



ANCHOR Audio, Inc. (213) 533-5984
913 West 223rd Street, Torrance, Ca 90502



Liberty Owner's Manual



Foreward



Dear Customer

Thank you for choosing an Anchor Powered Sound System and the confidence you've placed in Anchor Audio, Inc. Be assured, all Anchor products are constructed of the finest quality materials and workmanship. Only state of the art design and circuitry is used to assure you many years of reliable service.

This Anchor Powered Sound System is not just another portable sound system. It has several unique features to give you maximum versatility and superior performance. Therefore, it is important that you read the owner's manual to fully understand its operation and obtain maximum benefit from your Anchor Sound System.



Jim Van Waay

President in behalf of all Anchor Employees.

Anchor Audio, Inc.
913 West 223rd Street
Torrance, California 90502
(213) 533-5984

Specifications

25.

Amplifier Type:	AC Models	Fully Complementary Output (MOSFET).
	Battery Models	Bridged, Complementary Output (MOSFET)
Load Impedance:	AC Models	4 ohms.
	Battery Models	3 ohms.
Signal to Noise Ratio:		90 dB -A below rated power
Total Harmonic Distortion:		≤ 0.25% @ rated power
Damping Factor:		≥ 200 @ 100 Hz
Slew Rate:		20 Volts/microsecond (Amplifier)
Battery Models:	Battery Type	Sealed Rechargeable Lead-Acid (two).
	Capacity (each)	12 Volt, 2.6 AH 12 Volt, 6.0 AH (Heavy duty)
Two Stage Recharger:	Primary Stage	Constant Current Voltage Sensing.
	Secondary	Constant Voltage Maintenance.
Battery Protect Circuits:		Automatic Turn-off at Critical Discharge Point.
Charge Indicatings:	Low Chg Level	"Power LED" Flashing.
	Fast Charging	"Battery Charge LED" Lit (constant).
	Fully Charged	"Battery Charge LED" Blinking (slowly).
Power Input:	Domestic	117 VAC, 60 Hz.
	Export	208-240 VAC, 50/60 Hz.
Dimensions:		20" x 11.4" x 9" (HWD) 50.8 cm x 29 cm x 22.9 cm
Weight:	AC Models	27 lbs. (12.3 kg)
	Battery Models	32 lbs (14.5 kg)

Specifications

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Rated Output Power:	AC Models	75 Watts Continuous Average Power.
	Battery Models	50 Watts Continuous Average Power.
Inputs:	Two Mic	Lo-Z (600 ohms) Balanced, Female XLR. Phantom Power 15 volts DC @ 1ma.
	One Auxiliary	Hi-Z (20K ohms) Unbalanced, 1/4" Phone Jack.
Input Sensitivity:	Microphone	1.6 mv RMS (-56 dBv) max. 0.1 v RMS (20 dBv).
	Auxiliary	0.165 volt RMS (-15.6 dBv) 10 v max. (+20 dBv).
Line Output:		Buffer isolated, Line Level, 600 ohm.
External Speaker Output:	"Switched"	
	AC Models	37.5 Watts Continuous Average Power @ 8 ohms.
	Battery Models	25.0 Watts Continuous Average Power @ 8 ohms.
	"Unswitched"	
	AC Models	75 Watts Continuous Average Power @ 4 ohms.
	Battery Models	50 Watts Continuous Average Power @ 4 ohms.
Tone Controls:	Treble	-12 dB to +10 dB @ 10KHz.
	Bass	-12 dB to +8 dB @ 100Hz.
Max. SPL @ 1 m @ Rated Power:	AC Models	Music Mode 109 dB Project Mode 116 dB
	Battery Models	Music Mode 105 dB Project Mode 112 dB
Speaker Complement:	Music Models	Horn Type H.F. Tweeter with 8" Woofer, crossed over @ 3K
	Project Models	Reentrant Horn with 8" Woofer, crossed over @ 1000 Hz.
Frequency Response:	Music Models	60Hz to 16KHz ± 3 dB
	Project Models	70 Hz to 8KHz ± 3 dB
Molded Construction:	RIM	High Density Foamed Poly-urethane (Reactionary Injection)
Enclosure Type:		Tuned Reflex.
Finish:		Textured Black.
Stand Receptacle:		Molded in Base, 1" diameter.

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Unpacking Instructions 2.

Inspection

Check unit carefully for damage which may have been incurred during transit. Each Anchor product is thoroughly inspected at the factory and is carefully packed in a special carton for safe transport.

All damage claims must be made directly and immediately with the freight carrier.

