



ME580 STEREO AMPLIFIER



OWNER'S MANUAL

	Page No.
GETTING TO KNOW YOUR ME580	
Safety First	1
Quick Start Connection Guide	1
INSTALLING YOUR ME580	
Speaker Cabling	4
Input Leads (Interconnects)	4
Ventilation	4
Mains Power Connection	5
UNDERSTANDING YOUR ME580	
General Description	6
Microcontroller Monitoring and Control	6
1. Power Up / Power Down Control	6
2. Temperature Monitoring	6
3. DC Offset Monitoring	7
4. Voltage Limiting / DC Monitoring	7
5. High Level High Frequency Output Monitoring	7
6. Output Status Indication	7
7. Amplifier Operating Status Indication	7
8. Control of Brightness of the Operating Status Light	7
9. Control of Brightness of the Standby Status Light	8
10. Remote Startup and Shutdown	8
Protection System Operation	8
1. Abnormal Conditions	8
2. Fault Detection and FAULT (Output Status) Light	9
3. Restarting the ME580 After Fault Detection	9
4. Over-Temperature Detection	9
5. Over-Temperature Shutdown	10
6. Restarting the ME580 After Over-Temperature Shutdown	10
7. Mains Fuse	10
8. Mains Fuse Replacement	10

CONTENTS

	Page No.
<i>UNDERSTANDING YOUR ME580 (Cont'd)</i>	
High Capacitance Option	10
Bridge Mode – Higher Volume	12
Dual Amplification – Higher Quality Sound	13
<i>GENERAL INFORMATION</i>	
Why Your ME Amplifier Is Different	14
<i>PACKAGING AND SHIPPING</i>	15
<i>WARRANTY CONDITIONS</i>	16
<i>TROUBLESHOOTING</i>	
Faulty or Distorted Sound	18
No Sound (Both Channels)	19
Hum or Buzz Problems	20
<i>SPECIFICATIONS</i>	21
<i>ME580 / ME550-II SIMILARITIES AND DIFFERENCES</i>	22
<i>IMPROVEMENTS OVER ME550 Series II</i>	23
<i>CONTACT US</i>	24

SAFETY FIRST

There are no user serviceable components inside your ME580 Power Amplifier. Do not under any circumstances remove the top or bottom cover of the ME580 amplifier whilst it is connected to a power point, even if the switch at the power point is turned off.

Never allow moisture or liquids of any kind to enter the power amplifier chassis (condensation, drinks, etc.)

Use only the fuses specified by ME Amplifiers in your ME580 Power Amplifier. Fuses of a different rating may not protect your amplifier, and may create a fire hazard.

Do not switch on your power amplifier without first turning the gain control on any connected preamplifier to a minimum.

Do not disconnect any leads from the amplifier until it has been switched off and is completely discharged. (Allow 1 minute from switch off for the amplifier to discharge.)

Your ME580 Power Amplifier must only be used with a **3 pin EARTHED** mains cable. Such a cable is supplied with the amplifier.

QUICK START CONNECTION GUIDE

If you are in a hurry to get your ME580 power amplifier operating, and it has not been installed by your ME dealer or other knowledgeable person, please follow the procedure set out below. We do recommend strongly however that you read the complete instructions in this handbook first.

1. Do not make any electrical connections unless the amplifier is disconnected from the mains power.
2. Make the connections to your program source (preamplifier, CD player with variable output, etc.) as follows:
 - Use the DC Coupled inputs if you are connecting to an ME preamplifier or other DC Servo Controlled preamplifier.
 - Use the AC Coupled inputs if using CD players directly, passive preamps, tube (valve) preamps, surround sound receivers, etc. If in any doubt read "Understanding your ME580 – DC Offsets", consult your dealer, or just use the AC inputs – as that is the safest for your speakers.
 - The unbalanced inputs require leads (interconnects) fitted with RCA plugs.
 - The balanced inputs require leads (interconnects) fitted with XLR plugs.

If using unbalanced RCA inputs be sure to set the Balanced / Unbalanced input selector switch on the rear panel of the ME580 to Unbalanced and to Balanced when using balanced XLR inputs.

3. Connect your Speaker Cables securely to your Speaker System, ensuring that a short circuit is not possible, even if speakers are later moved or repositioned. Shorted cables can lead to amplifier damage, and can void your warranty.

CAUTION: Your ME580 Power Amplifier is designed to operate with loudspeakers with impedance in the range 4 – 8 ohms. Operation with loudspeakers of less than 4 ohms nominal impedance is not recommended.

4. Connect the Speaker Cables to the terminals on the back of the ME580 power amplifier, preferably using high quality banana plugs. Alternatively, if banana plugs are not available, the ends of the

GETTING TO KNOW YOUR ME580

Speaker Cables may be bared and twisted, then inserted into the holes in the sides of the terminals before tightly screwing down the terminal covers. If using this method, make certain that all bare wire strands of the Speaker Cables are contained within the terminals, as even one stray strand of wire could cause a short circuit between a Speaker Cable and the chassis of the amplifier. Also verify that none of the Speaker Cables can make electrical contact at any point with the chassis of the ME580 or any other chassis (e.g. CD player chassis). Also ensure that a short circuit between the red (+) and black (-) terminals of either channel cannot occur. Finally, check that you have connected the speakers to the amplifier with the same polarity on both channels, i.e. ensure that the wires from the red (+) terminals on each channel of the ME580 go to the corresponding (red or +) terminals on both left and right speakers. If the speaker wires are connected the opposite way round on one speaker compared to the other, the speakers will be “out of phase” resulting in a loss of stereo image.

5. Connect the ME580 to a power point and switch the power point ON. The ME580 will then perform a one minute initial power up self test, as detailed below. During the self test the ME580 amplifier cannot be switched on; i.e. pressing the POWER pushbutton will have no effect.

Initial Power Application Self Test

- The ME logo on the front panel escutcheon will be illuminated in Mauve light, the Temperature Light labeled TEMP will be illuminated in Amber and the Status Light labeled FAULT will illuminate Red indicating that the amplifier has mains power applied to it, and the cooling fans will come on and be ramped up in speed to a maximum over a ten second period.
 - At the end of the ten second period the TEMP light and the FAULT light will turn off but the fans will continue to run at maximum speed for a further 40 seconds to allow verification of airflow from both heat sink air exhaust ports, and the ME logo will remain illuminated in Mauve light indicating that the amplifier is still in self test mode. After the 40 second airflow test time the fan speed will be ramped down to zero over a ten second period, and the ME logo will be illuminated in Amber light, indicating that the self test is complete and the amplifier is in Standby Mode.
6. Press the POWER button located in the centre of the front panel escutcheon. The illumination of the ME logo will change from Amber to Blue, indicating that the amplifier is ON, and is operational. Music reproduction will be possible now. For the first minute or so, the sound quality may be slightly reduced until the amplifier begins to warm up; this is normal, and generally more pronounced when very cold and less noticeable if the amplifier has been used within the last 30 minutes. After several minutes, the Green TEMP light on the front panel escutcheon will come on, indicating that the amplifier is operating within the normal temperature range. When this condition is reached, the sound quality will be at its best. The time taken for normal operating temperature to be reached will depend on ambient temperature and the volume setting, as well as the load impedance of the loudspeakers being used.

