

# AMS50

ANTONY MICHAELSON SIGNATURE  
50W Pure Class A Dual Mono Power Amplifier



*Thank you for purchasing the Musical Fidelity AMS50.*

*The AMS50 uses the latest in low distortion circuitry in a bridged configuration which delivers 50 watts of pure class A power. The AMS50 is designed with pure undistorted experience in mind. Overall the listening experience is greatly improved because of dramatically lower distortion and increased dynamic range.*

*The AMS50 accepts both XLR balanced and RCA line level inputs. When driven from a balanced pre-amplifier the sound quality is greatly improved because the balanced cable cancels out noise and interference artefacts, giving up to 12dB increase in dynamic range.*

*The Primo Pre-amplifier is an ideal partner as it features a fully valve signal path and true balanced operation throughout. Alternatively, the AMS50 can be used as a conventional power amplifier driven by a high quality preamp.*

*The AMS50 is a perfect answer to pure musicality in a single beautifully engineered package. Used properly and carefully, it should give many years of outstanding musical reproduction.*

*Dust regularly with a soft duster or soft brush, but be careful when using cleaning or polishing agents - they may harm the surface finish.*

*If there are further questions about any Musical Fidelity component, please consult the dealer from whom it was purchased, who is there to help and give advice.*

MUSICAL FIDELITY

<b>PAGE</b>	<b>Section</b>	
<b>3</b>	<b>Safety information</b>	- Mains plug (U.K. only) Modification warning
<b>4</b>	<b>General advice</b>	- Installation precautions - User information
<b>5</b>	<b>Item disposal information</b>	- EU disposal information
<b>6</b>	<b>Installation</b>	- Introduction Installation Audio connection Cleaning
<b>7</b>	<b>Connections</b>	- Illustrations - front and rear panels
<b>8</b>	<b>Amplifier operation</b>	- Operation and features
<b>9</b>	<b>Amplifier problems?</b>	- Basic Amplifier fault finding
<b>10</b>	<b>Amplifier specifications</b>	- Typical specifications, accessories And dimensions
<b>11</b>	<b>Manual history</b>	

## IMPORTANT! (U.K. only)


This unit is supplied in the U.K. with mains lead fitted with a moulded 13 amp plug. If, for any reason, you need to cut off the plug, please remove the fuse holder and dispose of the plug safely, out of reach of children. **It must not be plugged into a mains outlet.**

The wires in the mains lead supplied with this appliance are coloured in accordance with the following code:

Green and yellow.....Earth  
Blue.....Neutral  
Brown.....Live

### **WARNING - This appliance MUST be earthed**

As the colours of the wires of the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or coloured green or green-and-yellow, or by the earth symbol : 

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

If connecting to a BS1363 plug, a 13 amp fuse must be used.

### **WARNING:**

**ANY MODIFICATIONS TO THIS PRODUCT NOT EXPRESSLY APPROVED BY MUSICAL FIDELITY WHO IS THE PARTY RESPONSIBLE FOR STANDARDS COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THIS EQUIPMENT.**

### INSTALLATION PRECAUTIONS and USER INFORMATION

Your new AMS50 is designed and built to provide trouble-free performance, but as with all electronic devices it is necessary to observe a few precautions:

This unit features a **BRIDGED** speaker output and should **NOT** be grounded on either speaker output terminal as both terminals are effectively “hot”, i.e. carry signal. Please check if using *any* active “sub”, electrostatic, or other non standard potentially grounded speaker types directly connected to the outputs of the AMS50. Consult speaker manual or supplier if in doubt.

Heed all warnings shown on the back of the product.

Only connect the AMS50 to a mains outlet having the same voltage as marked at the back of the unit.

Always ensure that when disconnecting and reconnecting your audio equipment the mains supply is switched off.

Position the mains lead and signal interconnects where they are not likely to be walked on or trapped by items placed on them.

Do not use near water, or place water-filled containers on the AMS50, for example, a flower vase or potted plants. **If water does spill inside, immediately pull out the mains plug from the wall socket and inform your dealer, who should then check the unit before further use. Entry of liquid into the AMS50 is dangerous, and may cause electric shock or fire hazard.**

Do not place the unit near direct heat sources such as radiators, direct sunlight or other equipment.