If you observe any damage to the shipping carton or product, you must notify the freight carrier immediately. Re-pack unit in its shipping carton as received and await inspection by the carrier's claim agent. Notify your dealer of the pending freight claim.

Retain shipping carton and packing materials.

Should you need to ship or transport your unit at a future date, the shipping carton and inserts were specifically designed to ship your unit safely.

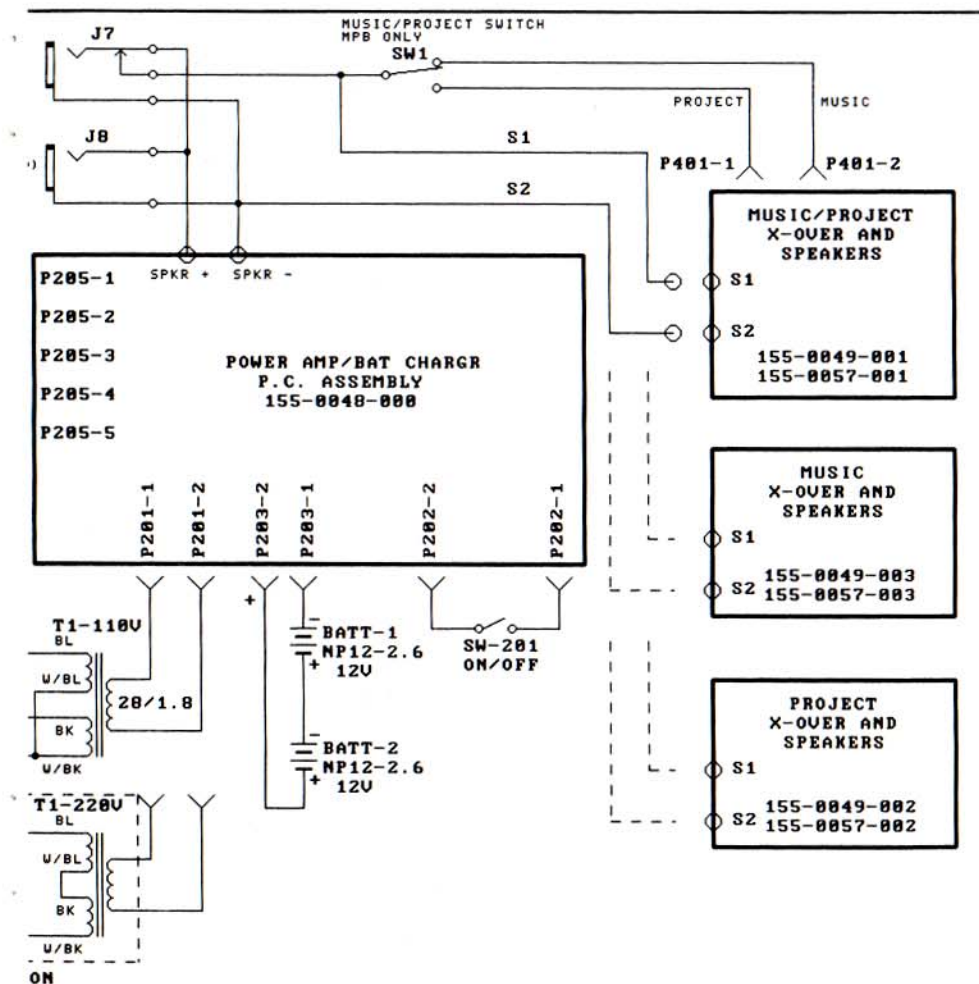
Return shipments to the factory

Should it become necessary to return your unit to the factory for service or upgrade, contact your dealer or Anchor's Customer Service Department to obtain a Return Authorization (R.A.) number. All shipments to Anchor Audio must be prepaid. C.O.D. shipments will be refused and returned at your cost.

