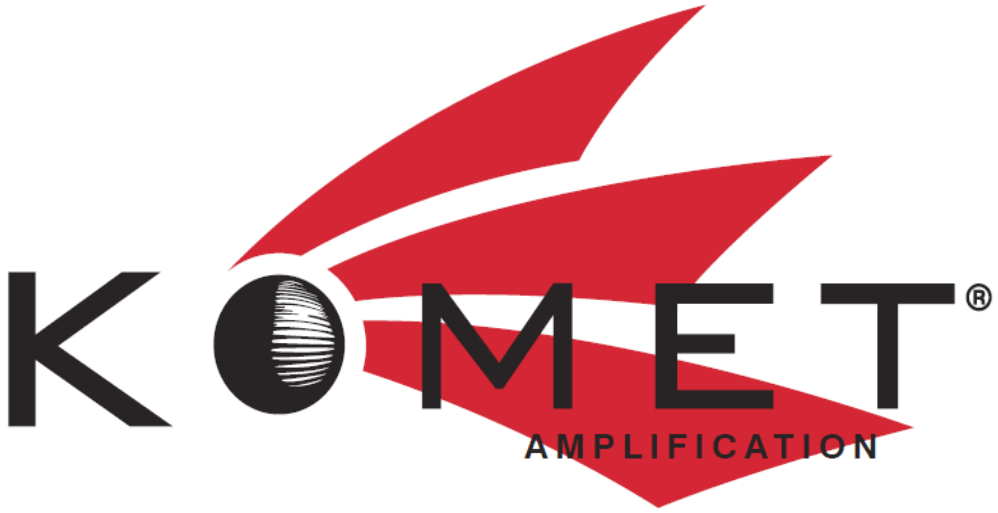

Komet® KAC30 Owner's Manual

PRECAUTIONS

TUBES ARE HOT! Make sure you allow the tubes in your amplifier to cool down before handling them. They are also made of glass and can easily break. Wear safety gloves and goggles when handling audio tubes.

DO NOT OPEN UP THE AMPLIFIER! There are no user serviceable parts inside. There are lethal voltages present even when unplugged.

NEVER: replace the Mains or H.T. fuse with a higher rated fuse. This will most certainly cause severe damage to your amplifier.

NEVER: use a shielded guitar or instrument cable as a speaker cable connection.

NEVER: operate any amp without a speaker load connected to the output jack(s).

ALWAYS: make certain that your AC power cable is unplugged when replacing any fuse.

ALWAYS: operate your Komet® amplifier with the correct tube types listed in this owner's manual.

ALWAYS: use a three pronged, grounded AC power cable and always plug into a properly grounded outlet. Failure to do so may result in injury or death.

ALWAYS UN-PLUG YOUR AMPLIFER WHEN YOU ARE DONE! This is to protect your amplifier from surges in electrical power, or transient voltage. The standard American home AC voltage is 120 Volts. Anything over this amount is considered transient and can damage electronic devices that are plugged into an AC outlet. Though power surges are brief and measured in nanoseconds, they can cause considerable or permanent damage to electronic equipment. Electrical surges can damage electrical equipment by burning or fusing internal wires or by the gradual degradation of a device's internal components. **The best way to prevent damage is to unplug your amplifier when not in use**.

NOTE: Devices such as refrigerators and air conditioners require large amounts of energy to switch motors and compressors on and off. Such devices can create surges in power that disrupt the steady flow of line voltage. Lightning, faulty wiring, downed power lines and faulty equipment at the power source (utility company) can all cause power surges as well.

ALWAYS: try to keep your amplifier and / or speaker cabinet in a climate controlled setting. Failure to do so can be problematic. The tolex on your amplifier head box cabinet can shift and shrink in the Summer, especially if you leave your amplifier for an extended amount of time in a sun heated vehicle, trunk, trailer, or an extremely hot and humid - un-air conditioned environment. This is due to the glue used to apply the tolex to the wooden head box cabinet. The glue can become slightly molten from excessive heat, which can make the tolex movable, expand and then shrink when cooled. Excessive heat can only cause this tolex situation and this **is not** covered under your Komet warranty.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Clean only with a dry cloth.
6. Do not block any ventilation openings.
7. Do not operate near any heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
9. Only use attachments/accessories specified by the manufacturer
10. Unplug this apparatus during lightning storms or when not used for long periods of time.
11. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as a power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
12. **CAUTION**: To disconnect the unit completely from the Mains, unplug the unit. Turning the power switch off does not completely disconnect the unit from the Mains.
13. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades, with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade and the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
14. The unit shall not be exposed to dripping or splashing of liquids, and that no objects filled with liquids such as vases shall be placed on the unit.
15. **WARNING**: This is a **Class 1** apparatus. This unit should be connected to a MAINS socket outlet with a protective earthing connection.