Please Note: The ME580 amplifier can only be switched on ONCE per minute. This means that if the amplifier has been switched on for less than one minute and is then switched off, it cannot be switched back on until the first minute has elapsed. If the amplifier has been ON for over one minute it can be switched OFF and immediately may be switched ON. This feature is to reduce stresses caused by repeated rapid cycling between OFF and ON. If the amplifier is switched OFF before one minute has

GETTING TO KNOW YOUR ME580

elapsed since it was switched ON, the Amber illumination of the ME logo will flash on and off until one minute has elapsed. When the flashing stops, the amplifier may be switched ON.

SPEAKER CABLING

It is always preferable to locate the amplifier as close as practicable to the speakers, and between them. Use speaker cables of good quality and adequate wire size (thickness) and preferably which have been designed for the purpose. Do not use hook up wire or light duty cable. Ensure that the cables are not excessively long, and are of the same length for each channel. It is preferable to use good quality banana plugs at each end of the speaker cables, ensuring that these are a good fit in the sockets on the rear panel of the ME580, and on the speakers. If connecting the cables without using banana plugs, ensure that the bared ends of the cables are twisted so that there are no loose strands, before inserting into the terminals and tightening firmly. Always check to ensure that there are no loose strands of wire outside the terminals, as they could contact the chassis of the ME580, resulting in a short circuit that could seriously damage your amplifier. Also ensure that the cables are located in such a way that they are not likely to be accidentally pulled out of the terminals on the speakers, or on the ME580. Damage may occur to your amplifier if this happens while the system is operating, particularly at higher volume levels.

SPEAKER IMPEDANCE

Your ME580 is designed for use with loudspeakers with impedance in the range 4 – 8 ohms. Use of some types of speakers with less than 4 ohms impedance may be possible, but is not recommended. This is because the ME580 is fitted with current limiting circuitry that is provided to protect the amplifier against serious internal damage that could otherwise occur when operating at high output levels with low impedance speakers. In such circumstances, if the current limiting circuitry comes into operation, degradation of the sound quality will begin to occur, possibly only at some frequencies, but in severe cases across a wide frequency range. If this situation does occur, it does not indicate a fault with the amplifier, and can be dealt with, at least in the short term, by reducing the volume setting on your preamplifier.

INPUT LEADS (INTERCONNECTS)

For the connection between your ME580 and the preamplifier, use a good quality audio type lead fitted with the correct type of plugs, depending on whether the balanced or unbalanced inputs are to be used. The unbalanced inputs require RCA type plugs, and the balanced inputs require XLR plugs.

VENTILATION

The amplifier may be positioned within a cabinet or entertainment rack, as long as the cooling air from the outlet air vents (located on each side of the ME580 towards the rear) is unobstructed. If it is installed within a cabinet of reduced ventilation, the fan speed will automatically increase to counteract the higher ambient temperature. Cooling air is drawn into the amplifier through an inlet grill with integral air filter, located underneath the amplifier at the centre near the front. Ensure that air flow through this grill is not restricted in any way, e.g. by placing objects under the ME580. Do not install the ME580 on a soft surface such as carpet, as the weight of the amplifier may cause the feet to sink into the surface and reduce the clearance under the air inlet grill, which will restrict airflow.

INSTALLING YOUR ME580

After prolonged use, particularly in dusty environments, the air filter should be removed by unclipping the grill, and washed carefully in warm soapy water, rinsed, and allowed to dry naturally before being reinstalled.

It is possible to stack ME580's one on top of the other, since one amplifier will not significantly increase the ambient or operating temperature of the other. The ME580 fitted with corner posts is designed to facilitate stacking.

MAINS POWER CONNECTION

It is beneficial to provide a low resistance connection for the ME580 to the mains power supply, because high peak currents are drawn by the amplifier to charge its capacitor banks. Therefore the ME580's performance can be affected by the quality of the mains wiring. The use of extension leads and power boards should be avoided where possible, or if they are necessary, the highest available current rating should be used.

GENERAL DESCRIPTION

The ME580 Power Amplifier is a nominal 100 watt per channel Stereo Amplifier, which may also be connected as a bridged Mono Amplifier for greater power output. Operation of the ME580 is controlled and monitored by a microcontroller. Unbalanced AC and DC Direct inputs are provided, as well as Balanced inputs. Selection of the Balanced or Unbalanced inputs is via a switch located on the rear panel.

In keeping with established ME design philosophy; overall negative feedback is not used, with the feedback being taken instead from the output of the voltage amplifier stage.

A DC servo is incorporated within the circuitry to ensure that there is no DC offset at the output if there is a small DC offset at the input when DC input coupling is used.

In addition a Load Compensation switch is provided on the rear panel which allows the user to select circuitry that ensures minimum distortion irrespective of the speaker load impedance.

The ME580 is equipped with two independently controlled variable speed cooling fans, one for each channel. The fans are mounted directly on the output transistor heat sinks to provide optimum cooling by forcing air directly through the cooling fins. This arrangement also provides a degree of acoustic filtering which reduces fan noise to very low levels. The fans are fitted with ceramic bearings, which help to reduce noise, and provide a very long service life.

The ME580 also has independent power supplies for each channel, which allows for greater capacity within the available space, as well as reducing the chance of transient peaks on one channel affecting the other channel. The power supply has a large capacitor bank fitted, which provides generous peak capacity to deal with short loud music passages, as well as providing excellent imaging and bass response. A high capacitance option can be specified, which increases the peak power handling capacity even further.

MICROCONTROLLER MONITORING AND CONTROL

The microcontroller in the ME580 performs a range of monitoring and control functions to optimize the operation of the amplifier, as well as providing several convenience features, which are described below:

1. Power Up / Power Down Control

Power Up and Power Down are controlled by the microcontroller to reduce surges and possible speaker "thump" when switching the amplifier on or off.

