



# Portable Sound



**F.A.S.T**  
FLEXIBLE ACTIVE  
SOUND TOOL

Manual 1.2

English  
Deutsch

## Important Safety Instructions

Before connecting, read instructions

- Read all of these instructions!
- Save these instructions for later use!
- Follow all warnings and instructions marked on the product!
- Do not use this product near water, i.e. bathtub, sink, swimming pool, wet basement, etc.
- Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product or to persons!
- Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. This product should not be placed in a built-in installation unless proper ventilation is provided.
- This product should not be placed near a source of heat such as a stove, radiator, or another heat producing appliance.
- Use only the supplied power supply or power cord. If you are not sure of the type of power available, consult your dealer or local power company.
- Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
- Never break off the ground pin on the power supply cord.
- Power supply cords should always be handled carefully. Periodically check cords for cuts or sign of stress, especially at the plug and the point where the cord exits the unit.
- The power supply cord should be unplugged when the unit is to be unused for long periods of time.
- If this product is to be mounted in an equipment rack, rear support should be provided.
- This product should be used only with a cart or stand that is recommended by HK AUDIO®.
- Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind on the product.
- Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
- Clean only with dry cloth.
- 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 or the third prong are provided for the safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - When the power cord or plug is damaged or frayed.
  - If liquid has been spilled into the product.
  - If the product has been exposed to rain or water.
  - If the product does not operate normally when the operating instructions are followed.
  - If the product has been dropped or the cabinet has been damaged.
  - If the product exhibits a distinct change in performance, indicating a need of service!
- Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
- Exposure to extremely high noise levels may cause a permanent hearing loss.
- Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures:

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

- According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss.
- Ear plug protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.
- Fuses: Replace with IEC 127 (5x20 mms) type and rated fuse for best performance only.

TO PREVENT THE RISK OF FIRE AND SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO MOISTURE OR RAIN. DO NOT OPEN CASE; NO USER SERVICE-ABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Version 1.0 10/2004

## Important Advice on Safety!

Please read before use and keep for later use!

- The unit has been built by HK AUDIO® in accordance with IEC 60065 and left the factory in safe working order. To maintain this condition and ensure non-risk operation, the user must follow the advice and warning comments found in the operating instructions. The unit conforms to Protection Class 1 (protectively earthed).
- **HK AUDIO® ONLY GUARANTEE THE SAFETY, RELIABILITY AND EFFICIENCY OF THE UNIT IF:**
  - Assembly, extension, re-adjustment, modifications or repairs are carried out by HK AUDIO® or by persons authorized to do so.
  - The electrical installation of the relevant area complies with the requirements of IEC (ANSI) specifications.
  - The unit is used in accordance with the operating instructions.
  - The unit is regularly checked and tested for electrical safety by a competent technician.
- **WARNING:**
  - If covers are opened or sections of casing are removed, except where this can be done manually, live parts can become exposed.
  - If it is necessary to open the unit this must be insulated from all power sources. Please take this into account before carrying out adjustments, maintenance, repairs and before replacing parts.
  - The appliance can only be insulated from all power sources if the mains connection is unplugged.
  - Adjustment, maintenance and repairs carried out when the unit has been opened and is still live may only be performed by specialist personnel who are authorized by the manufacturer (in accordance with VBG 4) and who are aware of the associated hazards.
  - Loudspeaker outputs which have the IEC 417/5036 symbol (Diagram 1, below) can carry voltages which are hazardous if they are made contact with. Before the unit is switched on, the loudspeaker should therefore only be connected using the lead recommended by the manufacturer.
  - Where possible, all plugs on connection cables must be screwed or locked onto the casing.
  - Replace fuses only with IEC127 type and specified ratings.
  - It is not permitted to use repaired fuses or to short-circuit the fuse holder.
  - Never interrupt the protective conductor connection.
  - Surfaces which are equipped with the "HOT" mark (Diagram 2, below), rear panels or covers with cooling slits, cooling bodies and their covers, as well as tubes and their covers are purposely designed to dissipate high temperatures and should therefore not be touched.
  - High loudspeaker levels can cause permanent hearing damage. You should therefore avoid the direct vicinity of loudspeakers operating at high levels. Wear hearing protection if continuously exposed to high levels.