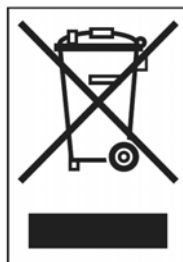
Do not remove any covers or try to gain access to the inside. There are no internal adjustments or fuses you can replace yourself. Refer all service work to an authorised Musical Fidelity agent.

**Note: Unauthorised opening of the equipment will invalidate any warranty claim.**

Dust regularly with a soft cloth or soft brush but be careful when using cleaning or polishing agents - they may harm the surface finish.

The electronics in modern hi-fi equipment is complex and may, therefore, be adversely affected or damaged by lightning. For protection of your audio system during electrical storms, remove the mains plugs and disconnect any aerial lead.

If after-sales service is required, to help your dealer identify the AMS50 please quote the serial number located on the rear panel of the unit.

**DISPOSAL**

The crossed out wheeled bin label that appears on the back panel of the product indicates that the product must not be disposed of as normal household waste. To prevent possible harm to the environment please separate the product from other waste to ensure that it can be recycled in an environmentally safe manner. Please contact local government office or retailer for available collection facilities.

**DISPOSITION**

La poubelle sur roulettes barrées X, qui apparaît en logo sur le panneau arrière du produit, indique que celui-ci ne doit pas être traité comme un déchet domestique commun. Afin de protéger l'environnement, ce produit électronique devra être géré séparément et donc recyclé selon les nouvelles normes Européennes Rohs concernant les déchets d'appareils électroniques. Prière de contacter les services concernés gouvernementaux ou votre point de vente pour l'élimination et l'enlèvement de déchets électroniques équipés de composants électroniques.

**DISPOSAL**

La etiqueta cruzada hacia fuera del compartimiento que aparece en el panel trasero del producto indica que el producto no se debe reciclar como basura normal de la casa. Para prevenir daños posible al ambiente separe por favor el producto de otras basura para asegurarse de que puede ser reciclada de una manera ambientalmente segura. Entre en contacto por favor a su oficina gubernamental local o a su minorista para las instalaciones disponibles de la colección.

**RIFIUTI**

L'etichetta del cassonetto barrato riportato sul retro dell'apparecchio indica che il prodotto non deve essere smaltito tramite la procedura normale di smaltimento dei rifiuti domestici. Per evitare eventuali danni all'ambiente, separare questo prodotto da altri rifiuti domestici in modo che possa venire riciclato in base alle procedure di rispetto ambientale. Per maggiori dettagli sulle aree di raccolta disponibili, contattate l'ufficio govenativo locale od il rivenditore del prodotto.

**FACHGERECHTE ENTSORGUNG:**

Das auf der Geräterückseite angebrachte Label deutet darauf hin, dass das Produkt nicht mit konventionellem Hauskehricht entsorgt werden darf. Um Schäden und Verschmutzungen an Umwelt und Mensch zu vermeiden, muss das Produkt fachgerecht entsorgt und von anderem Abfall getrennt werden. Wenden Sie sich bei Fragen hierzu an Ihren Fachhändler oder an eine öffentliche Informationsstelle.

**AFVAL**

Het label op de achterzijde van dit apparaat, een afvalbak op wielen met een kruis doorgehaald, geeft aan dat dit apparaat niet samen met gewoon huishoudafval mag worden weggegooid. Om mogelijke schade aan onze leefomgeving te voorkomen dient dit apparaat, gescheiden van gewoon huishoudelijk afval, te worden afgevoerd zodat het op een milieuvriendelijke manier kan worden gerecycled. Neem voor beschikbare inzamelplaatsen contact op met uw gemeentelijke reinigingsdienst of met uw elektronica leverancier.

**HÄVITTÄMINEN**

Yliüksattua jäteastiaa kuvaava tarra tuotteen takalevyssä kertoo, että tuotetta ei saa käsitellä normaalina talousjätteenä. Ympäristön suojelemiseksi on tuote pidettävä erillään muusta jätteestä ja se on kierrätettävä ekologisesti kestävällä tavalla. Ota yhteyttä laitteen myyjään tai Pirkanmaan Ympäristökeskukseen lähimmän kierrätyskeskuksen löytämiseksi.

