

STOP !!

Use presigned Page 1

*Print flowcharts from
h:/documents/hand-
books/meflow.pdf*

SAFETY FOR YOU AND YOUR SYSTEM

N

- * The ME 850 power amplifier is not user serviceable.
- * Do not under any circumstances remove the top cover of the ME 850 while it is connected to a power point, even if the switch at the power point is turned off.
- * Although it is unlikely that minor liquid spills will enter amplifier chassis, the possibility should be avoided. Damage from foreign substances is not covered under our generous warranty scheme.
- * Use only the fuses specified by ME in your ME 850. Fuses of a different rating may create a fire hazard and void your warranty ...
240V ... 4 amp slow blow M205 fuse recommended (5 amp maximum)
120V ... 8 amp slow blow M205 fuse. {See warranty conditions 1(c)}
- * Do not switch your amplifier on or off without first turning the gain control to minimum. Damage to your speakers could result.

MAKING THE CONNECTIONS

If you are in a hurry to get your ME amplifiers operating and your dealer has not installed the system for you (you live too far off the beaten track or the dealer is not doing his job, or you know more than the dealer) a step by step installation guide follows.

We do strongly advise that all the recommendations in this owners book are understood before proceeding.

1. Do not make any connections until the ME 850 is disconnected from the power point.
2. Connect speaker cables to the terminals on the rear of the ME 850 making sure that the terminals are clean and that the connections are made as securely as possible. (Correct connections are vital for safe ME 850 operation).
3. Connect the preamplifier to the ME 850 with suitable quality RCA to XLR interconnects. Secure fitting plugs are essential.
4. Connect a wire between the yellow terminal of your ME preamplifier and the ME 850. Any wire will suffice (half of cheap figure 8 lamp cord) as only a minuscule signal is transmitted by this wire.

MAKING THE CONNECTIONS.. *continued*

5. Connect your signal sources to the preamplifier (Turntable, CD, Tuner etc.)
6. Connect the Remote Power supply to the preamplifier using the DIN to DIN lead supplied.
7. Check that:
 - a) the preamplifier gain is set to minimum.
 - b) all wiring to the speakers is secure and safe.
 - c) preamplifier power switch is off (up)
8. Plug the remote power supply into the mains outlet first. Then the ME 850.
9. Check that two LED's light on the front panel of the ME 850 - a green "operate temp" and red "standby" led. The "operate temp" led will extinguish after a test cycle time of approximately 3 minutes. During that time the fans and control module will test themselves and be ready for normal operation at the end of 3 minutes. **You can, however, turn the preamplifier on immediately and the "operate temp" will stay on, even though the amplifier is not actually at its operating temperature.**
10. Turn the preamplifier on and the ME 850's "**standby**" LED will extinguish and the green "**on**" LED will light after about 5 seconds, signifying that power is applied to main amplifier circuitry and sound is possible. If there is a problem that the control module senses and decides could be damaging to your speakers, the red '**standby**' LED will relight and the "**on**" LED will extinguish.

Should this occur investigate the reason and if a logical reason is found, reset the protection system by switching mains outlet off for at least 5 seconds and then turn the amplifier on again. If you cannot fathom the reason for the problem consult the article - PROBLEM SOLVING at the end of this manual, or consult your dealer .

IT IS DANGEROUS TO YOUR SPEAKERS AND POSSIBLY YOUR ME 850 TO CONTINUE TO TRIGGER THE PROTECTION SYSTEM - IT IS A WARNING THAT SOMETHING IS SERIOUSLY WRONG.

WARNING

L

INSTALLATION CONSIDERATIONS

Since the ME 850 is fan cooled, several amplifiers can be stacked and it can be placed inside an enclosed cabinet (as long as there is a rear ventilation exit for hot air).

The amplifier draws air in through removable (and cleanable - in water) filters which are fitted on the front of the chassis.

Warm air is expelled via a vent on the rear panel of the amplifier and if mounted in a cabinet, choose a position (shelf) where an opening allows the air to escape.

If other equipment and / or records, CDs, tapes are in the same cabinet the cooling affect can be very significant, and may prolong the life of these other items.

Also, the amplifier can be positioned in any angle, as the cooling system is not convection dependant. The ME 850 can be laid on its back, side, front etc as long as air can enter the unit and escape freely.

The filters are removed by depressing the outside lower corner of each front grill, and then grasping the top inside corner as it tilts forward. The grill is then easy to remove as it is only held in place by a magnet. The foam filter elements are bonded to the mesh and should be washed in water by holding under cold tap with gentle flow, otherwise the foam may become dislodged.

The filter is then refitted (when dry) by inserting grille into slot under handle and allowing magnet to attract the other edge of grill near the power switch.

It is suggested that the ME 850 is positioned between the loudspeakers to minimise speaker cable losses, and allow the ME design advantages of driver control and crossover damping to be effective. A separate paper detailing power amplifier / speaker considerations will be written and published. If required please enquire from ME or your dealer.