Warranty Registration

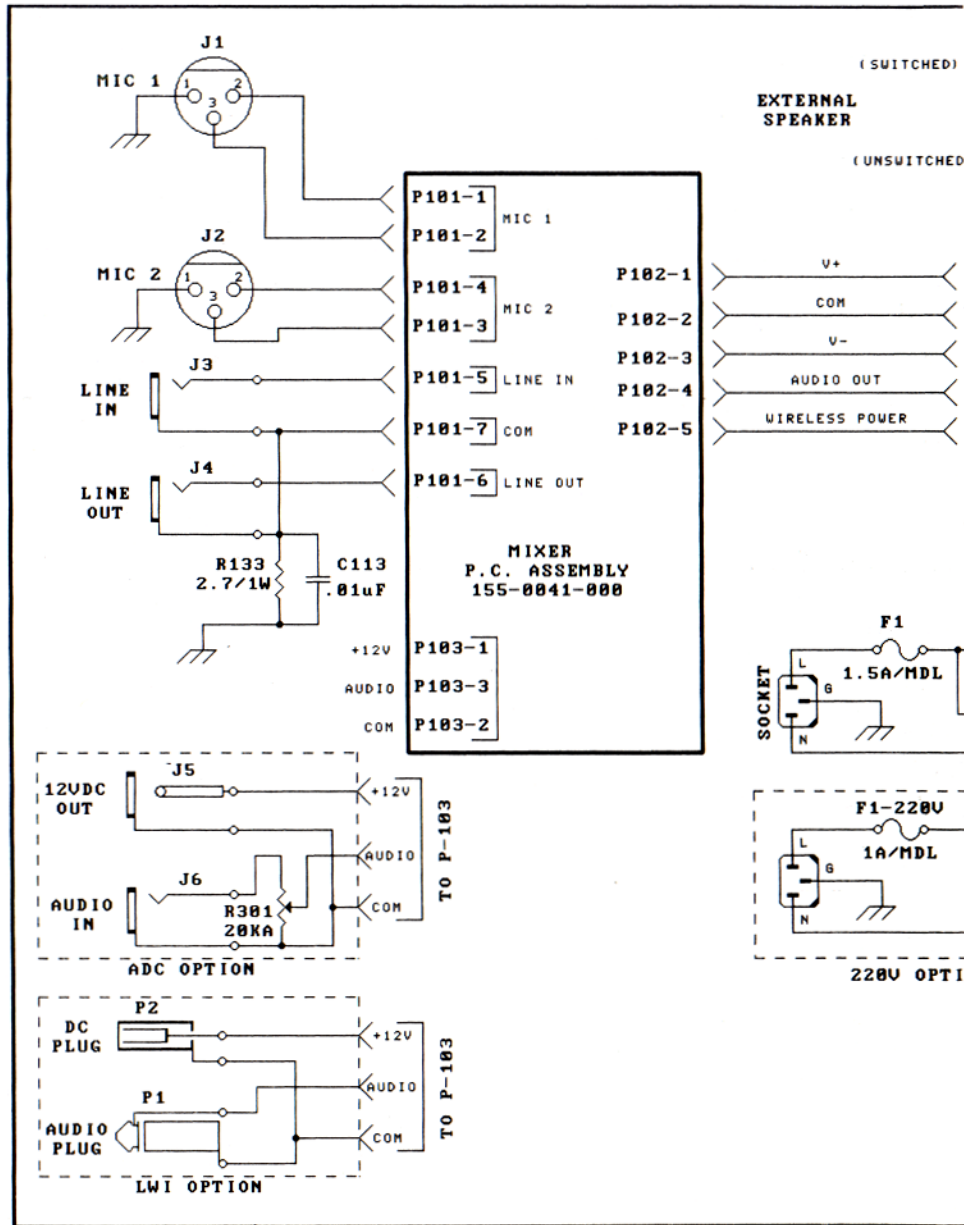
Please fill out the warranty registration card and return it to Anchor's Customer Service Department. This will officially register your unit for one full year of free warranty service.

Battery Models



ANCHOR AUDIO, INC
LIBERTY BATTERY SERIES
MPB-3500, MB-3000, AND PB-3000
LIBDCIM / 05/23/89

Interconnect Diagram 22.



Features 3.

- Discrete components with MOSFET amplifier for wide power bandwidth, inherent thermal stability, and overload protection.
- Enclosure is molded of foamed urethane which is rugged, lightweight, and totally weather-resistant.
- Perforated steel speaker grill protects the speakers.
- Speaker stand receptacle is molded into the bottom for easy mounting onto stand.
- Separate bass and treble controls.
- Auxiliary Input jack for playback of cassette tape player, radio, musical instrument, or other audio source.
- Line Output used to feed signal to another Liberty for daisy-chain operation or direct recording.
- External Speaker Outputs to drive additional unpowered auxiliary speaker.
- Two balanced mic inputs with phantom power to permit use of condenser-type microphones.
- Full one year warranty on all electronic circuitry and components, including labor.
- Battery models feature Anchor's reliable battery operation and proven battery protection and recharge circuitry.
- Built-in wireless microphone receiver with telescopic antenna is available as an option.

Description of Models 4.

The Liberty sound systems are specifically designed to either project sound with emphasis in the vocal range or reproduce full range sound for musical reinforcement. The various models will either operate on their internal rechargeable batteries or on AC power. All models are housed in a compact, rugged enclosure made of foamed urethane and given a black textured finish.