**AFSKAFNING**

Logoet med en skraldespand med kryds over på bagsiden af apparatet indikerer at dette produkt ikke må kasseres som normal husholdningsaffald. For at forebygge mulig skade på miljøet, bedes De separere dette produkt fra andet affald, og sikre at det bliver genbrugt på en miljørigtig måde. Kontakt venligst de lokale myndigheder eller din forhandler for oplysning om nærmeste tilgængelige opsamlingssted for elektronikaffald.

**ΔΙΑΔΙΚΑΣΙΑ ΑΠΟΡΡΙΨΗΣ**

ΤΟ ΣΗΜΑ ΜΕ ΤΟΝ ΔΙΑΓΕΓΡΑΜΜΕΝΟ ΤΡΟΧΗΛΑΤΟ ΚΑΔΟ ΑΠΟΡΡΙΜΑΤΩΝ ΣΤΗΝ ΠΙΣΩ ΟΨΗ ΤΟΥ ΜΗΧΑΝΗΜΑΤΟΣ ΔΗΛΩΝΕΙ ΟΤΙ ΤΟ ΠΡΟΙΟΝ ΑΥΤΟ ΔΕΝ ΠΡΕΠΕΙ ΝΑ ΔΙΑΧΕΙΡΙΣΘΕΙ ΣΑΝ ΣΥΝΗΘΙΣΜΕΝΟ ΟΙΚΙΑΚΟ ΑΠΟΒΛΗΤΟ. ΠΡΟΣ ΑΠΟΦΥΓΗ ΕΝΔΕΧΟΜΕΝΗΣ ΕΠΙΒΑΡΥΝΣΗΣ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ, ΞΕΧΩΡΙΣΤΕ ΤΟ ΠΡΟΙΟΝ ΑΠΟ ΤΑ ΑΛΛΑ ΑΠΟΡΡΙΜΑΤΑ ΩΣΤΕ ΝΑ ΕΞΑΣΦΑΛΙΣΘΕΙ Η ΑΝΑΚΥΚΛΩΣΗ ΤΟΥ ΜΕ ΤΟΝ ΠΡΕΠΟΝΤΑ ΤΡΟΠΟ. ΠΑΡΑΚΑΛΟΥΜΕ ΝΑ ΕΠΙΚΟΙΝΩΝΗΣΕΤΕ ΜΕ ΤΗΝ ΤΟΠΙΚΗ ΥΠΗΡΕΣΙΑ ΑΝΑΚΥΚΛΩΣΗΣ Η ΜΕ ΤΟ ΚΑΤΑΣΤΗΜΑ ΑΓΟΡΑΣ ΓΙΑ ΠΕΡΙΣΣΟΤΕΡΕΣ ΛΕΠΤΟΜΕΡΕΙΕΣ.

**SETTING UP**

Position the AMS50 on a stable, horizontal surface where there is no risk of it being knocked.

Make sure ALL units involved are switched off and unplugged from mains supply before making or removing any connections.

During normal use, a class A amplifier, such as the AMS50, develops an appreciable amount of internal heat. It should therefore be sensibly situated where it can radiate this heat most efficiently. If this is not realised, heat build-up will occur and may cause the amplifier to shut itself down. It is thus recommended that the unit is situated in an open rather than enclosed space and away from other sources of heat.

**AUDIO CONNECTIONS**

**Inputs:** The AMS50 has a pair of RCA (single ended), and XLR (balanced) level inputs. Choose which inputs are to be used. It is recommended using the XLR inputs if your preamp features XLR balanced outputs to obtain maximum benefits of the balanced circuits.

Either the RCA *or* XLR inputs can be used at any one time. It is *not* possible, for example, to connect both RCA and XLR sources and use the switch to select between the two.

**FOR XLR INPUTS:**

The XLR balanced input allows direct connection from a pre-amplifier's balanced outputs where available. This provides a trap for external noise and distortion artefacts whilst allowing the signal through completely unaffected.

Make sure the RCA/XLR selector slide switch on the back panel is set correspondingly (down).

**FOR RCA INPUT:**

The RCA line input allows connection from a preamplifier or amplifier's preamp RCA (single ended) outputs.