2. Temperature Monitoring

Continuous independent monitoring of the operating temperature of each output channel and a further internal temperature sensor is provided. The microcontroller controls the independent variable speed cooling fans for each channel, to ensure optimum cooling under all operating conditions. In the event of an over-temperature condition being detected from any of the three temperature sensors, the microcontroller will shut down the amplifier and run the fans at maximum speed to clear the over-temperature condition. The status of the temperature monitoring feature is indicated by the TEMP light on the front panel escutcheon, as follows:

OFF	-	Amplifier below normal Operating Temperature.
GREEN	-	Amplifier within normal Operating Temperature range.
AMBER	-	Amplifier within 5°C of Over-Temperature Shutdown.
RED	-	Amplifier Over-Temperature Shutdown.

Note: The fans will continue to run after the amplifier is turned off until the ME580 is below 38°C.

3. DC Offset Monitoring

Each amplifier output channel is continuously monitored for DC offset to eliminate the possibility of speaker damage due to DC currents. On power up, the outputs remain disconnected from the speakers until there is no DC offset present. During normal operation, the amplifier will shut down if DC is detected on any output.

4. Voltage Limiting / DC Monitoring

Each amplifier output channel is continuously monitored for voltage limiting of the output signal, which can occur when momentary high amplitude peaks of the input signal cause the amplifier to exceed the limit of its undistorted output capability. If voltage limiting is sustained for more than a very brief period, the distortion will be audible. The monitoring circuit can also detect 'clicks' or brief DC events in the output. The amplifier will shut down if sustained voltage limiting or DC is detected.

5. High Level High Frequency Output Monitoring

Each amplifier output channel is continuously monitored for excessive high frequency output, and if detected the amplifier will be shutdown to protect the loudspeakers.

6. Output Status Indication

A Multifunction Status light on the front panel escutcheon, labeled "FAULT" indicates the status of the output monitoring circuitry as follows:

- OFF - Amplifier operating normally
- RED (steady) - Amplifier shutdown, due to either DC offset, sustained Voltage Limiting or excessive High Frequency output.
- RED (pulse or flash) - Momentary Voltage Limiting or DC Event detected on output.

Note: If the STATUS light pulses or flashes repeatedly, the volume setting on the preamplifier should be reduced to a point where the pulsing or flashing stops. Depending on the recording level of the particular program material (e.g. CD) being played, different volume settings may be needed to prevent voltage limiting,

7. Amplifier Operating Status Indication

A status light located behind the ME logo on the front panel escutcheon indicates the operating status of the amplifier, as follows:

- AMBER (steady) - Power available, amplifier is in Standby Mode.
- AMBER (flashing) - Power available, amplifier has been switched OFF less than one minute after being switched ON. Amplifier cannot be switched ON until flashing stops.
- BLUE - Amplifier is ON
- MAUVE - Initial Power up Self Test in progress.

8. Control of Brightness of the Operating Status Light

The brightness of the BLUE Operating Status Light located behind the ME logo on the front panel escutcheon may be varied to suit individual preference and ambient lighting conditions. To adjust the brightness, when switching ON the amplifier manually, press **and hold** the POWER button. After 2

UNDERSTANDING YOUR ME580

seconds the blue illumination of the ME logo will begin to change in brightness and will continuously cycle through the range from minimum to maximum brightness. When the desired brightness is reached, release the POWER button. This brightness setting will be stored and used each time the amplifier is turned on, until a new setting is chosen by repeating the process.

9. Control of Brightness of the Standby Status Light

The brightness of the AMBER Standby Status Light located behind the ME logo on the front panel escutcheon may be varied to suit individual preference and ambient lighting conditions. To adjust the brightness, when switching OFF the amplifier manually, press **and hold** the POWER button. After 2 seconds the amber illumination of the ME logo will begin to change in brightness and will continuously cycle through the range from minimum to maximum brightness. When the desired brightness is reached, release the POWER button. This brightness setting will be stored and used each time the amplifier is turned OFF, until a new setting is chosen by repeating the process.

10. Remote Start up and Shutdown

Monitoring of two remote startup and shutdown circuits is provided. The first monitored input is a DC input used to turn the amplifier on or off when an ME or other compatible pre-amplifier is turned on or off. This feature requires a connection from the pre-amplifier to the yellow REMOTE POWER CONTROL terminal on the rear panel of the ME580. The second monitored input is the audio input to the ME580, which turns the amplifier on when an audio signal is detected. If no audio input is detected for approximately 2 ½ minutes ($\pm \frac{1}{2}$ minute), the ME580 will turn off automatically, indicated by the ME logo changing from BLUE to AMBER. Automatic shutdown will only occur if the amplifier was turned on by the detection of an audio signal.

PROTECTION SYSTEM OPERATION

The ME580 protection system is elaborate, and will protect both your amplifier and your speakers from damage for a range of abnormal conditions that may occur with your system. The description that follows is intended for those users who wish to obtain a better understanding of the operation of the protection system, and the conditions that may lead to an automatic shutdown of the ME580.

Relays with 4 x 10A parallel sets of arc suppressed contacts are fitted between each amplifier output and its speaker terminals. These relays keep the speakers disconnected during amplifier start up, and disconnect the speakers prior to shut down, to prevent any 'clicks' or 'thumps' reaching the speakers.

The protection system of the ME580 disconnects the mains power applied to the amplifier circuitry, and disconnects the speakers, if it detects a hazardous condition that could cause damage to the ME580 or your speakers.

1. Abnormal Conditions

a) Excessive High Frequency on output

Excessive high frequency on output can be caused by factors such as incorrect installation, high FM volume level 'off Station noise', etc. This may also be triggered by excessive high frequency content in your music (synthesizer music is capable of this) which is considered by the ME580 as being not suitable

for normal speaker systems. One exception here is the BOSE 800/901 series, which do not have a tweeter (dedicated high frequency unit), and therefore may not need this form of protection. If you are using a speaker system of this kind, you may find that the ME580 will shut down periodically on high level passages of music. If this occurs, a modification is possible to make allowances for the high frequency boosting that the equalizer generates. Please see your Dealer regarding this modification, as disabling this feature will put normal speaker systems at risk. You should not attempt this modification yourself as your warranty may be voided.

b) DC Offsets

DC offsets can be the result of internal malfunctions of the ME580's circuitry, or DC voltages that have been fed to the inputs of the ME580, and are potentially dangerous to your loudspeakers. Loudspeakers cannot deal with significant DC voltages without damage.

c) Sustained Voltage Limiting

Voltage limiting of the output signal can occur when momentary high amplitude peaks of the input signal cause the amplifier to exceed the limit of its undistorted output capability. Voltage limiting that continues for more than a brief period can have a similar effect to that of a DC offset, and is therefore potentially dangerous to your loudspeakers. If voltage limiting is sustained for more than the predetermined time that is programmed into the protection system, the amplifier will shut down to protect your loudspeakers.