PA-3000 Sound Projecting (AC Operable)

The PA-3000 is designed and engineered to project sound with emphasis in the vocal range and operates on AC power only. The two-way speaker system has an efficient voice projecting reentrant horn and 8" bass speaker, coupled with a second order LC crossover network at 1000Hz. The low frequency crossover adds efficiency and gives added clarity. This efficient speaker system is driven by a 75 watt MOSFET amplifier resulting in a very powerful voice reinforcement system. The PA-3000 is ideally suited for addressing crowds either indoors or outdoors.

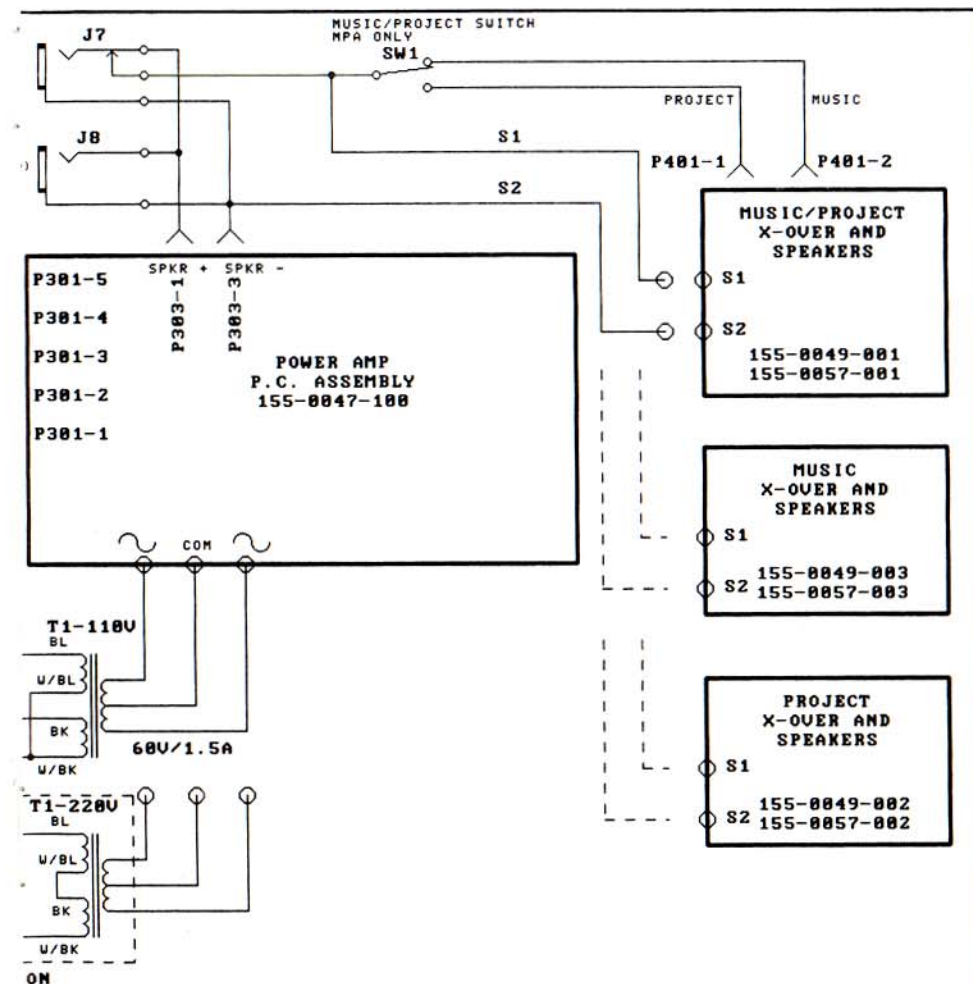
PB-3000 Sound Projecting (Battery/AC Operable)

The PB-3000 features the same acoustic qualities as the PA-3000 but operates on either its internal batteries or AC power. The batteries are rechargeable and will operate the system for 5-8 hours per charge. For 100% battery protection, an automatic cutoff circuit prevents excessive discharging of the batteries. The battery charger is built-in and automatically senses when the batteries are fully charged. The PB-3000 has a bridged MOSFET amplifier which can produce 50 watts of true audio power on battery operation.