Use phono to phono cables to connect the left and right outputs on the preamplifier outputs to the left and right line level inputs on the AMS50.

Make sure the RCA/XLR selector slide switch on the back panel is set correspondingly (up).

**Note:** in *both* input cases it is assumed that the driving preamplifier has a VOLUME CONTROL to allow setting of listening level. This is important as the AMS50 has no volume control of its own.

**OUTPUTS:**

Connect loudspeakers to the terminals near the base of the back panel marked as **OUTPUTS**. Make sure (+) lead from amplifier speaker output goes to (+) lead on speaker terminals, and (-) to (-). It is most important to get the phase of these leads correct.

**MAINS POWER INPUT**

Check the rear panel mains switch is set to "off". Connect the supplied mains lead to the IEC socket near base of back panel. Connect the other end to a mains power socket.

**TRIGGER INPUT**

A remote triggering input is available to allow the amplifier to be turned on automatically by other equipment. This is a 2-way 3.5mm jack on the back of the unit labelled "TRIGGER". It requires 5 to 12V (either polarity) to switch the amplifier on. Such a trigger signal is available from (for example) most home theatre setups.

**Note:** The trigger input acts as override to the front panel push switch only. The unit will need to be switched 'on' using the rocker switch at the back in order for the trigger input to work.

**CAUTION!!**

This unit features a **BRIDGED** output and should **NOT** be grounded on either output terminal as both are effectively "hot". Please check if using *any* active "sub", electrostatic, or other non standard speaker types directly connected to the outputs of the AMS50. Consult speaker manual or supplier if in doubt.

***Additional note-***

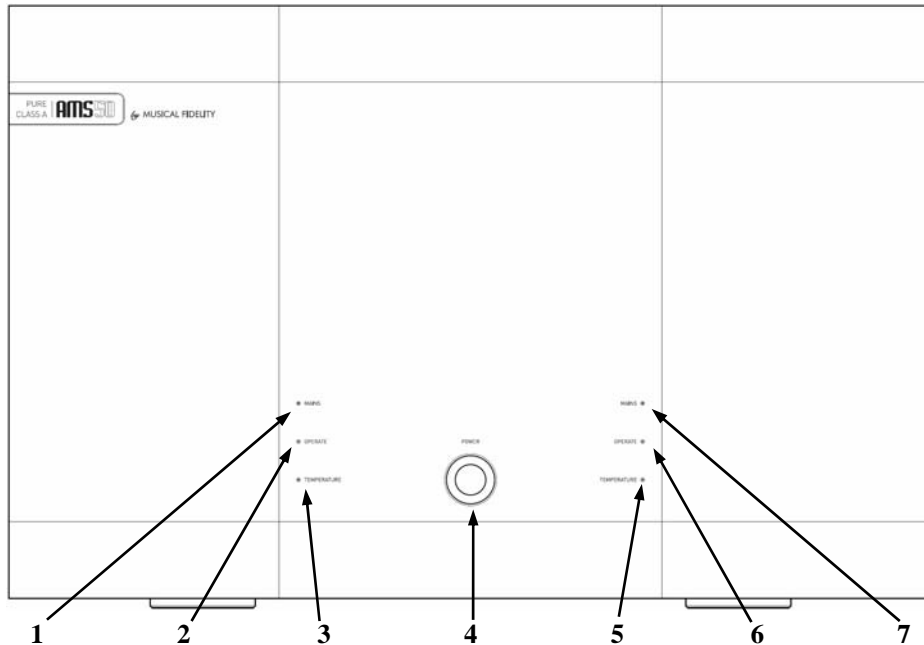
If bi-amping, please ensure that speaker shorting links linking treble and bass units are removed. Failure to do so may result in damage to connected amplifier(s) and/or the AMS50 itself. See loudspeaker instructions for more information.

**CLEANING**

Before cleaning the unit, switch off power at the mains switch and remove the mains plug from the wall socket.

Clean the cabinet and remote control unit using a moist cloth. We do not advise using solvents, white spirit or thinners as they could damage the surface finish.