### MAINS CONNECTION:

- The unit is designed for continuous operation.
- The set operating voltage must match the local mains supply voltage.
- The unit is connected to the mains via the supplied power unit or power cable.
- Power unit: Never use a damaged connection lead. Any damage must be rectified by a competent technician.
- Avoid connection to the mains supply in distributor boxes together with several other power consumers.
- The plug socket for the power supply must be positioned near the unit and must be easily accessible.

### PLACE OF INSTALLATION:

- The unit should stand only on a clean, horizontal working surface.
- The unit must not be exposed to vibrations during operation.
- Keep away from moisture and dust where possible.
- Do not place the unit near water, baths, wash basins, kitchen sinks, wet areas, swimming pools or damp rooms. Do not place objects containing liquid on the unit - vases, glasses, bottles etc.
- Ensure that the unit is well ventilated.
- Any ventilation openings must never be blocked or covered. The unit must be positioned at least 20 cm away from walls. The unit may only be fitted in a rack if adequate ventilation is ensured and if the manufacturer's installation instructions are followed.
- Keep away from direct sunlight and the immediate vicinity of heating elements and radiant heaters or similar devices.
- If the unit is suddenly moved from a cold to a warm location, condensation can form inside it. This must be taken into account particularly in the case of tube units. Before switching on, wait until the unit has reached room temperature.
- Accessories: Do not place the unit on an unsteady trolley, stand, tripod, base or table. If the unit falls down, it can cause personal injury and itself become damaged. Use the unit only with the trolley, rack stand, tripod or base recommended by the manufacturer or purchased together with the unit. When setting the unit up, all the manufacturer's instructions must be followed and the setup accessories recommended by the manufacturer must be used. Any combination of unit and stand must be moved carefully. A sudden stop, excessive use of force and uneven floors can cause the combination of unit and stand to tip over.
- Additional equipment: Never use additional equipment which has not been recommended by the manufacturer as this can cause accidents.
- To protect the unit during bad weather or when left unattended for prolonged periods, the mains plug should be disconnected. This prevents the unit being damaged by lightning and power surges in the AC mains supply.

Diagram 1



Diagram 2



## Wichtige Sicherheitshinweise!

Bitte vor Gebrauch lesen und für späteren Gebrauch aufbewahren!

- Das Gerät wurde von HK AUDIO® gemäß IEC 60065 gebaut und hat das Werk in sicherheitstechnisch einwandfreiem Zustand verlassen. Um diesen Zustand zu erhalten und einen gefahrlosen Betrieb sicherzustellen, muss der Anwender die Hinweise und die Warnerverke beachten, die in der Bedienungsanleitung enthalten sind. Das Gerät entspricht der Schutzklasse I (schutzgeerdet).
- **DIE SICHERHEIT, ZUVERLÄSSIGKEIT UND LEISTUNG DES GERÄTES WIRD VON HK AUDIO® NUR DANN GEWÄHRLISTET, WENN:**
  - Montage, Erweiterung, Neueinstellung, Änderungen oder Reparaturen von HK AUDIO® oder von dazu ermächtigten Personen ausgeführt werden.
  - die elektrische Installation des betreffenden Raumes den Anforderungen von IEC (ANSI)-Festlegungen entspricht.
  - das Gerät in Übereinstimmung mit der Gebrauchsanweisung verwendet wird.