EU ENVIORNMENTAL DIRECTIVES

RoHS This product is compliant with the EU Directive 2011/65/EU for the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment. No lead (Pb), cadmium (Cd), mercury (Hg), hexavalent chromium (Cr+6), PBB or PBDE is intentionally added to this device. Any traces of impurities of these substances contained in the parts are below the RoHS specified threshold levels.

REACh This product is compliant with the European Union Directive EC1907/206 for the Registration, Evaluation, Authorization, and Restriction of chemicals (REACh) and contains none or less than 0.1% of the chemicals listed as hazardous chemicals in the REACh regulation.

WEEE This symbol on the product or its packaging indicates that this product must not be disposed of with other waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city recycling office or the dealer from whom you purchased the product.

CE This product complies with the European Union Council Directives and Standards relating to electromagnetic compatibility EMC Directive (2006/95/EC) and the Low Voltage Directive (2004/10)

Thank you for purchasing one of our amplifier products!

The Komet KAC30 is a straightforward and easy to operate amplifier. The goal of this manual is to help you "*get acquainted* " with your Komet amplifier, and how to make use of its many capable sounds.

FRONT CONTROL PANEL LAYOUT

1. **Power Switch**: engages the wall AC / power to the amplifier.

2. **Standby Switch**: allow the amplifier to warm up for *just a couple* seconds before engaging the standby switch to the play position. The GZ34 rectifier tube will allow for all of the vacuum tubes to slowly heat up to the proper voltage required for operation and will help prolong their lifespan.

3. **Pilot Light**: illuminates when power switch is placed in the "On" position. The pilot light is a type #**47** (6.3 Volt) light bulb. (See troubleshooting section for bulb replacement information).

4. **Hi-Cut**: this control allows shaping of the treble response in the power amp. For players who prefer a darker tone, the only option with most amplifiers, is to roll down the treble control. The treble control is passive (reduces a portion of the signal), so the result is a loss of gain, and "**muddy**" distortion. The Hi-Cut feature allows you to set the preamp EQ for the right balance by "darkening" or "brightening" the overall tone without changing the basic EQ setting.

5. **Bass Control**: controls the low end range bass frequencies.

6. **Treble Control**: controls high end range treble frequencies.

7. **Volume Control**: controls overall volume and gain of the amplifier. (Please see bulletin at the end of manual).

8. **Bright Switch**: middle - off, bottom - 51pf cap, top position - 100pf cap (brightest).

9. **Voicing Switch**: this two position switch allows the user to choose between a more traditional, low gain “Normal“ voicing (in the down position) or a more stout, “Top Boost” gain voicing (in the up position).

10. **Input Jack**: accepts standard ¼ inch plug - input impedance is **1** Megohm.

BACK CONTROL PANEL LAYOUT

1. **AC Input**: this IEC receptacle accepts standard DIN AC power cable. All Komet amplifiers can be modified to run on either 120V or 240V. Please inquire with Komet Amplification for AC conversion information.

2. **Mains Fuse**: **3 Amp** "slow-blow" fuse (a.k.a. MDL 3A size: ¼ inch by 1 and 1/4 inch) in **120V**, **2 Amp** "slow-blow" fuse in **240V**. **CAUTION**: **ALWAYS MAKE SURE YOUR AMPLIFIER AC CABLE IS UN-PLUGGED BEFORE REPLACING A FUSE**.

3. **H**.**T**. **Fuse**: (high tension fuse) **½ Amp** *or* **500**mA (a.k.a. AGC 500 mA a.k.a. "**fast acting**" fuse size: ¼ inch by 1 and 1/4 inch). **CAUTION**: **NEVER** REPLACE ANY FUSE WITH A **HIGHER** RATED FUSE. This will **most certainly** cause severe damage to your amplifier.