MA-3000 Music Reproduction (AC Operable)

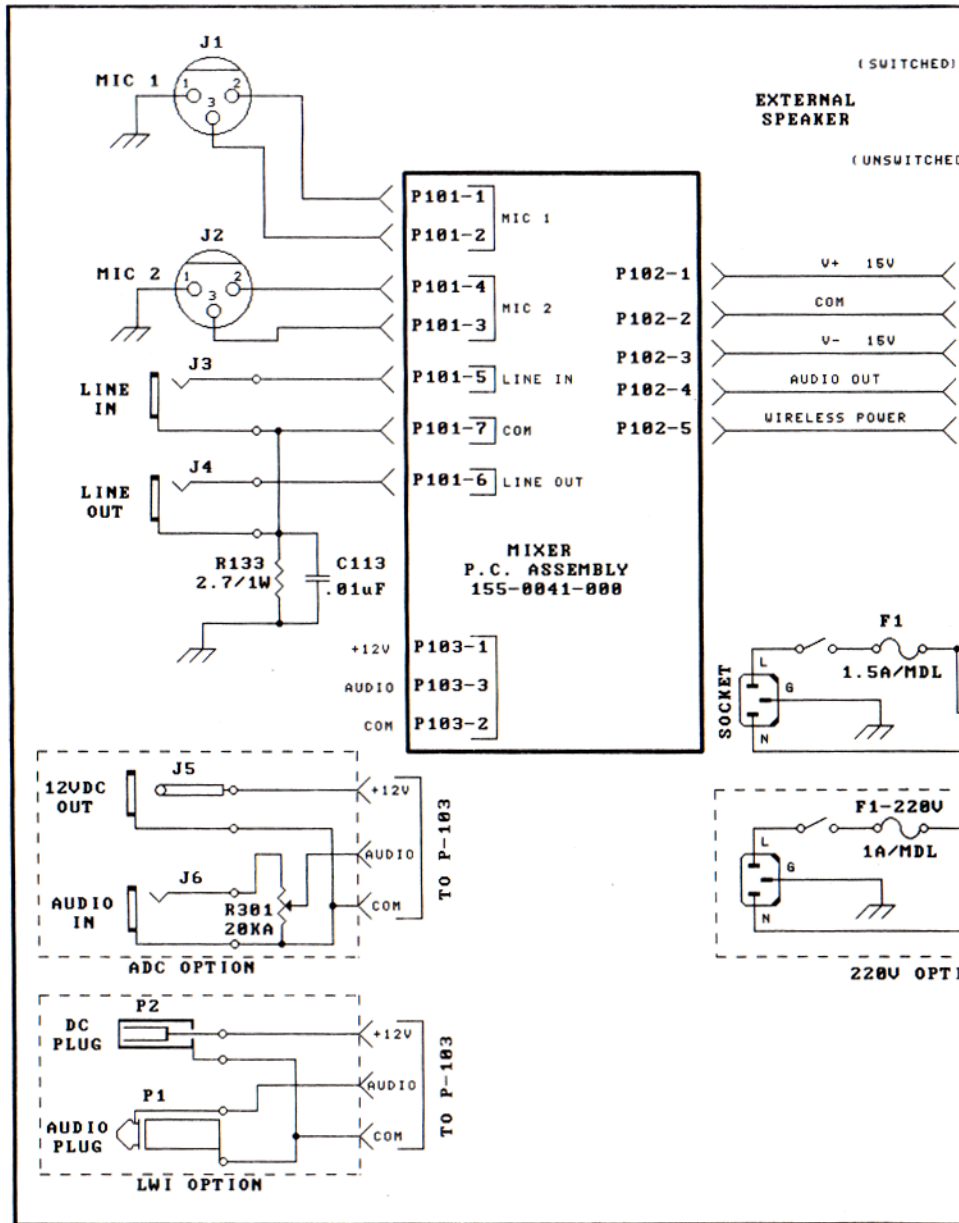
The MA-3000 is designed and engineered for quality music reproduction and speech reinforcement indoors. The MA-3000 operates on AC power only. The two way speaker system has a high frequency tweeter (horn-type) and 8" bass speaker coupled by a second order LC crossover network at 3000Hz. And

AC Models



ANCHOR AUDIO, INC
LIBERTY AC SERIES
MPA-3000, MA-3000, PA-3000
LIBACIN / 05/23/89

Interconnect Diagram 20.



Description of Models 5.

the tuned reflex enclosure extends the frequency range from 60Hz to 16KHz. The MOSFET amplifier provides 75 watts of undistorted audio power to make the MA-3000 a quality full range sound system.

MB-3000 Music Reproduction (Battery/AC Operable)

The MB-3000 features the same acoustic requisites as the MA-3000 with the added convenience of being battery and AC operable. The rechargeable batteries, built-in charger circuit, and battery protect circuitry are the same as the PB-3000. With the efficient bridged MOSFET amplifier (50 watts), the MB-3000 can reproduce music quality sound to levels in excess of 104 db on battery operation.

