SUPPLIED AC POWER CORD TO CONNECT THE AMPLIFIER TO A SUITABLE WALL OUTLET, WHICH MUST HAVE A SAFETY EARTH. THIS NEED NOT BE SWITCHED AS THE AMPLIFIER HAS ITS OWN SWITCHED FUSED IEC INPUT SOCKET. THERE IS A SPARE FUSE LOCATED IN THE IEC SOCKET OF THE CORRECT VALUE SHOULD THE FITTED FUSE FAIL FOR ANY REASON. NEVER REPLACE THIS FUSE WITH ANY OTHER VALUE AND IN PARTICULAR NEVER WITH A HIGHER RATED ONE. ALWAYS DISCONNECT THE POWER CORD BEFORE REPLACING A FUSE. IF THE FUSE KEEPS FAILING THEN CONTACT YOUR DEALER, NEVER OPEN THE CASE AS THERE ARE NO USER SERVICEABLE PARTS AND THERE MAY BE HAZARDOUS VOLTAGES INSIDE. UNAUTHORISED OPENING OF THE CASE WILL INVALIDATE ANY GUARANTEE DURING THE WARRANTY PERIOD. ONLY A QUALIFIED SERVICE TECHNICIAN MAY CARRY OUT WORK ON THE AMPLIFIER.

SIGNAL INPUT

THE ATSAH 500 MONO POWER AMPLIFIERS CAN BE DRIVEN BY ANY LINE LEVEL SOURCE UP TO $\pm 15V$ AND THE INPUT IS A BALANCED XLR SOCKET WITH PIN 2 THE +VE SIGNAL, PIN 3 THE -VE SIGNAL AND PIN 1 THE GROUND.

SHOULD A SINGLE ENDED RCA TYPE CABLE BE USED THEN YOUR DEALER CAN SUPPLY A LEAD WITH RCA - XLR PLUGS.

USING THE INPUT WITH FULLY BALANCED LEADS IS THE PREFERRED OPTION AND WILL GIVE A BETTER QUALITY SOUND.

ATSAH 500 MONO POWER AMPLIFIER

INSTALLATION

LOUDSPEAKER OUTPUTS

THE BINDING POSTS FITTED TO THIS ATSAH 500 MONO AMPLIFIER ARE A MULTI-WAY SHIELDED DESIGN ABLE TO ACCEPT A BARE WIRE, SPADE CONNECTORS OR 4MM BANANA PLUGS.

IN NORMAL USE CONNECT YOUR SPEAKER LEADS AS FOLLOWS :-
RED TERMINAL +VE, BLACK TERMINAL -VE.

DO NOT CONNECT THE LOUDSPEAKER OUTPUTS TO ANY SWITCHBOX OR ACCESSORY OR TEST EQUIPMENT WHICH HAS A COMMON GROUND CONNECTION.



ATSAH 500 MONO POWER AMPLIFIER

OPERATION

BECAUSE YOUR ATSAH 500 MONO POWER AMPLIFIER IS CAPABLE OF DELIVERING VERY HIGH CURRENT, PLEASE ENSURE THAT ALL CONNECTIONS ARE MADE WITH THE AC POWER SWITCHED OFF.

WHEN THE SPEAKER CABLES, SIGNAL CABLE AND AC POWER CORD ARE CONNECTED TO THE CORRECT INPUT/OUTPUT SOCKETS ENSURE THAT YOUR SOURCE EQUIPMENT IS TURNED ON AND THE VOLUME CONTROL IS TURNED TO MINIMUM.

NEXT, TURN ON THE ATSAH 500 MONO POWER AMPLIFIER USING THE ROCKER SWITCH ON THE IEC MAINS POWER SOCKET WHICH IS ON THE REAR OF THE AMPLIFIER.

WHEN THE AMPLIFIER POWERS UP THERE WILL BE A SHORT PERIOD OF TIME (LESS THAN 2 SECONDS) AND YOU WILL HEAR A 'CLICKING SOUND' AS THE SOFT START CIRCUIT ENERGISES THE POWER AMPLIFIER MODULE.

ALWAYS OBSERVE THE SEQUENCE FOR SWITCHING YOUR SYSTEM ON WHICH IS SOURCE FIRST, PRE-AMPLIFIER NEXT AND FINALLY WITH VOLUME CONTROL SET TO MINIMUM, THE POWER AMPLIFIER. THIS WILL ENSURE YOUR LOUDSPEAKERS OR YOUR EARS WILL NOT BE SUBJECTED TO SUDDEN VERY LOUD TRANSIENTS.

WHEN PLAYING MUSIC FOR THE FIRST TIME, ALLOW THE MUSIC TO START AND INCREASE THE VOLUME CONTROL SLOWLY AT FIRST BEFORE SETTING IT TO YOUR PREFERRED, NORMAL LISTENING LEVEL.

IF ALL IS WELL AND THERE ARE NO OBVIOUS PROBLEMS, SIT BACK, RELAX AND ENJOY!