2. Fault Detection and FAULT (Output Status) Light

If any of the conditions outlined in 1 exists, the Red FAULT light on the front panel escutcheon of the ME580 will come on, and the amplifier will shut down, indicated by the ME logo changing from BLUE to AMBER.

3. Restarting the ME580 After Fault Detection

If the amplifier shuts down with the Red FAULT light ON, wait for at least 10 seconds, and then attempt to turn the amplifier on by pressing the POWER button. If the amplifier comes on, this indicates that shut down occurred because of excessive high frequency signal detection. If the amplifier does not come on when the POWER button is pressed, this indicates that shut down occurred because of a DC offset or a sustained voltage limiting condition. In this case, the amplifier must be reset by switching 'off' at the power point and waiting approximately 10 seconds before switching 'on' again. The amplifier will then perform the Initial Power Application Self Test (refer Page 2), after which it can be turned on by pressing the POWER button on the front panel.

4. Over-Temperature Detection

If the temperature of either of the two heatsinks inside the amplifier reaches 65°C, or the internal temperature of the amplifier reaches 65°C, the TEMP light on the front panel escutcheon changes from GREEN to AMBER, indicating that the ME580 is beginning to overheat. This is an abnormal condition, so it is recommended that the reason for the overheating is investigated at this stage, otherwise the amplifier will shutdown automatically if the temperature continues to rise and reaches the over-temperature limit. Overheating may be caused by a restriction or loss of cooling air flow, a fault within the ME580 or the installation, or a problem with the load that the ME580 is driving (e.g. a shorted speaker wire or faulty speaker system, speaker switching device etc.)

5. Over-Temperature Shutdown

If the temperature of either of the two heatsinks reaches 70°C, or the internal temperature of the amplifier reaches 70°C, the TEMP light on the front panel escutcheon changes from AMBER to RED, the speaker outputs are automatically disconnected, the ME logo changes from BLUE to AMBER, and the fans run at maximum speed until the over temperature situation clears. As normal operating temperature is being restored, the TEMP light will change from RED to AMBER and then back to GREEN. Always investigate the reason for an over-temperature condition occurring - see the section on Ventilation under Installing Your ME580.

6. Restarting the ME580 After Over-Temperature Shutdown

Following an Over-Temperature shutdown of the ME580, wait until the TEMP light has returned to AMBER or GREEN. The amplifier can then be restarted by pressing the POWER button on the front panel.

7. Mains Fuse

The mains fuse will blow if an electrical fault occurs in one of the dual power supplies of the ME580. The fuse may also blow due to fatigue after a long period of service, since large inrush currents pass through the fuse at switch-on. If the fuse blows, use only a fuse of the specified rating as a replacement. Using a fuse of a different rating may compromise the protection of your amplifier, and may void the warranty.

8. Mains Fuse Replacement

The mains fuse is located inside a removable fuse holder, indicated by a fuse symbol, on the mains input socket at the rear of the ME580. To check or replace the fuse, switch off the amplifier at the power point and unplug the mains lead from the mains input socket on the rear panel of the ME580. Using a small screwdriver or similar tool, carefully lever out the fuse holder from the socket and check the fuse. It is preferable to check continuity of the fuse with an Ohm meter if available, or by substituting a known good fuse. There may not be any visible signs of fuse failure, particularly with the delayed action fuse type as used in the ME580. If required, replace the fuse with one of the correct type and current rating, as listed below. A single spare fuse is located inside the fuse holder cover.

ME580 Fuse Rating: 3 amp delayed action (slow blow) M205 fuse.

Refit the fuse holder to the mains input socket, insert the mains plug, and switch on the amplifier at the power point. If the replacement fuse blows within a short time, a fault condition is indicated, rather than fatigue failure. Should this occur, contact your ME dealer and arrange for the amplifier to be checked and repaired as necessary.

HIGH CAPACITANCE OPTION

This option is suggested for larger speaker systems, and for those interested in improved performance, particularly when other high quality ancillary equipment is installed on the system. The larger storage capacity gives improved transient, bass and imaging performance because the power supply impedance is much lower, and the power supply voltage is far more stable. This option increases the total capacitance from 75,200µF to 169,200µF. The degree to which this improves your system performance is largely governed by the quality of the components in your system, as well as your perceptions and experiences. If you would like

UNDERSTANDING YOUR ME580

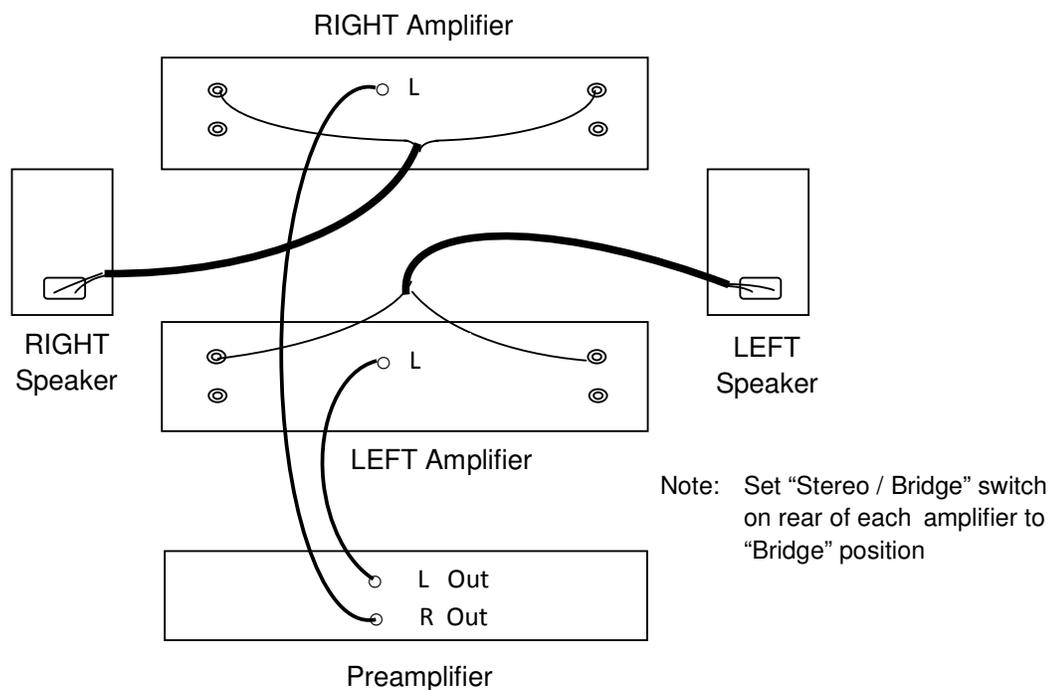
more practical and specific observations with components in your system, talk to your ME dealer who will have experienced the differences with the High Capacitance option fitted. As a general rule of thumb, Dynamic/Hybrid speaker systems which have one or more of the following will benefit most:

- a) Bass driver of 250mm dia. or larger;
- b) Impedance dips of lower than 5 ohms;
- c) Multiple bass drivers;
- d) Frequency response lower 3db point 40Hz or lower.