### WARNUNG:

- Wenn Abdeckungen geöffnet oder Gehäuseteile entfernt werden, außer wenn dies von Hand möglich ist, können Teile freigelegt werden, die Spannung führen.
- Wenn ein Öffnen des Gerätes erforderlich ist, muss das Gerät von allen Spannungsquellen getrennt sein. Berücksichtigen Sie dies vor dem Abgleich, vor einer Wartung, vor einer Instandsetzung und vor einem Austausch von Teilen.
- Ein Abgleich, eine Wartung oder eine Reparatur am geöffneten Gerät unter Spannung darf nur durch eine vom Hersteller autorisierte Fachkraft (nach VBG 4) geschehen, die mit den verbundenen Gefahren vertraut ist.
- Lautsprecher-Ausgänge, die mit dem IEC 417/5036-Zeichen (Abb.1, s.unten) versehen sind können berührungsfähige Spannungen führen. Deshalb vor dem Einschalten des Gerätes Verbindung nur mit dem vom Hersteller empfohlenen Anschlusskabel zum Lautsprecher herstellen.
- Alle Stecker an Verbindungskabeln müssen mit dem Gehäuse verschraubt oder verriegelt sein, sofern möglich.
- Es dürfen nur Sicherungen vom Typ IEC 127 und der angegebenen Nennstromstärke verwendet werden.
- Eine Verwendung von geflickten Sicherungen oder Kurzschließen des Halters ist unzulässig.
- Niemals die Schutzleiterverbindung unterbrechen.
- Oberflächen, die mit dem "HOT"-Zeichen (Abb.2, s.unten) versehen sind, Rückwände oder Abdeckungen mit Kühlschlitzen, Kühlkörper und deren Abdeckungen, sowie Röhren und deren Abdeckungen können im Betrieb erhöhte Temperaturen annehmen und sollten deshalb nicht berührt werden.
- Hohe Lautstärkepegel können dauerhafte Gehörschäden verursachen. Vermeiden Sie deshalb die direkte Nähe von Lautsprechern, die mit hohen Pegeln betrieben werden. Verwenden Sie einen Gehörschutz bei dauernder Einwirkung hoher Pegel.

### NETZANSCHLUSS:

- Das Gerät ist für Dauerbetrieb ausgelegt.
- Die eingestellte Betriebsspannung muss mit der örtlichen Netzspannung übereinstimmen.
- Der Anschluss an das Stromnetz erfolgt mit dem mitgelieferten Netzteil oder Netzkabel.
- Netzteil: Eine beschädigte Anschlussleitung kann nicht ersetzt werden. Das Netzteil darf nicht mehr betrieben werden.
- Vermeiden Sie einen Anschluss an das Stromnetz in Verteilerdosen zusammen mit vielen anderen Stromverbrauchern.
- Die Steckdose für die Stromversorgung muss nahe am Gerät angebracht und leicht zugänglich sein.