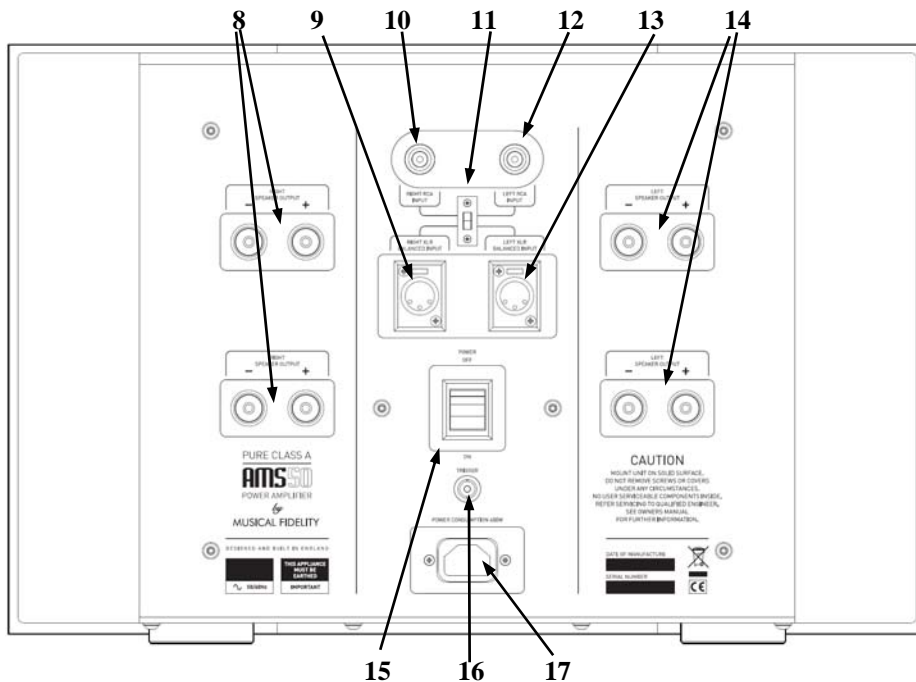
## FRONT PANEL



- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. <b>LEFT CHANNEL</b> Mains LED</li> <li>2. <b>LEFT CHANNEL</b> Operate LED</li> <li>3. <b>LEFT CHANNEL</b> Temperature LED</li> <li>4. <b>POWER</b> Switch</li> </ol> | <ol style="list-style-type: none"> <li>5. <b>RIGHT CHANNEL</b> Temperature LED</li> <li>6. <b>RIGHT CHANNEL</b> Operate LED</li> <li>7. <b>RIGHT CHANNEL</b> Mains LED</li> </ol> |
|--|---|

## BACK PANEL

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>8. <b>DUAL RIGHT SPEAKER</b> Output binding posts</li> <li>9. <b>RIGHT XLR</b> Balanced input socket</li> <li>10. <b>RIGHT RCA</b> Input socket</li> <li>11. <b>XLR/RCA</b> Input selector switch</li> </ol> | <ol style="list-style-type: none"> <li>12. <b>LEFT RCA</b> Input socket</li> <li>13. <b>LEFT XLR</b> Balanced input socket</li> <li>14. <b>DUAL LEFT SPEAKER</b> Output 4mm binding posts</li> </ol> |
|---|--|



- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>15. <b>MAINS ON/OFF</b> switch</li> <li>16. <b>TRIGGER</b> input 3.5mm jack</li> </ol> | <ol style="list-style-type: none"> <li>17. <b>MAINS INLET</b> IEC socket</li> </ol> |
|---|---|

### **POWER ON**

Once all connections are made, switch on the unit, using the ON/OFF rocker switch on the back panel. On the front panel of the AMS50 the front **MAINS** LEDs glow to indicate mains is present.

To switch the unit on use front panel button, press once and the operate LEDs will light (and mains LEDs extinguish), indicating the unit is ready for use.

Alternatively, using the **TRIGGER** input, switch on the triggering unit (preamp, Home Theatre processor, etc) and the AMS50 will come on automatically.

### **OVERHEAT**

Should any internal overheat situation have been reached, the amplifier will cut out, there will be no more sound output, and the orange LED will light.

Unit will remain in this state until it has cooled down again. If overheat mode persists, check wiring for errors, and locate unit where it can cool down more easily.