Pure Ribbon and Electrostatic speaker systems are too varied to generalize about, and hence, we suggest speaking to your ME dealer at any time after your initial purchase.

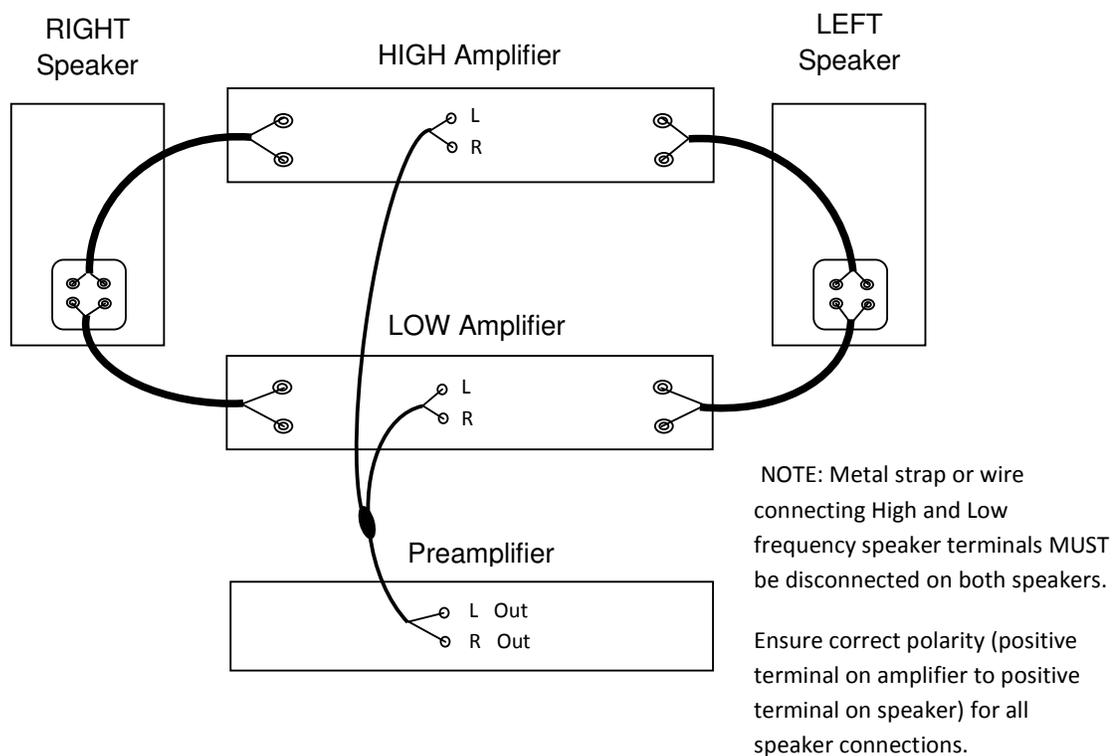
BRIDGE MODE – HIGHER VOLUME

This is an option if you require more power than the standard ME580 provides. This arrangement requires a pair of ME580 power amplifiers, with each one configured as a mono amplifier and connected as the amplifier for one channel of a stereo system. The total power capability is over 300 watts continuous per channel into an 8Ω load. A switch is provided on the rear panel of the ME580 to select either Stereo or Bridge Mode. If in any doubt about using Bridge Mode, you should consult your ME dealer who has the technical information to further explain the wiring method. In brief, once the switch is placed in the Bridge position, the Speaker cable is connected to the ME580 with the **positive** wire attached to the **red left speaker socket**, and the **negative** wire to the **red right speaker socket**. In Bridge Mode, only the Left Channel input is used.



DUAL AMPLIFICATION – HIGHER QUALITY SOUND

Dual Amplification is sometimes also referred to as Bi-Amplification, which would usually involve an electronic crossover before the power amplifiers. Dual Amplification does not use an external electronic crossover, but requires your Speakers to have a Bi-Wire set of terminals. These are two (or more) pairs of terminals, one set for High frequencies and one set for Low frequencies, which are usually connected together with a wire or metal strap. You should consult your Speaker manual very carefully, or speak to your ME dealer if there is any doubt about the suitability of your speakers to be run as Dual Amplified. Severe damage to your amplifiers can be the result if the wiring is not correct. A typical Dual Amplification connection is illustrated below.



WHY YOUR ME AMPLIFIER IS DIFFERENT

ME Amplifiers are very different from other Commercial Amplifier designs.

First – they are capable of very high continuous output currents. This enables your loudspeakers to perform to their ultimate capabilities.

Second – they are non-inverting (0 degrees) wide bandwidth designs, and consequently able to articulate very fast short duration transients that would ordinarily escape more conventional amplifiers.

Third – in order to minimize all forms of transmission losses in the signal (music) path, only short, high current connections are used.

For the safety of your loudspeakers a sophisticated microcontroller based protection system forms the heart and intelligence of your ME580.

The intelligence of the automatic protection system in your ME580:

- Maintains operating temperature within an optimum range by independently analyzing the temperature of each output heat sink and the interior of the case, and making small adjustments to the cooling fan speeds when necessary.
- Samples the output and determines its suitability for your loudspeakers and turns the amplifier off if a dangerous condition is sensed.
- Turns the amplifier off if it exceeds a dangerous operating temperature.

These are some of the differences between ME amplifiers and other amplifiers. Because of the sophisticated protection system in your ME580, some installation problems, such as inadequate ventilation, may be highlighted. 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 optimized.

Please refer to the problem solving flow charts at the end of this guide if you have any problems, before reporting the results to your dealer or ME Amplifiers.

The ability of ME amplifiers to articulate extremely fine signals accurately has in many cases been interpreted as a deficiency in the sound quality from the ME product. The fact is, if a poor quality input source is used (CD etc.) its character WILL be exposed because the ME amplifier will faithfully reproduce all its characteristics, both good and bad.