4. **Output Impedance Selector**: set this selector according to the appropriate speaker impedance you are using. **4**, **8**, and **16** Ohm settings are available.

5. **Output Jacks**: two, standard ¼ inch speaker jacks. MAIN input for single cabinet use. AUX for second cab. These two, output speaker jacks are wired paraelle. **Please note**: never use a shielded instrument cable as a speaker cable on any amplifier; this can cause severe internal damage.

TUBE CHOICES

All Komet® amplifiers are designed and voiced to utilize current production audio vacuum tubes to their maximum potential.

The stock power tubes are a "**matched**" set of the Electro Harmonix, Mullard reissue **EL84**. The Mullard reissue EL84s are of excellent quality and reliable. **Note**: matched power tubes ensure that all of the power tubes will operate *and react* equally within the amplifier. They guarantee better harmonics, a better sonic performance, and an extended tube lifespan.

The current stock 12AX7 pre amp tubes (from the far left to right) **V1** and **V3 -** are Electro Harmonix 12AX7 / 7025s. The KAC30 sounds powerful, complex and detailed with this power and pre amp tube compliment. You will discover that the distortion is balanced and harmonically rich. This selection is only a recommendation and is our standard factory set up.

Please note: both - the power and the pre amp tubes in your KAC30 amplifier are internally self biased (cathode biased). No bias adjustment is necessary. The EL84 power tubes operate in a shared, dual cathode resistor design (V4 and V5 = one, shared cathode resistor and V6 and V7 one, shared cathode resistor.

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Please note: you may find that some pre amp tubes, whether newly manufactured, used, or even n.o.s., may be too "**microphonic**" for the first gain stage (V1) of a Komet amplifier. A microphonic preamp tube is a condition in which a tube will absorb mechanical vibration and amplify it into the audible range. In this scenario, a tube can "**feed back**", or give off a loud, high pitched squealing noise. Feed back can occur intermittently, even without an instrument plugged into the input of the amp. This does not mean that the tube(s) are completely unusable. One possible solution you can experiment with is moving the microphonic tube to the V3 phase inverter socket where microphonics are not as noticeable. The microphonic 12AX7 may be quieter in the V3 position as opposed to the V1 or V2 position.

Please note: a small amount of "**hiss**" is normal for high gain amplifiers. An excessive amount of hiss, especially when the volume control of the amplifier is all the way down and with no instrument plugged in the amplifier's input, usually denotes a bad pre amp tube. Some n.o.s. audio tube suppliers offer "select", or hand picked pre amp tubes, which are superior in all aspects of quality, especially when it comes to being quiet and non-microphonic.

Please note: your amplifier produces heat. Prolonged gigs, outdoor or non-climate controlled venues, only multiply that factor. We suggest (after extended periods of play) that you allow for a sufficient amount of time to pass so as to let your amplifier cool down prior to moving or loading. This action will help protect and extend the lifespan of the audio tubes and internal components from excessive vibration or damage.

Caution: please pay close attention when extracting and installing the power and pre amp tubes. The pins of the tube - must align perfectly - into the tube's socket. Bent pins, especially when forced into a tube socket, **will** cause serious damage to an amplifier's tube socket pin inserts. **99%** of the time this results with the tube socket needing to be replaced. To avoid this contingency, we recommend that you purchase a miniature pinned, nine hole, pre amp tube pin straightener. These can be found online from many vintage tube retailers. This easy to use device guarantees that your 12AX7 pre amp tube power tube pins will be straight and aligned for socket insertion. **Note**: Komet Amplification's warranty **will not** cover damage done to a tube socket's insertion pins from forced or accidental mis-alignment / and or bent / crimped insertion pins.

TUBE REPLACEMENT

A noticeable deterioration in your amplifier's overall sound is an indication of an imminent power tube replacement. You may notice symptoms such as "**muddy**" or "**saggy**" power chords, a loss of tightness or "**punch**", a weak sounding treble and bass, and loss of certain sonic frequencies or note "**bloom**". We suggest that you first start by replacing your power tubes and that you purchase your EL84 power tubes from a reputable dealer that matches and selects each power tube Mu (voltage gain), Gm (transconductance) and Rp (plate resistance).