MPA-3500 Selectable-Sound Projecting or Music Reproduction (AC Operable)

The MPA-3500 is a combination of two sound systems in one; *selectable*...it can be an efficient sound projecting system with emphasis in the vocal range; or by flipping a switch; it can be a full range musical reproduction sound system. The audio features of the MPA-3500 are the same as the PA-3000 in "project" mode and same as the MA-3000 in the "music" mode. The MPA-3500 offers the best of both worlds where AC power is always available.

MPB-3500 Selectable-Sound Projecting or Music Reproduction (Battery/AC Operable)

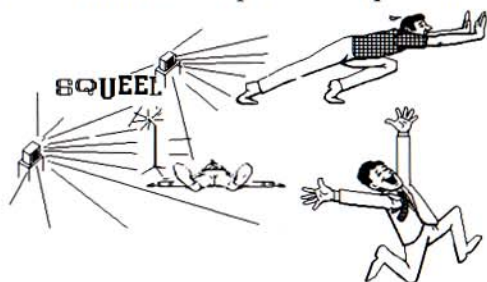
The MPB-3500 is the ultimate portable sound system; switchable to an efficient vocal reinforcement system in the "project" mode or a full range music reproduction system in the "music" mode with full performance on its internal batteries or AC power. For total portability and versatility, the MPB-3500 is the ultimate sound system; it can be used either indoors or outdoors, for speech or music, and can be operated with or without AC power.

Feedback Information 6.

To Prevent Feedback

ALWAYS POSITION THE MICROPHONE
BEHIND THE SPEAKER!

Feedback is a ringing, howling, or shrill sound that is self-generated by the sound system. This is the result of a resonant sound being projected from the sound system into the microphone; then this resonant sound is recycled back through the sound system and is amplified to a louder level. This loop will self-generate to a higher and higher level; the maximum volume is limited only by the capacity of the amplifier or destruction limit of the speaker components.



Caution: Feedback can damage your equipment and be hazardous to your hearing. To avoid feedback, always make sure volume is at minimum before connecting microphone. If feedback occurs, immediately direct microphone away from the speakers and reduce volume.

Selection of Microphone

For best performance, use quality low impedance microphones. For general purpose use, Anchor's MIC-84 is a very good low cost dynamic microphone. There are several microphone manufactures each having several models with specific characteristics for various applications. Consult your dealer for additional information and demonstration for a microphone that will best fulfill your requirement.

Options and Accessories 19.

LIBERTY COMPANION SPEAKERS

A companion speaker is the perfect extension to your LIBERTY Sound System. These speaker systems are comprised of the same speaker components and enclosure as the associated power unit. The speaker systems are rated at 8 ohms impedance and have 50 watt power capacity.

Model P-3001

The P-3001 is the matching companion speaker for Models PA-3000 and PB-3000 LIBERTY Sound Systems. It is designed for efficient sound projection with emphasis in the vocal range.

Model M-3001

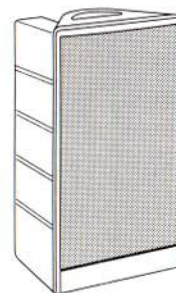
The M-3001 is the matching companion speaker for Models MA-3000 and MB-3000 LIBERTY Sound Systems. It is designed for full range audio reproduction, vocal and musical programs.

Model MP-3501

The MP-3501 is the matching companion speaker for Models MPA-3500 and MPB-3500 LIBERTY Sound Systems. The MP-3501 is a dual function speaker system; an efficient sound projecting system or a full range audio reproduction. The MP-3501 is equipped with the same "mode" selection switch (PROJECT or MUSIC) as the dual function Liberty Systems.

VL-003: Vinyl Slipcover

The VL-003 heavy duty vinyl slipcover fits all the LIBERTY units for dust and soil protection. It has a large side storage compartment for convenient storage of manuals, microphones, cables, or other accessories.



Options and Accessories 18.

MIC-84: Microphone



The MIC-84 is a dynamic, balanced, low impedance microphone with a unidirectional pick up pattern. The MIC-84 is a handheld microphone for general purpose applications. The MIC-84 has a privacy on/off switch and comes complete and ready to use, including a 20' (6.2m) cable with a black male and female XLR connector on each end. Also includes a padded swivel mic clip for mounting onto mic stand.