PACKAGING AND SHIPPING

Your ME580 is strongly constructed. However correct packaging procedure is of ultimate importance. When shipping the amplifier the packing carton should be used and all foam pieces arranged in its original configuration. The power cord should be removed and wrapped separately, otherwise scratching of panel surfaces may occur if these contact the chassis in transport. If the amplifier is shipped with any possibility of movement within the carton, the carton may burst on mishandling or abuse during shipping, with resultant damage to the external chassis components. Damage to these external items cannot be covered under the warranty, and they are expensive to replace as they are anodized or electroplated, and produced in matched sets to ensure anodizing/coating colour consistency and therefore care should be exercised to avoid this unnecessary cost. Please use the amplifier soft cloth cover to protect the ME580 from abrasion, whenever shipping, as even the polystyrene packaging blocks can mark the finish on your ME580.

WARRANTY CONDITIONS

ME Amplifiers has a warranty system which covers component defects and faulty workmanship for a period of 5 years from the date of original purchase.

Where your ME580 was purchased directly from ME Amplifiers, the warranty is provided directly to you by ME Amplifiers. When you purchase directly from ME Amplifiers, you will be automatically registered as the purchaser in the ME Amplifiers database, and no further registration by you will be necessary.

Where your ME580 was purchased new from an authorised ME Dealer, under consumer laws in Australia, a warranty is provided to you by the dealer, and ME Amplifiers provides a warranty to the dealer. However, ME Amplifiers will also provide warranty coverage directly to you, independent of the dealer, provided you are registered with ME Amplifiers as the purchaser. To register, fill out and return the enclosed warranty registration form to ME Amplifiers, together with a copy of your purchase receipt or invoice. If this form is received by ME Amplifiers within 30 days of purchase, your ME independent warranty will be in force for 5 years from the date of purchase. An acknowledgement letter will be sent to you by mail at the address indicated on your warranty registration form. This allows you the flexibility to deal directly with ME Amplifiers on warranty matters should you wish to do so. This may apply, for example, if you have moved to another location remote from the dealer, or the dealer has ceased trading. Please make a note that if you do not receive an acknowledgement letter within three weeks this means that we have not received your warranty registration form, or our acknowledgement letter to you is lost. This is an important letter as it is proof of your independent warranty. If you do not receive it, contact us to protect your entitlement.

If you purchased your ME580 second-hand, whether from another individual or from a dealer, less than five years from the date of original purchase, the unexpired term of the ME warranty is transferrable to you, provided that the date of the original purchase can be confirmed by ME Amplifiers. Before completing your purchase, it is advisable to check with ME Amplifiers whether the amplifier and its original purchase date are registered with ME Amplifiers.

Under this independent warranty your amplifier is covered for all component parts found to be defective, factory labour, and return freight to you or your dealer for a total of five years. [Professional use – 2 years from date of purchase.]

Please note the following:

1. This warranty does not cover damage as a result of:
 - a) Fire
 - b) Flood (including – ingress of liquids etc.)
 - c) Electrical surges or transients (e.g. Lightning)
 - d) Replacement of consumables (e.g. Fuses, surge limiters, etc)
 - e) Structural damage – from physical abuse and or effects from being dropped in shipping etc.
 - f) Abuse, neglect or accidental damage.
 - g) Normal wear and tear.

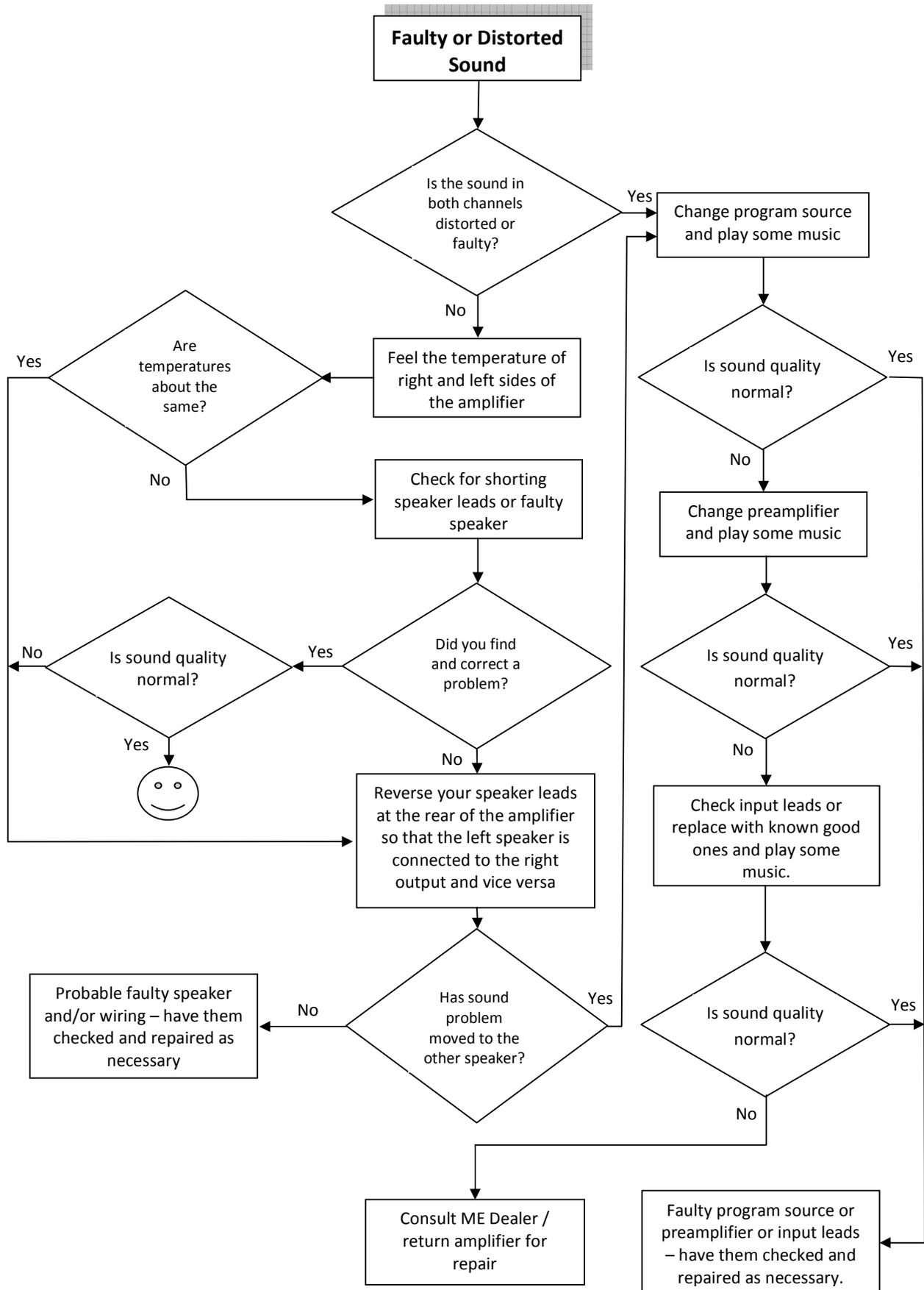
2. Your warranty is voided if the unit has been modified, repaired or tampered with, in any way, without written authorisation from ME Amplifiers. Unauthorised modifications by dealers, and those not performed in accordance with instructions from ME Amplifiers, will also void any responsibility of ME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