The pre amp tubes can last a *very* long time, and do not necessarily need to be replaced as often as the power tubes. However, we do recommend that you have them properly tested by a qualified technician between servicing.

SPEAKERS

The Komet KAC30 is a big and bold sounding amp. It is voiced for a sparkling clean sound at low volumes, and a smooth, dynamic - harmonic overdrive and strong midrange punch. You will find the KAC30 excels with both closed back and open back speaker cabinets.

Whichever cabinet you do use, make sure you **set the impedance selector correctly**. If you use two cabinets, keep in mind that the amplifier's outputs are in parallel. This means that if you are operating the amplifier on two, 16 Ohm cabinets, you must set the amplifier's impedance selector to the 8 Ohm setting. Set the Ohm selector to 4 Ohms if you are operating two, 8 Ohm cabinets. We do not recommend using two, 4 Ohm cabinets. Speaker wiring diagrams are located at the end of this owner's manual.

A Special Note on Speaker Cable, **Cabinets and Speakers**: it is crucial that you always maintain a solid, un-interrupted signal between your amplifier and speaker cabinet. Sub-standard speaker cables as well as sub-standard cabinet wiring can become problematic, intermittent and fail over time. This can possibly causing damage to your amplifier and speakers. We recommend that you use quality brand speaker cables (18 gauge is sufficient) made with quality male input plugs. The speaker cable plugs should be soldered directly on to the internal speaker cable wires. Using a quality made speaker cable will ensure a tight fit from the amplifier's speaker jacks to the speaker cabinet.

Your speaker cabinet should be equipped with a quality brand input jack. We prefer and use the Switchcraft® #11 mono input on our cabinets, amplifiers and vintage repairs. Many vintage speaker cabinets from the 1960's to 1970's used the #11 jack. It is reliable, solid and time tested. Many modern made brand speaker cabinets use the Switchcraft® #11, but not all. Some manufacturers have their speaker jacks panel mounted on the back of their cabinets which incorporate an internal circuit board on which the jacks are soldered. This type of system is not designed for a type #11 jack, and conversion to the #11 jack can be very tedious. All electrical work should be performed by a professional and knowledgeable technician.

We also urge you to inspect and make sure that all of your internal speaker cabinet wire leads are soldered at the speaker jack and soldered at the speaker terminals. We **do not** recommend using the "slide on" gripping type speaker wire terminals. These grip type terminals loosen over time causing an interruption or failure of the signal. These recommendations help guarantee a solid, **un-interrupted signal** from the amplifier to the speakers at all times.

TROUBLESHOOTING

When troubleshooting a problem, we recommend that you remove all effects pedals and only go direct with your guitar and guitar cable into the amplifier. Also, remove any attenuation device from your amplifier to speaker cabinet signal chain. This way you can easily and quickly rule out or discover if your amplifier is the source of the problem.

Pilot Light Not On:

Check to see if the amplifier's AC cable is plugged in at wall and plugged in at the IEC connection on the back panel of the amp

Make sure the DIN AC cable plug is securely inserted into the IEC AC input connection, and pushed in all the way. Check the type 47 pilot light bulb. It may be burned out. For the bulb replacement, gently turn the jewel lens cap counterclockwise and remove. Using the tips of your fingers, gently push and turn the exposed bulb counterclockwise, extract bulb and replace. **Note:** your amplifier will continue to operate with no problem with a shorted type 47 bulb or with no bulb at all.

Check the **3** amp "slow blow" AC supply Mains fuse to see if it has blown. If blown, replace the blown fuse with a **3** amp slow blow (a.k.a. MDL 3A 250V). 2 Amp S.B. if under 240 Volt operation. **ALWAYS**: make certain that your AC power cable is unplugged when replacing any fuse.

Main's fuse - "Blowing"

Un-plug amplifier from the wall AC. Remove the power tubes. Install a new 3 amp "slow blow" fuse. Plug into the wall AC and turn the amp on. If amp continues to blow the mains fuse, (with no tubes in the amp), then your amp will need to be serviced.

