

Film-Tech

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KT-60 SELF POWERED SUBWOOFER SYSTEM

Installation and Operation Manual

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WARRANTY INFORMATION

Equipment manufactured by KINTEK carries a limited warranty against defects in materials and workmanship for a period of two years from the date of purchase. Kintek will, at its option, repair or replace defective components provided the faulty equipment is shipped prepaid to Kintek with a Return Authorization number. Defects caused by modifications or misuse, or other damage caused by improper packing are not covered by this limited warranty.

Manufactured under one or more of the following patents

U.S. 3,681,618

3,714,462

4,404,427

Canada 1,153,701

Other patents pending

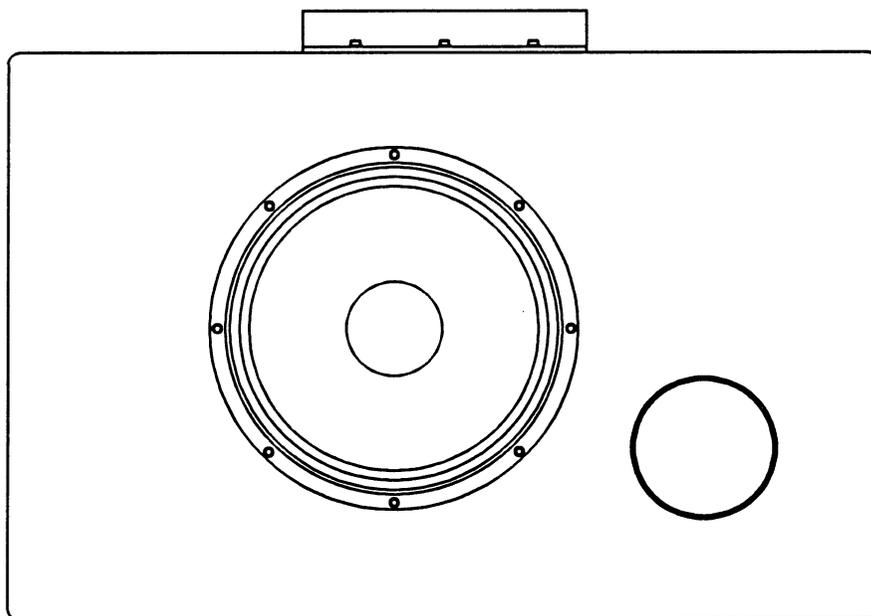
KT-60 Subwoofer System

Introduction:

The KT-60 Subwoofer System is specially designed to reproduce bass information from 20Hz to 100Hz. The KT-60 contains a 350 Watt power amplifier that is carefully matched to the characteristics of the speaker driver and the cabinet.

Specific features of the KT-60 include: thermal protection of electronics and speakers, over-travel protection of speaker cone, compressor to prevent clipping and distortion under high-signal conditions, and a custom-designed 15" speaker with 6-pound ceramic magnets contained in a heavy-duty frame.

The KT-60 is designed to reproduce the low frequency music and special effects which are found in Dolby® A, SR, and digital format films.



Specifications:

Input:..... 100k Ohms balanced via XLR-F connector.
Input For Full Output:.. 1 Volt rms
Freq. Response:..... 24Hz - 100Hz +/- 3dB.
Crossover Range:..... 40Hz -540Hz (adjustable).
Max. S. P. L.:..... 125 dBc at 40Hz @ 1 meter
(with kt-60 on the floor and against the wall).
(2 kt-60's side by side: 131 dBc at 40Hz @ 1 meter).
Output:..... 350 Watts rms continuous.
Dimensions:..... 36"W x 24"H x 16"D.
Power Req.:..... 120/240Vac, at 500 Watts.
Weight:..... 125 lbs.

Warranty and Repair: All equipment manufactured by Kintek carries a limited warranty against defects in material and workmanship for two years from the date of purchase.
"KINTEK" is a trademark of KINTEK, Inc.
Specifications are subject to change without notice.