ATSAH 500 MONO POWER AMPLIFIER

OPERATION

THE PROCEDURE FOR SWITCHING OFF YOUR SYSTEM AT THE END OF A LISTENING SESSION IS THE REVERSE OF SWITCHING ON. ALWAYS TURN THE VOLUME CONTROL DOWN FIRST AND THEN SWITCH OFF THE POWER AMPLIFIERS FOLLOWED BY THE PRE AMP AND FINALLY THE SOURCE COMPONENTS.

ALL ELECTRONICS INCLUDING PRINTED CIRCUIT BOARDS, WIRES AND COMPONENTS WILL IMPROVE THEIR PERFORMANCE DURING THE FIRST 100 TO 200 HOURS OF PLAYING MUSIC. THIS IS COMMONLY REFERRED TO AS THE 'BREAK IN' PERIOD AND YOU SHOULD NOTICE THE SOUND QUALITY WILL GET BETTER OVER THIS INITIAL PERIOD.

IF YOU CHOOSE TO LEAVE YOUR SYSTEM POWERED UP ALL THE TIME, THERE SHOULD BE NO DETRIMENTAL EFFECT IN DOING SO. THE BENEFIT OF THIS IS THAT ALL THE COMPONENTS IN THE AMPLIFIER WILL BE AT OPTIMUM TEMPERATURE WHEN YOU RESUME LISTENING TO MUSIC. HOWEVER THE DOWN SIDE IS THAT YOU ARE USING ELECTRICITY WHEN NOT LISTENING TO YOUR SOUND SYSTEM.

IF YOU CHOOSE TO LEAVE YOUR SYSTEM ON ALL THE TIME THE OUTER CASE WILL APPEAR TO BE WARM TO THE TOUCH. THIS IS ENTIRELY NORMAL AND THE VENTILATION SLOTS WILL PREVENT EXCESSIVE HEAT BUILD UP.

YOUR CLASS D ATSAH 500 MONO AMPLIFIER IS VERY EFFICIENT AND WHEN AT IDLE, WILL CONSUME APPROXIMATELY 25 WATTS OF POWER. THE CHOICE IS YOURS.

ATSAH 500 MONO POWER AMPLIFIER

SPECIFICATIONS

ELECTRICAL

400 WATTS INTO 8Ω

OUTPUT POWER ~ 700 WATTS INTO 4Ω

550 WATTS INTO 2Ω

THD AT FULL OUTPUT ~ 1%

THD + N, IMD* ~ 0.004%

FREQUENCY RESPONSE ~ 0HZ - 50KHZ +0/-3DB ALL LOADS

GAIN ~ 26DB

EFFICIENCY @ FULL POWER ~ 93%

PHYSICAL

MAINS INPUT ~ 230V/50HZ OR 120V/60HZ VIA IEC SWITCHED FUSED SOCKET
THE VOLTAGE REQUIREMENT WILL BE SET TO SUIT EITHER OF THE TWO STANDARDS

SIGNAL INPUT ~ MAX $\pm 15V$ VIA NEUTRIK® XLR SOCKET

LOUDSPEAKER CONNECTION ~ MULTI-WAY, SHIELDED BINDING POSTS

DIMENSIONS ~ 200MM WIDTH 220MM DEPTH 65MM HIGH

WEIGHT ~ 2KG

* AT HIGHER AUDIO FREQUENCIES THERE ARE NOT ENOUGH HARMONICS LEFT IN THE AUDIO BAND TO MAKE A MEANINGFUL THD MEASUREMENT.

HIGH FREQUENCY DISTORTION IS THEREFORE DETERMINED USING A 18.5KHZ + 19.5KHZ 1:1 TWO-TONE IMD TEST.

ATSAH 500 MONO POWER AMPLIFIER

TROUBLE SHOOTING

YOUR ATSAH 500 MONO AMPLIFIERS ARE DESIGNED TO BE RELIABLE AND TROUBLE FREE GIVING A LIFETIME OF MUSICAL PLEASURE.

HOWEVER, IN THE UNLIKELY EVENT THAT SOMETHING GOES WRONG, A FEW SIMPLE CHECKS MAY AVOID HAVING TO RETURN AN AMPLIFIER TO YOUR DEALER.

IF THE AMPLIFIER OVERHEATS AND FOR THIS TO HAPPEN THE HEATSINKS ON THE CIRCUIT BOARDS WHICH ARE CONNECTED TO THE CASE, WILL HAVE TO REACH A TEMPERATURE OF 90°C. THEN THE AMPLIFIER WILL SHUT DOWN AND WILL ONLY RESTART WHEN THE TEMPERATURE IS BACK BELOW 90°C. THIS SITUATION WILL BE AVOIDED IF THE INSTRUCTIONS IN THE 'INSTALLATION' SECTION ARE FOLLOWED AND THE AMPLIFIERS HAVE ADEQUATE AIRFLOW AROUND THEM.

IF AN AMPLIFIER SHUTS DOWN UNEXPECTEDLY AND IT IS NOT DUE TO OVERHEATING, THERE IS A FUSE IN THE AC POWER IEC INPUT SOCKET WHICH CAN BE CHECKED. REPLACE A FAILED FUSE WITH THE SPARE FUSE WHICH IS ALSO LOCATED IN THE IEC INPUT SOCKET. NEVER REPLACE THE FUSE WITH A HIGHER RATED ONE. IF THE AMPLIFIER IS STILL NOT WORKING THEN RETURN IT TO YOUR DEALER FOR FURTHER INVESTIGATION BY AN AUTHORISED SERVICE TECHNICIAN.