MSB-201: Microphone Stand and Boom

The Anchor microphone stand and boom (MSB-201) can be used to hold a microphone in most any working position. The boom can be unscrewed from the stand, so stand can be used as a floor mic stand. The adjustable height of the stand is from 36" to 63", and the length of boom is 33". The boom and stand collapse to a carrying size of only 4" x 4" x 36". Both are finished in non-glare satin black.

SS-350: Heavy Duty Speaker Stand

The SS-350 speaker stand is ideal for supporting and elevating the Liberty above the audience for better sound distribution. The stand is made of aircraft aluminum, weighing less than 7 lbs. and collapses to 4" x 4" x 38" for easy carrying. The 1 inch center post fits directly into the receptacle molded in the bottom of the Liberty for quick and easy mounting. The tripod legs extend 36" between leg tips for a stable stance and the height can be adjusted from 40" to 62". The stand can support loads in excess of 50 lbs. and is finished in satin black.

SC-25 or SC-50: Speaker Cables

Heavy duty speaker cable (18 ga. stranded with twine strain relief) in vinyl jacket with metal phone plug on each end. Model SC-25: length 25' (7.7m). Model SC-50: length 50' (15.4m).

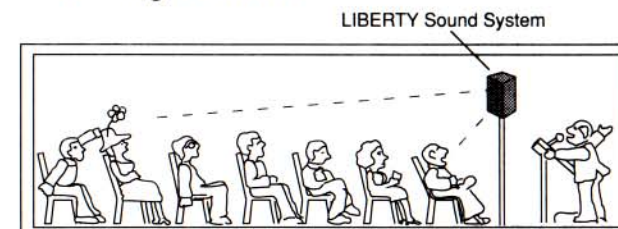
Set-Up 7.

7.

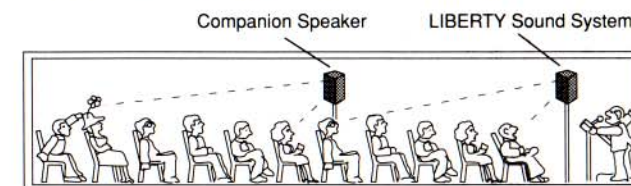
Setting up the Sound System

Positioning of the speaker/sound system is probably the most important consideration when setting up a sound system. Therefore, it is important that you be aware of some basic principles and keep them in mind during set-up.

- Position your sound system in front of the audience. This is especially important when a person is addressing the audience.



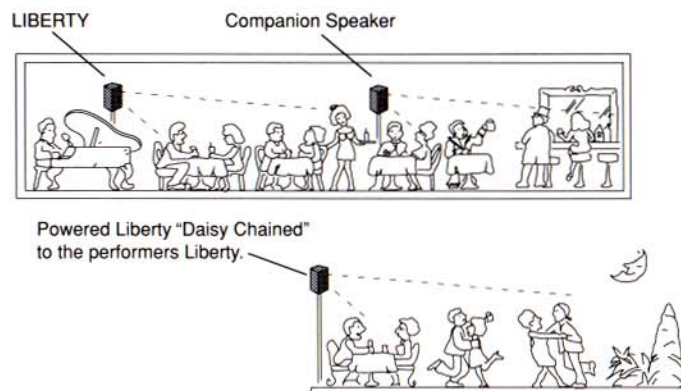
- Elevate the sound system so that the sound can be projected over the front listeners. This will permit sound to be projected to the listeners in the rear while avoiding over-powering the listeners in the front. The Liberty Sound System is easily and safely elevated above the audience by using the SS-350 Speaker Stand.
- For long and narrow audience seating arrangements, position your powered sound system in front and off to one side of the listeners. Then position an unpowered companion speaker mid-way back on the same side of the audience. Direct the speakers diagonally across the audience.



Set-Up

8.

- Square rooms, circular rooms, rooms with an abundance of glass, and reverberant rooms are troublesome when using a sound reinforcement system. The reflective surfaces in such rooms cause standing sound waves (reverberation) resulting in poor intelligibility. You will need to experiment with the positioning of speakers to minimize sound reflections back into the microphone and to avoid feedback. Operate the system at a minimum volume level to avoid reverberation. Also, try boosting the treble and attenuating the bass for improved clarity.
- “Daisy Chain” operation - There may be times when crowd size requires more than one Liberty Sound System or if the overflow crowd is in a separate listening area. To use more than one powered Liberty system, connect a shielded patch cord between the *Line Output* of the primary Liberty system to the *Aux Input* of the secondary Liberty system. The volume of the second Liberty is controlled by its auxiliary volume control. This is referred to as “daisy chain” operation. In addition, an unpowered companion speaker can be driven by each Liberty system.