KT-60 Subwoofer System Installation

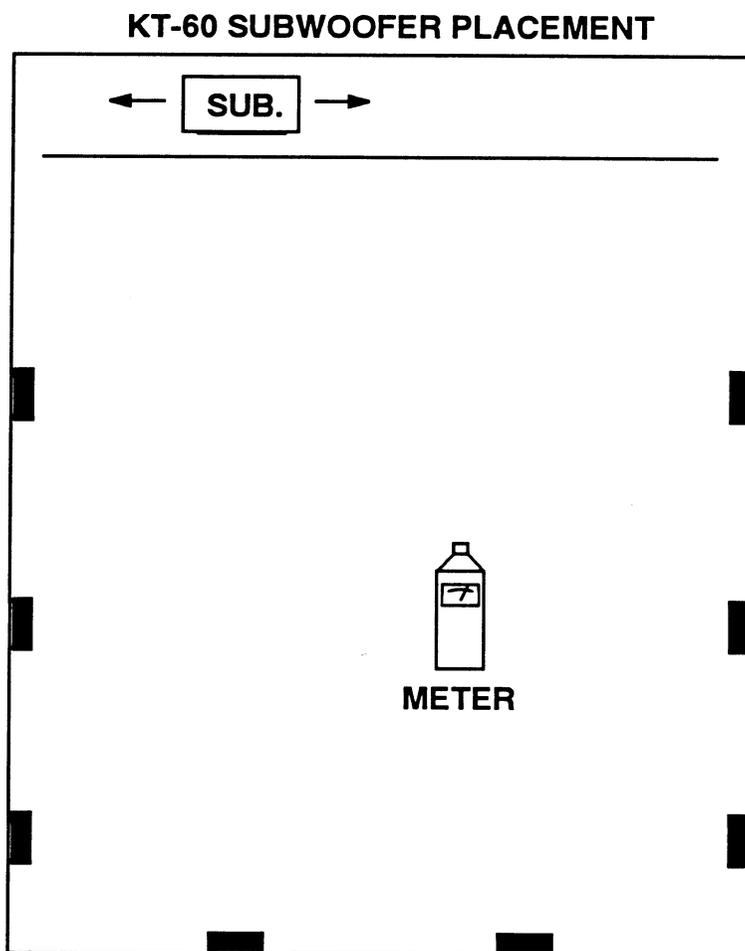
Placement:

The Kintek KT-60 should be placed in the front of the auditorium as this location will produce a bass sound field that assists the L/C/R channel loudspeakers. The exact lateral location behind the screen or on the floor in front of the screen should be determined by using pink noise and 1/3 octave spectral analysis.

While it is true that corner placement does increase output level, this room gain may induce a booming single-note quality to program material reproduced by the subwoofer. Using pink noise and a 1/3 octave analyzer, position the KT-60 along the lateral stage line where greatest 25Hz output is produced. Try to avoid excessive peaks in the 60Hz to 100Hz region.

The front of the KT-60 should not be obstructed by solid objects. Projection screen material and most stage curtains will not substantially attenuate subwoofer output level.

Avoid placing the KT-60 near sources of heat, high humidity or water.



KT-60 Subwoofer System Installation

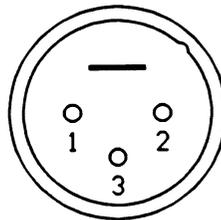
Input Connections:

Run an appropriate length of 2-conductor shielded cable between the KT-60 and theatre sound processor. 22 gauge wire is a recommended minimum.

For theatre sound processors with single-ended subwoofer outputs connect the shield and the black wire of the subwoofer cable to the processor Ground terminal. Connect the red wire to the LF or subwoofer output terminal.

For theatre sound processors with balanced outputs, connect the subwoofer cable as follows: Shield to Ground, black to minus (-) and red to plus (+).