THE AMPLIFIERS WILL NOT OPERATE CORRECTLY IF THE AC VOLTAGE IS OUTSIDE THE FOLLOWING PARAMETERS:-

90V - 130V FOR 120V MODELS AND 180V - 260V FOR 230V MODELS.

THERE ARE NO USER SERVICEABLE PARTS INSIDE THE AMPLIFIER CASES, AND REMOVAL OF THE FIXING SCREWS BY NON AUTHORISED PERSONNEL WILL INVALIDATE ANY WARRANTY.

ATSAH 500 MONO POWER AMPLIFIER

WARRANTY

YOUR ATSAH 500 MONO POWER AMPLIFIER IS WARRANTED AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF 12 MONTHS FROM THE DATE OF ORIGINAL PURCHASE. THIS COVERAGE IS AUTOMATIC UPON ACCEPTANCE OF DELIVERY AND NO REGISTRATION IS REQUIRED.

YOU HAVE THE OPTION AT NO COST TO EXTEND THE WARRANTY TO A PERIOD OF 2 YEARS FROM THE DATE OF PURCHASE BY RETURNING A COMPLETED WARRANTY REGISTRATION CARD TO ACOUSTICIMAGERY LTD WITHIN 30 DAYS OF PURCHASE. THIS OPTIONAL WARRANTY IS ONLY AVAILABLE WITHIN THE 30 DAY REGISTRATION PERIOD.

IF ANY DEFECTS ARE FOUND IN THE MATERIALS OR WORKMANSHIP OF THIS ACOUSTICIMAGERY PRODUCT WITHIN THE WARRANTY PERIOD, THE UNIT WILL BE REPAIRED OR REPLACED BY ACOUSTICIMAGERY LTD OR ITS AUTHORISED AGENT.

THE PURCHASER MUST RETURN THE PRODUCT PACKED IN THE ORIGINAL SHIPPING CARTON, FREIGHT PRE-PAID TO: **3 FLINGERS LANE, WINCANTON, SOMERSET BA9 9LE UK**

THE PRODUCT MUST BE ACCOMPANIED BY A WRITTEN DESCRIPTION OF THE DEFECT AND A PHOTOCOPY OF YOUR ORIGINAL PURCHASE RECEIPT. ACOUSTICIMAGERY WILL NOT BE RESPONSIBLE FOR ANY SHIPPING DAMAGE AND STRONGLY RECOMMENDS THE PURCHASE OF SHIPPING INSURANCE.

ACOUSTICIMAGERY RESERVES THE RIGHT TO INSPECT ANY PRODUCT THAT IS THE SUBJECT OF ANY WARRANTY CLAIM PRIOR TO REPAIRING OR REPLACING IT. FINAL DETERMINATION OF WARRANTY COVERAGE LIES SOLELY WITH ACOUSTICIMAGERY.

OUT-OF-WARRANTY CLAIMS WILL BE BILLED FOR LABOUR, MATERIALS, RETURN FREIGHT AND INSURANCE AS REQUIRED. ANY PRODUCT FOR WHICH A WARRANTY CLAIM IS ACCEPTED WILL BE RETURNED TO THE PURCHASER AND THE COST OF SHIPPING AND INSURANCE WILL BE PRE-PAID BY ACOUSTICIMAGERY.

THE ABOVE WARRANTY IS THE SOLE WARRANTY GIVEN BY ACOUSTICIMAGERY AND IS IN LIEU OF ALL OTHER WARRANTIES. ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE SHALL BE STRICTLY LIMITED TO THE DURATION OF THE ABOVE WARRANTY. ACOUSTICIMAGERY SHALL HAVE NO FURTHER OBLIGATION OF ANY KIND, WHETHER EXPRESS OR IMPLIED. FURTHER, ACOUSTICIMAGERY SHALL IN NO EVENT BE OBLIGATED FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AS A RESULT OF ANY DEFECT OR ANY WARRANTY CLAIM, WHETHER EXPRESS OR IMPLIED.

ACOUSTICIMAGERY DOES NOT AUTHORISE ANY 3RD PARTY, INCLUDING ANY DEALER OR SALES REPRESENTATIVE TO ASSUME ANY LIABILITY OF ACOUSTICIMAGERY OR MAKE ANY WARRANTY FOR ACOUSTICIMAGERY. THE UNIT MUST NOT HAVE BEEN ALTERED OR IMPROPERLY SERVICED. THE SERIAL NUMBER ON THE UNIT MUST NOT HAVE BEEN ALTERED OR REMOVED.

THE REMAINING PERIOD OF THIS WARRANTY IS ONLY TRANSFERABLE TO SUBSEQUENT PURCHASERS IF THE PRODUCT IS RESOLD BY AN AUTHORISED ACOUSTICIMAGERY DEALER.

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