WARRANTY CONDITIONS

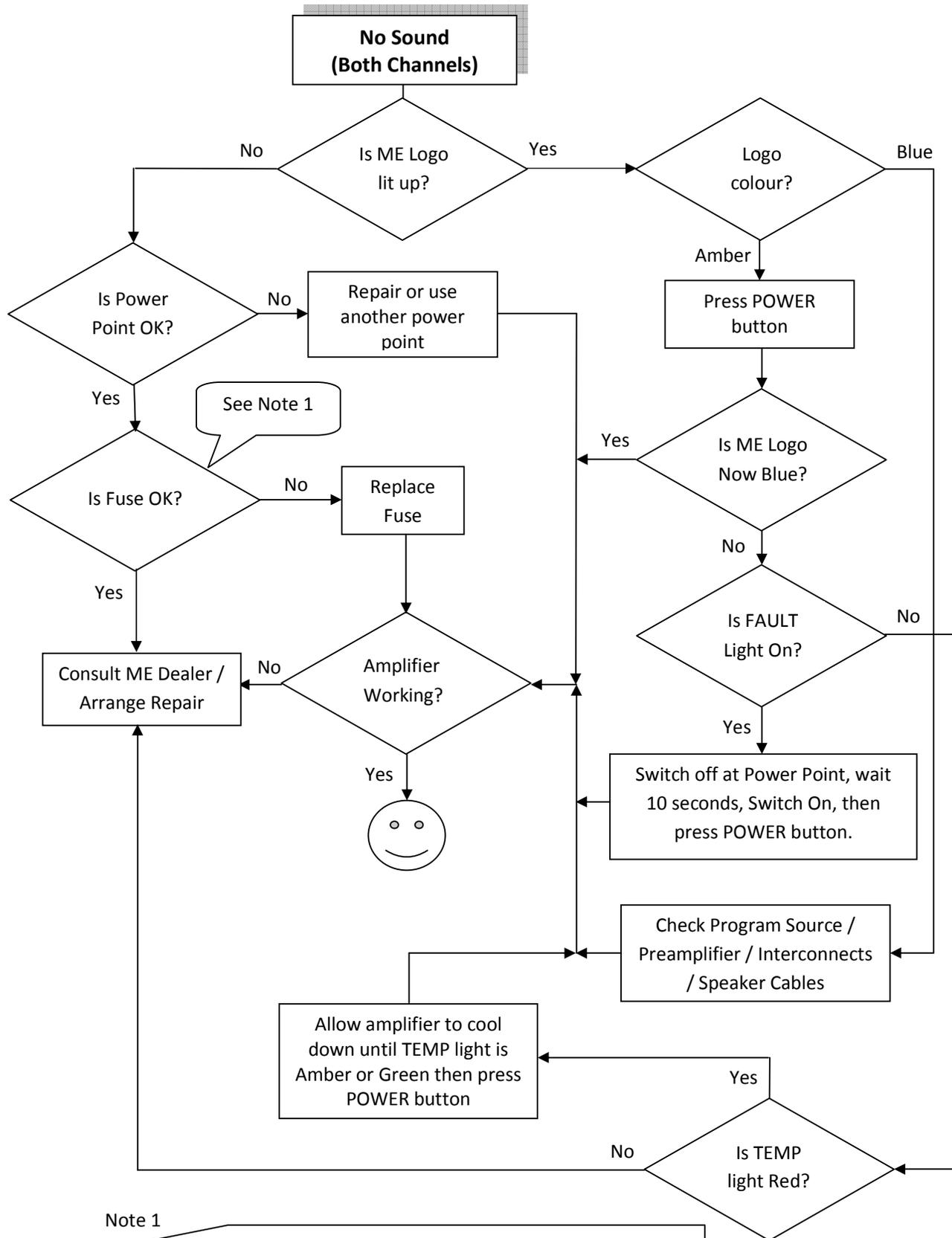
3. While every effort has been made in the design of ME Amplifiers, to reduce the possibility of damage occurring to other Audio components, (Speakers etc.), the warranty only covers ME products and no other implied warranty of any kind is offered.

4. In general, liberal concessions in your favour are given in all warranty matters. However ME Amplifiers retains the right of judgment of whether the unit will be covered under its independent warranty, except where local consumer laws conflict.