### AUFSTELLUNGORT:

- Das Gerät sollte nur auf einer sauberen, waagerechten Arbeitsfläche stehen.
- Das Gerät darf während des Betriebs keinen Erschütterungen ausgesetzt sein.
- Feuchtigkeit und Staub sind nach Möglichkeit fernzuhalten.
- Das Gerät darf nicht in der Nähe von Wasser, Badewanne, Waschbecken, Küchenspüle, Nassraum, Swimmingpool oder feuchten Räumen betrieben werden. Keine mit Flüssigkeit gefüllten Gegenstände - Vase, Gläser, Flaschen etc. auf das Gerät stellen.
- Sorgen Sie für ausreichende Belüftung der Geräte.
- Eventuelle Ventilationsöffnungen dürfen niemals blockiert oder abgedeckt werden. Das Gerät muß mindestens 20 cm von Wänden entfernt aufgestellt werden. Das Gerät darf nur dann in ein Rack eingebaut werden, wenn für ausreichende Ventilation gesorgt ist und die Einbauanweisungen des Herstellers eingehalten werden.
- Vermeiden Sie direkte Sonneneinstrahlung sowie die unmittelbare Nähe von Heizkörpern und Heizstrahlern oder ähnlicher Geräte.
- Wenn das Gerät plötzlich von einem kalten an einen warmen Ort gebracht wird, kann sich im Geräteinnern Kondensfeuchtigkeit bilden. Dies ist insbesondere bei Röhrengeräten zu beachten. Vor dem Einschalten solange warten bis das Gerät Raumtemperatur angenommen hat.
- Zubehör: Das Gerät nicht auf einen instabilen Wagen, Ständer, Dreifuß, Untersatz oder Tisch stellen. Wenn das Gerät herunterfällt, kann es Personenschäden verursachen und selbst beschädigt werden. Verwenden Sie das Gerät nur mit einem vom Hersteller empfohlenen oder zusammen mit dem Gerät verkauften Wagen, Rack, Ständer, Dreifuß oder Untersatz. Bei der Aufstellung des Gerätes müssen die Anweisungen des Herstellers befolgt und muss das vom Hersteller empfohlene Aufstellzubehör verwendet werden. Eine Kombination aus Gerät und Gestell muss vorsichtig bewegt werden. Plötzliches Anhalten, übermäßige Kraftanwendung und ungleichmäßige Böden können das Umkippen der Kombination aus Gerät und Gestell bewirken.
- Zusatzvorrichtungen: Verwenden Sie niemals Zusatzvorrichtungen, die nicht vom Hersteller empfohlen wurden, weil dadurch Unfälle verursacht werden können.
- Zum Schutz des Gerätes bei Gewitter oder wenn es längere Zeit nicht beaufichtigt oder benutzt wird, sollte der Netzstecker gezogen werden. Dies verhindert Schäden am Gerät aufgrund von Blitzschlag und Spannungstößen im Wechselstromnetz.

Abb.1



Abb.2



## Welcome to the HK AUDIO® family!

Thank you for choosing F.A.S.T, the Flexible Active Sound Tool from HK AUDIO®.

Like all HK AUDIO® systems, F.A.S.T is a complete sound reinforcement solution comprising speakers and integrated electronics. F.A.S.T was specifically developed from the ground up to excel in a broad variety of applications.

A key factor in its successful transition from drawing board to finished product has been the careful selection and matching of its components. The sonic magic to which we aspire requires components that do more than merely fit together – they must form a synergistic whole, harmonizing to create systems greater than the sum of their parts.

These are tall orders, indeed. To fill them all, HK AUDIO® engineers developed many new features and technologies. As with every HK AUDIO® Active System, these features have been handpicked and fine-tuned to make F.A.S.T. an exceptionally well-rounded system. And by gearing F.A.S.T to satisfy the requirements of specific sonic scenarios, we have ensured that it will deliver the best possible results for its intended applications.

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## 1 F.A.S.T's Control Features

### 1 Gain Mic In

Twist this knob to adjust the microphone level.

**NOTE: You can adjust the microphone and line / auxiliary inputs separately and mix them as desired.**

### 2 Mic In

You can opt to plug a microphone directly into this electronically balanced XLR input.  
(pin 1= ground, 2= +, 3= -).

### 3 Gain Line In

This knob adjusts power amp gain to match input signal levels. In the event that distortion becomes audible, the incoming signal level is too high. Simply back off this knob.

### 4 Line In

Connect cords carrying signals from your mixer to this combination XLR/1/4" input.  
(pin 1= ground, 2= +, 3= -).

### 5 Through

Use this parallel output to patch out Line signals, for example, to additional F.A.S.T cabinets.

### 6 Fuse

Mains fuse. This fuse blows in the event of a malfunction, severing the connection between F.A.S.T and the mains power supply to protect the system from harm. Replace it with another fuse of the same type and rating only.

### 7 Mains Input

Use the factory-included power cord to connect this socket to a mains outlet.

**CAUTION! Make sure the local mains voltage matches the voltage specified on F.A.S.T's rear panel. If you connect it to the wrong mains voltage, you may destroy F.A.S.T's electronic components.**

### 8 Powerswitch

F.A.S.T on/off switch. The light on the button illuminates red to indicate that it is powered up.