If the fuse does not blow, and the amp lights up, turn the amp back off again, and install the power tubes or a new set of power tubes. Turn the amp back on. If the fuse does not blow, check the bias and play the amp and monitor. If the fuse blows with the original set of power tubes, but does not blow with new power tubes, then one or both of the original power tubes are defective. If the high voltage H.T. fuse blows, it is most likely a defective power tube, or your bias setting may be too high.

Amp Lights Up - No Sound:

Check the speaker connection at back of amp and at the input of the speaker cabinet. Bypass all pedals and effects and plug your guitar into only the amplifier. Check the guitar cable.

Note: check the speaker jack connection. Neutrik® type plugs often do not connect well to Switchcraft® input jacks, causing a weak or complete signal interruption.

Check the **power** and the **pre amp** tubes and make sure that they are installed correctly and that the filaments within each tube are lit. **Important Note**: occasionally, audio vacuum tubes can look operational - (with the filaments lit) - but be defective in not passing signal. This is rare, but can occur. Check each tube individually against a spare (good) 12AX7 in each pre amp tube socket.

The power tubes can easily be ruled out by testing the bias of each tube with your volt meter. Check / test / replace - the **H**.**T**. fuse for continuity with a digital Ohm meter. It may be blown.

Amp is making a "**Humming**", "**Hissing**", "**Feedback**", "**Crackling**" or "**Sputtering**" sound

This is most likely a bad pre amp tube. Pre amp tubes can develop problems over their life span. They may be operating flawlessly, and they may also test fine on a tube tester, but for what appears like for no reason, can suddenly begin to make a "**hissing**" or a "**crackling**" sound. They can begin to feedback or have microphonic or "**ringing**" symptom, or develop filament "**humming**" - which is a low background hum, often mistaken for a problematic filter cap.

Filament "**humming**" is much more common with new, modern available pre amp tubes, as opposed to n.o.s. power and pre amp tubes. Unfortunately, you will most likely have to replace one of more of your pre amp tubes that develop or have this problem

Fluorescent and neon lights, rheostat wall dimmers, and some appliances may cause your amp to contain a "**hum**" or "**buzz**" sound. An internally shorted guitar cable or using a speaker cable for a guitar cable can also create a "**buzz**" sound through your amp. Always check your cables!

PLEASE NOTE! a smart phone / iPhone placed near or in the vicinity of your Komet amplifier can make a sputtering sound come from your amplifier / speaker cabinet. This is due to the frequencies emitted by your phone. Always make sure you keep your smart phone away from your equipment when recording.

Over time, the input jack may occasionally make a "crackle" sound when you extract your instrument cable from the front panel of your amp. This is usually due to a dust / contaminates build up on the input jack's ground shunt. This would require that the inside of the input jack be cleaned professionally. We recommend using DeoxIT® Gold G5.

SERVICING

We are very confident that your Komet amplifier is one of the most reliable amplifiers ever built. A combined experience of many decades of design and service has been applied to the construction of all Komet amplifier models. We have been inside thousands of amps and we have seen every type of problem that can occur. Great care has been taken to anticipate and prevent such problems in your Komet amplifier.

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Every part and component in this amp is carefully chosen for its specific performance. Some parts are proprietary or n.o.s. components, and some are very difficult to acquire. We do not recommend replacing any of the internal components with generic parts from different manufacturers. We also recommend that you should bring your Komet amplifier to a qualified service technician if you do not feel comfortable changing the tubes. Should your Komet amplifier ever need servicing or repair, *please* make arrangements to have your amp shipped back to Komet Amplification for factory service.

SPECIFICATIONS

- **Dimensions**: 21.75" x 10" x 9.5"
- **Weight**: approx. 38 lbs.
- **Power**: 30 Watts RMS
- **Tubes**: 3 - 12AX7, 4 - EL84
- **Mains Fuse**: **3** Amp "slow blow" a.k.a. MDL **3**A rated at 250V (2 Amp / 240V operation)
- **H**.**T**. **Fuse**: **½** Amp "*fast acting*" a.k.a. AGC **500** mA - rated at 250V

A FINAL WORD

Your Komet amplifier was designed to be played and enjoyed. By virtue of its unmatched quality, it will free you from thinking about your equipment and concentrate on the very thing that matters: **your music**. Its responsiveness, musicality and immediacy - places you in charge of your sound. It can handle any live / club performance situation with ease and is voiced to cut through the band mix.