TROUBLESHOOTING

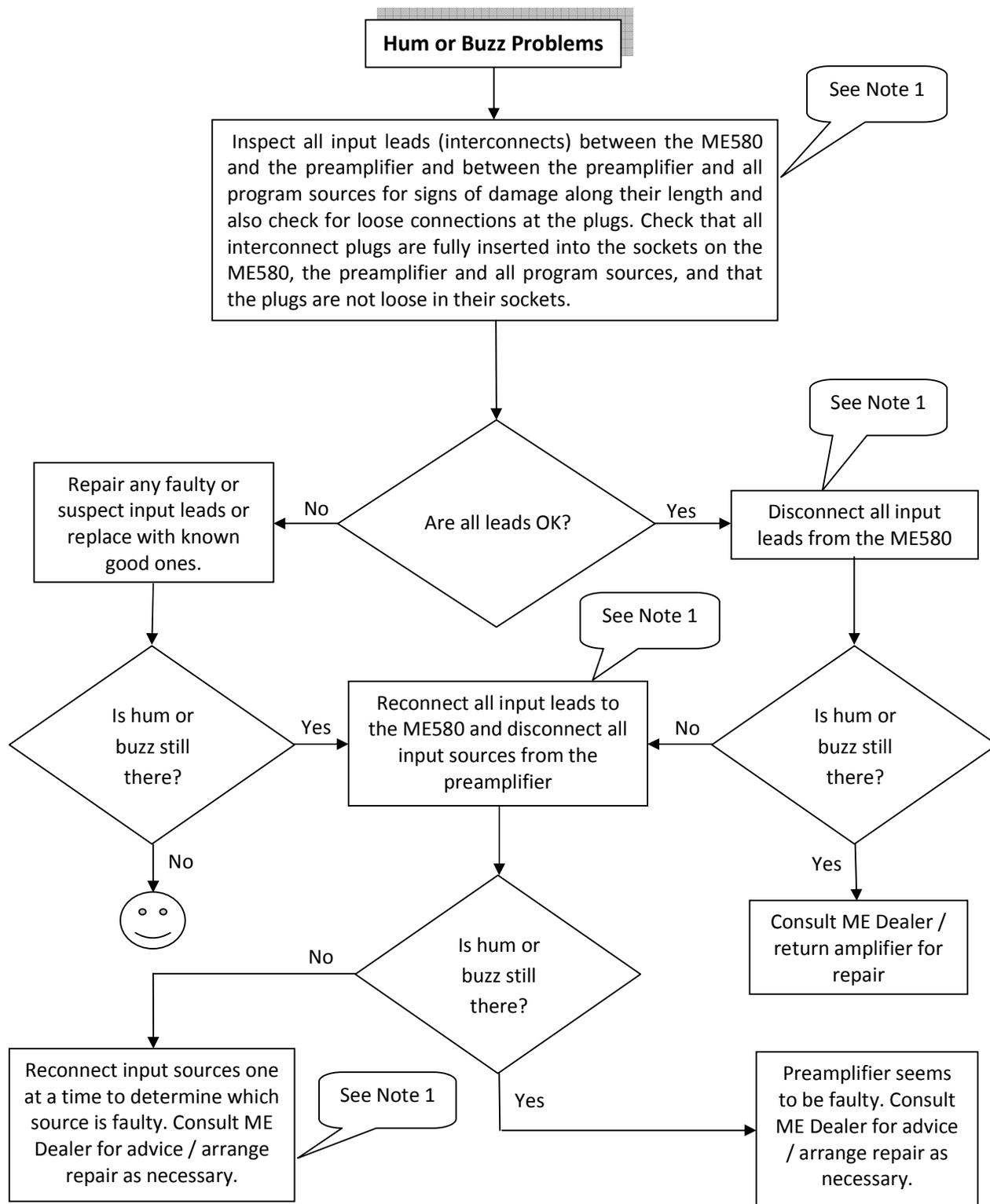


TROUBLESHOOTING



Note 1

Check fuse by measurement or substitution, as appearance is not a good indication, particularly with 'slow blow' fuses that ME amplifiers must use to operate correctly.

**Note 1**

Before disconnecting or reconnecting input leads, turn power off and allow amplifier to discharge for at least 1 minute.

SPECIFICATIONS

Continuous Output Power	2 x 100 Watt RMS into 8 Ohms DC-20KHz	Headroom	2.6dB
	2 x 150 Watt RMS into 4 Ohms DC-20KHz		2.0dB
	1 x 300 Watt RMS into 8 Ohms Bridged DC-20KHz		2.2dB
Voltage Gain	28.5 (29.10dB)		
Input Impedance	100k Ohms (Unbalanced), 20k Ohms (Balanced)		
Phase	Non Inverting – 0 Degrees		
Rise Time	< 1 μ S		
THD & IMD	< 0.01%		
Frequency Response	DC-100KHz -1dB		
Hum & Noise	-100db		
Energy Storage Matrix	75,200 μ F, Upgradeable to 169,200 μ F [With High Capacitance option]		
Power Transformers	Dual 320VA Toroidal		
Cooling	Dual Independent Temperature Controlled Variable Speed Ceramic Bearing Fans		
Dimensions:	Post Version	437mm (W), 327mm (D), 136mm (H) Stackable	
	Free Standing Version	408mm (W), 298mm (D), 122mm (H)	
	Rack Mounting Version	482mm (W), 298mm (D), 122mm (H)	
Mass:	Post Version	15.5 kg	
	Free Standing Version	15 kg	
	Rack Mounting Version	15 kg	
Construction	CNC Machined Aluminium		
Finish - Case	Brushed, Anodised, Black or Natural		
Finish - Features	Gold or Bright/Satin Chrome plated.		
Approvals	Complies with the applicable requirements of AS/NZS CISPR 13: 2004.		
	Compliance Engineering Test Report TR0583 November 2009		

Note: Specifications are correct at the time of publication. ME Amplifiers reserves the right to alter specifications without notice. E&OE

ME580 / ME550 Series II SIMILARITIES AND DIFFERENCES

Your ME580 has been designed and manufactured by Winovate in AUSTRALIA.

Ron Berger the designer, and Peter Stein the founder of ME Sound and designer of the original ME product range, have collaborated in this design using some of the original ME design philosophies.

Comparison of Design Features – ME580 and ME550 Series II

Feature	ME580	ME550-II
Large Capacitor Matrix	Yes	Yes
Zero Global Feedback	Yes	Yes
Symmetrical Discrete Topology	Yes	Yes
Modular Construction & Upgradeability	Yes	Yes
High Current	Yes	Yes
Multiple Output Transistors – 8 / channel	Yes	Yes
AC Disconnect Protection	Yes	Yes
Relay Speaker Disconnect Protection	Yes	No
Output Inductor	Yes	No
Soft Start	Yes	No
Dual Power Supplies	Yes	No
Collector Driven Outputs	No	Yes
Emitter Driven Outputs	Yes	No
High Capacitance Option	Yes	Yes
Standard Capacitance	75,200uF	65,800uF
Capacitance with High Capacitance Option	169,200uF	159,800uF
Transformer (Toroidal)	Dual 320 VA	Single 500 VA
AC & DC Direct Unbalanced Inputs	Yes	Yes
Switchable Balanced Inputs	Yes	No
Bridge Mode	Yes	Yes
Cooling Philosophy	-	-
Fan Cooling	Yes	Yes
Fixed High Temperature Operation	No	Yes
Low and Variable Temperature Operation	Yes	No
Single Variable Speed Fan	No	Yes
Dual Independent Variable Speed Fans	Yes	No

IMPROVEMENTS OVER ME550 Series II

Improvements over ME550 Series II
Lower Measured Distortion
Upgraded Casework – Style
Sophisticated modern protection system
Lower noise fan cooling and long life ceramic bearing fans
Switchable Balanced inputs
Selectable Load Compensation
Mains Line Filter
Lower EMC Emissions
Lower EMC Susceptibility
Transient Protection on Mains Input



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