## 2 Setting Up and Connecting F.A.S.T

Connect a cord equipped with standard XLR microphone connectors to carry signals from your mixer (from a monitor out, line out, or similar output.) to the balanced Line In sockets. Make sure the XLR-connectors have the following pin assignments:  
1= ground, 2= +, 3= -.

If you hear distortion or saturated signals, first check the signal sources and, if possible, reduce the output signal level there. If the signal that you are routing to the F.A.S.T system cannot be adjusted at the source, adjust its level using the Gain Line In knob.

If you want to connect a microphone directly to F.A.S.T without going into a mixer first, plug it into the balanced Mic In socket. Use a standard XLR-microphone cord to do this. Make sure the XLR-connectors have the following pin assignments:  
1= ground, 2= +, 3= -.  
Use this knob to adjust microphone level.

**NOTE: You can adjust the microphone and line inputs separately and mix them as desired.**

In the event of audible distortion or saturated signals, back the Gain Mic In knob off.

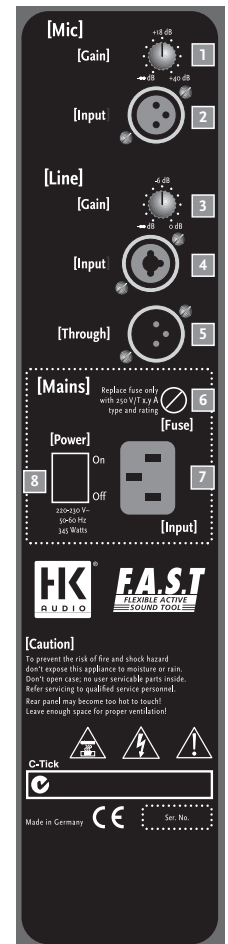
## 3 Operating F.A.S.T

Make sure the Power On switch is set to the Off position.

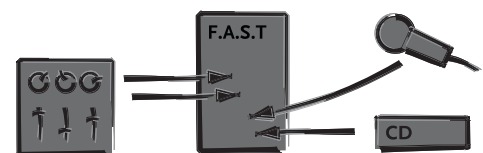
**CAUTION! Connect the power cable only after you have made sure that the local mains voltage matches the voltage specified on F.A.S.T's rear panel. If you connect it to the wrong mains voltage, you may destroy F.A.S.T's electronic components.**

Turn all Gain knobs (Gain Line In and Gain Mic In) all the way down (counterclockwise as far as they will go).

Ensure all connected peripheral components are switched on before powering F.A.S.T up. First, switch on the connected mixer and all signal sources connected to it, for example, keyboards, amps, effects, and so forth.



Pict 1: F.A.S.T rear panel



Pict 2: F.A.S.T setup

Always switch F.A.S.T on last, that is, after you switch on all connected devices. Always switch F.A.S.T off first, that is, before you switch off all connected devices. After you power the system up by activating the On/Off switch (it will light up red when it is set to On and getting mains power), turn up the Gain Line In knob. If you connect a CD-player or a keyboard directly, twist the Gain Line In knob clockwise. Depending on input signal level, you can turn it all the way to the far right to achieve maximum volume.

## 4 Tips and Tricks

### 1 Don't expose electronic circuitry to moisture!

When you set the system up outdoors, be sure to protect it against rain. Keep soft drinks, beer, or any other liquids well away from the cabinets to protect their electronic components from short circuits.

**2 F.A.S.T delivers optimum sound, so you should provide it with optimum input signals!** Noise such as humming is generally caused by defective cables, the wrong type of cords, or unbalanced signals routed into the mixing console. Check all signal and mains cables.