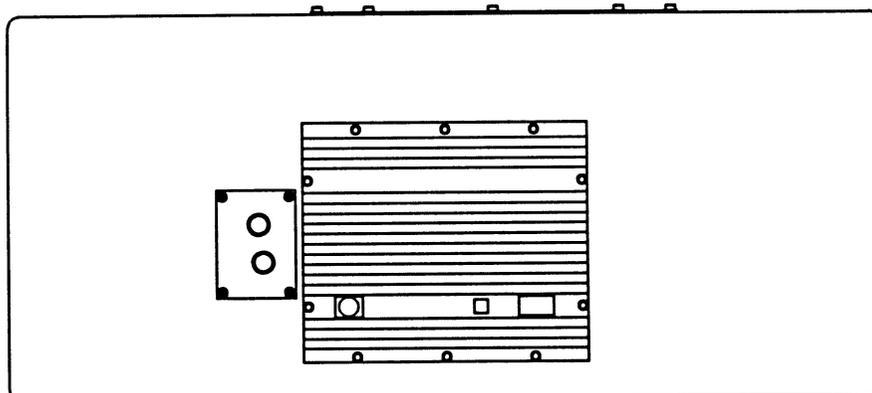
Attach an XLR-M connector to the subwoofer end of the cable, pin 1 is shield, pin 2 is minus (-), pin 3 is plus (+). Do not connect the metal XLR barrel to pin 1 (Ground).



Power Connections:

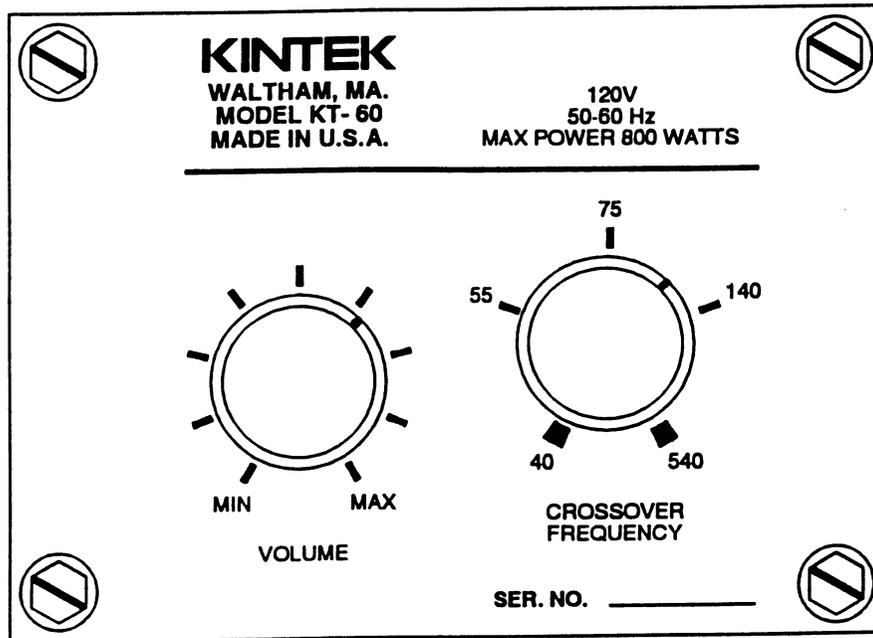
The KT-60 should be powered from its own line, that is, separate from the power lines for the projector, curtain motors, etc. A 3-wire or grounded AC line should be used. Do not use 3-to-2 adapter plugs to defeat the ground wire on the KT-60 power cord.

Each amplifier is equipped with a 10 Amp circuit breaker.



KT-60 Subwoofer System Operation

Input and Control Panel:



The KT-60 is equipped with a volume control and crossover frequency control to set level and frequency range of the system.

Volume Control: At MAX setting, the input voltage required for full output is -15dBv. For professional installations that use the +4dBu standard, start with a KT-60 volume setting about 1/3 rotation counter clockwise from MAX. Set your processor output to provide an adequate operating level.

Crossover Frequency Control: is continuously adjustable from 40Hz to 540Hz. Use a pink noise source and 1/3 octave spectrum analyzer to set a crossover point that produces a smooth blend between the KT-60 and the full range loudspeaker system in your installation, for most modern dual-15" loudspeaker cabinets this will probably be about 80Hz.

KT-60 Subwoofer System Troubleshooting

Low level output: Check that amplifier power cord is plugged in.

No output: Check status of circuit breaker on the amplifier and reset if necessary.

Boomy bass: check that HF cutoff is not set too high to produce an overlap of bass frequencies with stage loudspeaker. A HF cutoff of 80Hz is probably best. Use a 1/3 octave analyzer and pink noise source to obtain a flat response.