Give yourself and your new amp a little time to get to know each other. No matter how good it sounds right out of the box, your amp will break in and improve tremendously after being played over time. The harmonic complexity will also improve; the tone will sweeten up and become even more fluid and resonant. Have fun!

Thank you for purchasing our product.

Michael Kennedy
Holger Notzel
Co-owners
Komet Amplification

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Holger Notzel
Michael Kennedy
Co-owners
Komet Amplification

KOMET®AMPLIFICATION'S WARRANTY

This warranty shall be void and of no force of effect in the event a covered product has been modified in design or function, or subjected to abuse, misuse, (which includes operation of amplifier with incorrect tube types), mishandling or unauthorized repair. Further, product malfunction or deterioration due to normal wear is not covered by this warranty. This includes the factory installed audio tubes and the amplifier's tube sockets. **Note:** any transformer failure will require a full inspection / diagnostic by the OEM transformer manufacturer for the cause of failure. Komet Amplification will not warranty Komet Amplification warrants their amplifiers to be free from defects in materials and workmanship for a (2) two year period. Komet Amplification will repair or replace any part there of which, upon inspection by Komet Amplification, is found to be defective in materials or workmanship. As a condition to the obligation of Komet Amplification to repair or replace such a part, the product must be returned to Komet Amplification with a copy of the original and dated sales receipt from the authorized Komet dealer. Komet Amplification's warranty is only applicable to the original owner of the amplifier. Warranty is not transferable.

The Proper Return Authorization must be obtained from Komet Amplification in advance of a return. Please call or e-mail Komet Amplification to receive authorization for warranty repair. All returns must be accompanied by a written statement setting forth the name, address, and daytime telephone number of the owner, together with a brief description of any claimed defects. Parts or product for which replacement is made shall become the property of Komet Amplification. The customer may be responsible for all costs of transportation and insurance, both to and from Komet Amplification, depending on result of inspection and validation of warranty request. Customer may be required to prepay such costs.

Komet Amplification shall use reasonable efforts to repair or replace any part covered by this limited warranty within thirty days of receipt. In the event repair or replacement shall require more than thirty days, Komet Amplification shall notify the customer accordingly. Any output transformer found (by the OEM transformer manufacturer) to be damaged from being overstressed or internally compromised by an attenuation device.

Warranty Exclusions and Limitations: Notwithstanding the foregoing, all warranty claims are excluded if:

Warranty Exclusions and Limitations: Notwithstanding the foregoing, all warranty claims are excluded if:

i. the Product(s) is damaged or destroyed due to the effects of force majeure, including but not limited to: Acts of God, flood, fire; Acts of War, government authority, acts of terrorism, riots, explosions, embargo; Labor difficulty, strikes, breakdown of machinery or equipment, accidents; Shortage or inability to obtain raw materials, equipment, fuel, power, transportation; or Any cause beyond KOMET's reasonable control or due to environmental influences such as wind, hailstones, snow, frost, etc.

ii. the Product(s) is damaged from abuse, misuse, improper installation, or neglect;

iii. the Product(s) is altered or appears to have been attempted repair by unauthorized personnel;

iv. if the Product(s) has been modified in any way; or if a defective product has remained in use, resulting in consequential damage to the Product(s).

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SHIPPING INSTRUCTIONS

Note: Komet Amplification highly recommends that you review all packaging, insurance requirements, and shipping recommendations of the shipping company you intend to use.

Komet suggests using a: **30** X **15** X **15** foam injected, **300** lb. test, corrugated cardboard shipping box.

Komet also suggests having your amplifier professionally packaged to ensure safety.

Shipped amplifiers should be insured for at least the **full value** of the amplifier.

Please do not return ship your amplifier with the AC power cable.

Please do not return ship your amplifier with n.o.s. / expensive vacuum tubes.

Please do not return ship your amplifier for "Home Delivery" service or Saturday delivery.

Please do not send for early morning delivery (before 9:00 A.M.). Please mark afternoon delivery.

Our address is **commercial**. Please check any corresponding box on shipping label.

Note: Komet Amplification will not be held responsible for any Komet amplifier, amplifier component, or contents, damaged or lost during shipping to Komet Amplification. Komet Amplification will not be held responsible for any damage or loss of an amplifier due to improper packaging