**3 Prevent distortion!** Not only is it unpleasant to the ears of your audience, it can also endanger your equipment. Make sure all components that are connected directly and indirectly to the F.A.S.T system have sufficient power ratings, and that they don't distort because they're operating at their respective limits. Provide an undistorted signal to the system that doesn't have to be cleaned up by backing off the GAIN knob.

**4 Avoid ground loops!** Even if the signal-carrying circuit is balanced, redundant ground circuits in a single audio system may generate annoying humming. For example, you may encounter a ground loop when the mixer is grounded via a mains cord that isn't connected to the same mains circuit as the F.A.S.T system. To prevent this problem, always be sure to connect F.A.S.T and the mixing console to the same electrical circuit (that is, the same phase!).

**CAUTION: Never tape over the plug's ground terminal – this endangers lives!**

## 5 Troubleshooting

**The Power switch does not light up red after you switch it on.**

- 1 Check if the power cord is plugged into the Mains Input.
- 2 Check if the mains power supply is indeed providing current.

**The Power switch lights up red, but F.A.S.T is not producing sound.**

- 1 Check the cables that you have connected to the Line In and Mic In sockets.
- 2 Check if the signal sources (mixer, keyboard, CD-player) are on.
- 3 Is the Gain Line In or Mic In knob turned up?

**The signal appears to be distorted.**

- 1 Check the LED displays on your mixer. They should not be constantly in the red. If necessary, back off the volume at the mixer.
- 2 If the LED displays on your mixer are in the green, turn down the F.A.S.T's Gain Line In knob.

**Annoying humming.**

- 1 Check the cords that you are using to connect signal sources to F.A.S.T. Replace damaged cords.
- 2 If possible, connect F.A.S.T and the signal sources to the same electrical circuit (that is, the same phase!).

## 6 Technical Data

Frequency response +/- 3dB: 75 Hz –19 kHz  
 Frequency response –10 dB: 65 Hz –19 kHz

Axial sensitivity @1W/1m (half space): 103 dB  
 Max. SPL @ 1m (half space, 10% THD): 120 dB

Speaker:  
 Bass- /Mid: 1x 12"  
 Tweeter: 1" CD Horn 60°x 40°  
 Tweeter protection (passive):  
 Dynamic protective circuit

Power amp:  
 1x 300 W program @ 4 Ohm  
 1x 200 W RMS @ 4 Ohm

Connectors:  
 1 XLR combination Line In, balanced  
 1x XLR Through, balanced  
 1x XLR Mic In, balanced

Weight: 23 kg/50.6 lbs.

Dimensions (w x h x d):  
 14 1/4" x 21 1/4" x 14 1/2"  
 36 cm x 54 cm x 37 cm

General electrical data:  
 Protection class 1 (protectively earthed)  
 Max. current consumption:  
 1.5 A (230 V) 2.95 A (117 V)  
 Max. power consumption: 345 VA  
 Mains voltage range: +/- 10%  
 Ambient temperature range:  
 from 0° C to 35° C  
 Fuses:  
 250V/ T 1.6 A (220- 230 V )  
 250V/ T 3.15 A (117 V)

This is to certify that

## HK AUDIO® F.A.S.T

complies with the provisions of the Directive of the Council of the European Communities on the approximation of the laws of the Member States relating to electromagnetic compatibility (EMC Directive 89/336/EEC) and the low voltage Directive (73/23/EEC).

This declaration of conformity of the European Communities is the result of an examination carried out by the Quality Assurance Department of STAMER GmbH in accordance with European Standards EN 50081-1, EN 50082-1 and EN 60065 for low voltage, as laid down in Article 10 of the EMC Directive.



Stamer Musikanlagen  
 GmbH\*  
 Magdeburger Str. 8  
 66606 St.Wendel

A handwritten signature in black ink, appearing to read "L. Stamer". The signature is written in a cursive, flowing style.

Lothar Stamer Dipl.Ing.  
 Managing Director  
 St.Wendel, 04/02/03

\* Stamer Musikanlagen manufactures exclusively for HK AUDIO®.

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