Basic problem-solving with an amplifier is similar to troubleshooting other electrical or electronic equipment. Always check the most obvious possible causes first, such as the following examples:

Problem	Probable Cause	Remedy
No power when <b>POWER</b> switched turned on	Mains power plug is not fully inserted into rear socket No mains power	Plug in securely Check socket with another appliance
Unit not coming on via TRIGGER input	Mains power not present Trigger lead disconnected Triggering unit not sending trigger signal	Check unit is plugged in and switched on (back panel switch). Check lead is fully connected and triggering unit is on and sending a trigger signal ( $\pm 5$ to 12V nominal)
Noisy or reduced sound	Wrong input selected Both RCA and XLR inputs connected to source(s)	Move RCA/XLR switch to correct position Remove unwanted source.
Sound is not precise, lacking in bass and stereo image (when used in conjunction with other unit(s))	Speakers are connected out of phase, i.e., connections to one speaker (+ and -) are reversed on one or more units	Ensure speakers are connected correctly: + terminal on amplifier goes to + terminal on speaker, - terminal on amplifier goes to - terminal on speaker. Note: Most cables have polarity markings to help get this right.
Unit cuts out, orange LED lit	Overheating	Make sure unit is situated to allow free air circulation. Allow to cool down before attempting to switch on again
Flashing RED LED	Short circuit in speaker (output) leads  Problem in speakers Grounded via speaker	Check speaker leads connected to SPEAKER OUTs on AMS50 <i>and</i> speaker ends for stray strands or short circuits. Check speakers and wiring. Wait 30 seconds before switching back on, and apply music source. Both the + and - speaker output terminals on this unit are "hot". Some speakers e.g. active subs and electrostatics have "grounded" inputs. Such speakers are incompatible with the AMS50.
Hum	Audio connector plug not fully pushed in Input not correctly selected Cable Fault Unsuitable Cable (e.g. cable grounds not connected)	Insert plug securely Move input switch to correct position Check cable is connected at both ends. N.B. some esoteric cables have internal wiring intentionally disconnected/modified. For best results on all inputs, please use good quality straight- through cables, signal lead(s) directly connected at both ends and earth/screen(s) directly connected at both ends.

If none of these actions affect a cure, please contact your dealer, or an authorised Musical Fidelity service agent. Remember; never open the case of the AMS50 yourself, as this will invalidate the guarantee.



Output: Power 50 Watts per channel into 8 Ohms (17dBW),  
 100 Watts per channel into 4 Ohms  
 Voltage, RMS 20 Volts 20Hz to 20 kHz  
 Voltage, Peak-to-peak 58 Volts  
 Current peak-to-peak 100 Amps  
 Damping factor 190  
 Output devices 12 per channel  
 Thermal cut out (internal temp) 70°C

Balanced Line input:  
 THD + noise, 20Hz to 20 kHz < 0.006% unwt'd.  
 Signal to noise ratio > 110dB 'A'-weighted  
 Input sensitivity for 50 Watts 650mV  
 Input impedance 50k Ohms  
 Frequency response 10Hz to 40 kHz, +0, -0.4dB

Connections:  
 Line level inputs 1 pair line level XLR (balanced) connectors  
 1 pair line level RCA connectors  
 Speaker outputs 4 pair 4mm banana plug/binding posts  
 Trigger input 3.5mm/1/8" mono jack socket  
 Trigger level ±5V to ±12V

Power requirement:  
 Mains voltages: 115/230VAC 50/60Hz (factory pre-set)  
 100VAC 50/60Hz (alternative)  
 Consumption: 600 Watts maximum into 8 Ohms  
 14 Watts idle (mains LEDs lit)

Weight: 60 kg 132 lbs unit only, unboxed  
 65 kg 143 lbs in shipping carton

Dimensions: 483 mm 19 inches wide  
 325 mm 12¾ inches high including feet  
 460 mm 18¼ inches deep (front to back) including terminals

Standard accessories: IEC type mains lead (10-Amp type),



Musical Fidelity reserves the right to make improvements which may result in specification or feature changes without notice.

<b>RELEASE</b>	<b>DATE</b>	<b>CHANGES</b>
Issue 1	28 <sup>th</sup> May 2009-05-28	1 <sup>st</sup> issue