Input wiring is an important consideration for quality of sound as well as correct operation of the ME 850. Firstly the earth connection of each RCA connector is of paramount importance and a secure fitting earth for each RCA plug to the earth of the input socket on the ME 850 as well as the preamplifier output sockets is essential. The quality of wire for the interconnection is more important as the quality and resolution capability of the other components in the system increase. The design of ME preamplifiers have the ability to diminish the differences between esoteric cables by improving the performance of cheaper cables.

If using the ME 850 with a pre amplifier other than an ME, a significant loss in performance is possible, due to the input impedance of the ME 850 being lower than expected- 1,000 ohms rather than 50,000 ohms. ME preamplifiers have an output impedance of 2 ohms (open loop), cheaper components may be 470 ohms or more, which would be unsuitable. (Valve preamplifiers can have output impedances of 5000 ohms, and we suggest having your dealer adjust the ME 850 to suit, if such preamplifiers are to used with your ME amplifier)

To enable remote power control of the ME 850, a wire of any size (thin insulated wire is desirable) should be connected between the yellow terminals of the ME 850 and ME preamplifier. Several ME power amplifiers may be controlled by one preamplifier.

The ME Preamplifier power switch has priority **if the remote wire is connected**, and the power switch on the ME 850 is ignored.

When power is first applied to the ME 850 a test sequence is initiated which tests the fans and CONTROL MODULE. The orange '**standby**' and the green '**operate temp**' indicators will light indicating that power is available and the full fan speed can be heard. After test period of 3 - 5 minutes the fan will stop and the '**operate temp**' LED will extinguish. The ME 850 is now ready for normal use.

OPERATION AND INDICATOR LIGHTS

When the ME preamplifier power switch is actuated the orange '**standby**' LED will extinguish, and then in approximately 5 seconds the green '**on**' LED will light, indicating the amplifier is powered and operational. Depending on ambient temperature, volume level and load characteristics(speaker) the amplifier will warm up to operating temperature usually in less than 15 minutes, and to signify that condition the '**operate temp**' LED will light. Within 3 minutes of turn on the ME 850 will have attained at least 95% of its' sound quality.

When the ME 850 is turned off the '**standby**' LED will light and the '**operate temp**' LED will remain alight. The ME 850 will then go through a cool down cycle, which may last up to 5 minutes. **It is important that this cool down cycle is allowed to be completed before the power is disconnected from the unit.**

OPERATION AND INDICATOR LIGHTS .. *continued*

It is normal for the amplifier to sound distorted after it has been turned off, as the capacitor storage matrices discharge.

Should the ME 850 be subjected to extreme conditions which lead to over heating the '**over temp**' cut-out LED will light and the '**on**' LED will extinguish - this signifies that the ME 850 is temporarily turned off and will go through a cool down cycle and then return to normal operation. If this should occur investigate the reason - check for adequate air flow around filter, check filter foam for contamination and clean in water if necessary.

Do not operate ME 850 without the filter or top cover.

IMPORTANT

If the amplifier has been subjected to unmusical material the protection system may have been triggered and in that case the red 'standby' led will stay on regardless of your attempts to turn it on, and can only be reset by switching mains power off at the power outlet for at least 5 seconds; the ME 850 will then go through its test sequence.

PROBLEM SOLVING

GENERAL

ME Power Amplifiers are very different from other Commercial Amplifier designs.

* First - they are capable of very high continuous output currents, which is desirable for the ultimate extraction of your Loudspeakers capabilities, but it also has the potential to cause serious damage to Loudspeakers.

* Second - they are non inverting (0 degree) wide band width, and consequently able to articulate very fast short duration transients that would ordinarily escape more conventional amplifier designs. hird - In order to minimise all forms of transmission losses in the signal (music) path no Fuses, Relays, Inductors or Circuit Breakers are used. The output of the amplifier circuit is connected to the Speaker terminals directly via short, very high Current wire.

For the safety of your loudspeakers a very sophisticated protection system was designed and is the heart of the CONTROL MODULE.

The "Control Module" is the intelligence of your amplifier:

- 1) It maintains a constant operating temperature by counting the revolutions of the cooling fans and comparing that to the transistors' temperature - making infinitely small adjustments when necessary.
- 2) It samples the output and determines its suitability for your loudspeaker and turns the amplifier off if a dangerous condition is sensed.
- 3) It sets the sequencing of turning "On and Off" so that clicks, pops or thumps are not produced.
- 4) It turns the amplifier if it exceeds a dangerous operating temperature.

The proceeding has outlined some by differences between ME Amplifiers and others. Instances where these create installation problems, you can be confident that once these are resolved, better performance will be obtained, not only to the credit of ME Amplifiers, but because the system configuration has been optimised.

The ability of ME amplifiers to articulate extremely fine signals accurately has in many cases reflected badly on the sound of ME. The fact is, if a poor quality, or poorly adjusted input source is used (CD, turntable, etc,) its character WILL be exposed.

NOTE: Expensive equipment does not always sound better. Better equipment exposes greater contrasts in recording quality.

Refer also to Preamplifier Manual "Optimising Performance".

PACKAGING AND SHIPPING

IMPORTANT

Your ME 850 is strongly constructed. However correct packaging procedure is of ultimate importance. When shipping the amplifier the timber packing case must be used and all foam pieces arranged in its original configuration. If the amplifier is shipped with any possibility of movement within the case, the case will burst on mishandling or abuse during shipping, with resultant damage to the external chassis components.

Damage to these external items cannot be covered by any warranty and are expensive to replace as they are anodised and machined in matched sets to ensure anodising colour and consistency, and therefore care should be exercised to avoid this unnecessary cost.

WARRANTY CONDITIONS

ME SOUND PTY LTD has a warranty system which covers component defects and faulty workmanship for a period of up to 6 years from the date of despatch from the factory.

This warranty must necessarily involve your ME dealer, particularly in Australia, where consumer laws dictate that warranties are provided by the seller to the buyer. No express warranty is provided by the Manufacturer to the end user, however ME Sound Pty Ltd provides a warranty to your ME dealer. ¹

ME Sound Pty Ltd offers a specific, independent warranty between ME Sound Pty Ltd and you, the end user, by the adoption of an ME warranty registration system, where you can register with ME Sound directly,² thereby securing a separate and independent warranty in the event that:

- a) *your ME dealer ceases trading*
- b) *you move to an address too remote to be serviced by the original ME dealer, in which case you can send your amplifier directly to ME Sound for warranty service.*
- c) *you have a disagreement with your ME dealer, and prefer not to send your amplifier to him for service.*

To register for the ME independent warranty² fill out and return the enclosed warranty registration form. Enclose a copy of your purchase receipt or invoice showing the purchase of your amplifier. If this form is received by ME Sound Pty Ltd within 30 days of

purchase, your ME independent warranty will be in force for five years ³ from the date of purchase. An acknowledgment letter will be sent to you by mail at the address indicated on your warranty registration form.

Please make a note that if you do not receive an acknowledgment letter, within three weeks, that we have not received your warranty registration form or our acknowledgment letter to you is lost. This is an important letter as it is proof of your independent warranty. Contact us to protect your entitlement.

Under this independent warranty your amplifier is covered for all component parts found to be defective, factory labour, and return freight to your dealer for a total of five years. (Or six years from date of despatch from our factory which ever is shorter) [Professional use - 1 year or 2 years from date of despatch from our factory.]

If during the first 30 days the amplifier has a fault which cannot be rectified by the dealer within 5 working days, (subject to stock availability) the amplifier will be replaced at no charge, with a new unit (provided the amplifier is undamaged and all packaging and accessories are returned to the dealer).

Warranty claims should initially be addressed to the dealer from whom the unit was purchased.

1) This warranty does not cover damage as a result of:

- a) Fire
- b) Flood (including - ingress of liquids etc.)
- c) Electrical surges/transients (e.g.. Lightning) and consumables (eg fuses, surge limiters, etc)
- d) Structural damage - from physical abuse and or effects from being dropped in shipping etc.
- e) Abuse, neglect or accidental damage.
- f) Normal wear and tear.

Warranty is voided if the unit has been modified, repaired or tampered with, in any way, without written authorisation from ME Sound Pty Ltd. Unauthorised modifications by dealers and those not performed in accordance with instructions from ME Sound Pty Ltd will also void any responsibility of ME Sound Pty Ltd to honour the independent warranty.

WARRANTY CONDITIONS .. continued

2) While every effort has been made, in the design of ME Amplifiers, to reduce the possibility of damage occurring to other Audio components, (Speakers etc), the warranty only covers ME products and no other implied warranty of any kind is offered.

3) In general, liberal concessions in your favour are given in all warranty matters however ME Sound Pty Ltd retains the right of judgement of whether the unit will be covered under its independent warranty, except where local consumer laws conflict.

Notes:

1) Authorised ME dealers only. If you purchase an ME amplifier from a non authorised dealer, no warranty arrangements or responsibilities exist between them and ME Sound Pty Ltd. You can verify Authorised status by their Authorised ME Distributor sign, or by checking with ME Sound Pty Ltd.

2) The ME Sound Pty Ltd independent warranty is only available when the Amplifier is purchased from an Authorised ME dealer. If purchased from elsewhere, you will be dealing with that company or individual regarding warranty, and so it is advisable to get in writing any offers or warranties from them directly.

3) A maximum of 5 Years warranty is offered by ME Sound Pty Ltd under its independent warranty scheme, provided the Amplifier was shipped from ME Sound Pty Ltd within 1 year of your purchase. Old or demonstration stock held by dealers (more than 1 year old) will have a diminished warranty period, and this will be stated in the confirmation letter that you receive from ME Sound Pty Ltd.