Options and Accessories 17.

ADC: Audio Input and DC Output

The ADC is an auxiliary panel with a line level audio input & volume control and a 12 volt DC output jack (250 ma). It is ideal for use with an external wireless microphone system. The ADC is easily field installed, with no special tools or skills required. A special interconnect cable for use between the ADC and a wireless receiver is included.



BH-003: Heavy Duty Batteries (Battery Models only)

The heavy duty battery option will double the service time per charge and provide reserve power for musical program material. The BH-003 option will add approximately six pounds to the total weight and requires about two additional hours of charging time.

FL-3000: ADMIRAL Lectern

The ADMIRAL Lectern is a floor model lectern with a center console to accommodate a Liberty Sound System. The Liberty system is placed in the center console of the ADMIRAL Lectern rendering a floor lectern with its own sound system capable of covering an audience of more than 500 people. The ADMIRAL Lectern features a special shock-mounted microphone input (female XLR) to give more gain before feedback. The lectern is also equipped with Tilt-n-Roll casters for easy movement.



LM-618: Gooseneck Microphone for the Admiral

The LM-618 is an extra sensitive electret microphone mounted on an ultra-slim gooseneck (18") with a male XLR connector. The XLR connector plugs directly into the shock-mounted input of the ADMIRAL lectern. The Liberty sound system provides the phantom power required to operate the LM-618 microphone (power requirement 9-52 volts DC).



Exclusive Battery Protect and Recharge Circuits

- An automatic battery protect circuit prevents the batteries from being over-discharged. This circuit will automatically turn the unit "OFF" when the batteries approach their critical discharge point to prevent damaging the batteries.
- The built-in battery recharge circuit will automatically control the charge rate for optimum battery recovery and proper maintenance. The charger circuit will automatically reduce the charge rate to maintenance trickle-charge rate when the batteries are fully restored.

Expected Service Time Per Charge

The service time per charge will vary depending on the type of program usage (music or speech), volume level, and if an auxiliary speaker is used with the system. Factory test measurements were made with music input at 50% duty cycle (30 seconds on, 30 seconds off) to simulate average usage.

Service Time per Charge:

At low volume	9 to 12 hours
At medium volume	6 to 8 hours
At full volume	4 to 6 hours

Recharging Batteries

To recharge the batteries, plug the power cord into an AC outlet. The charging circuit will start charging the batteries (whether the unit is turned "ON" or "OFF") and will automatically govern the proper charge rate. The LED charge indicator will light indicating the batteries are being recharged at the fast charge rate. When the batteries are fully charged (approx. 6-8 hours), the charge indicating LED will start flashing. The flashing LED indicates that the charger has automatically switched to the maintenance trickle charge rate. The charger may be left plugged into the AC outlet continuously without damaging the batteries.

Installation

A professional installation should be neat and inconspicuous. Try to position the speaker systems where they will not be a traffic hazard. In most rooms they may be placed next to the side walls at the front of the audience. This provides several advantages: they are less conspicuous, the sound from the speakers is acoustically reinforced by reflection from the wall, and they are less likely to be bumped by passers-by. Dress the microphone, speaker, and power cables so they are out of the way and out of sight if possible. (Avoid running the microphone cable alongside the speaker or power cables.)

Operation

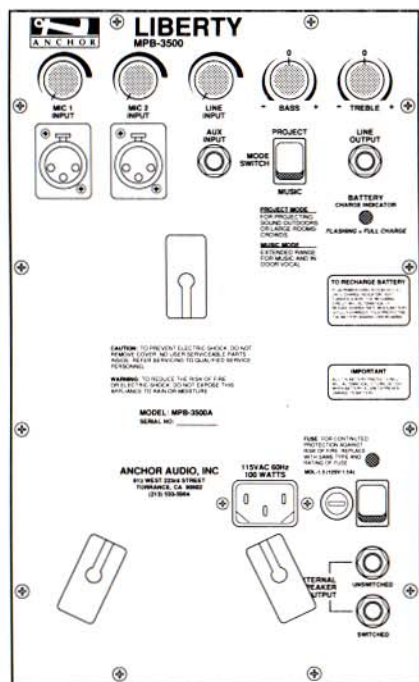
In preparation for events requiring sound reinforcement, it is a good practice to survey the area and facilities prior to the activity. Observe the audience seating arrangement and magnitude of the area. Remember that when people are present, they absorb sound and raise the ambient noise level which will require additional sound reinforcement. The sound system should reinforce the spokesperson so he will be clearly heard and understood, but should not be over amplified to take away from his natural performance.

Keep in mind, the best sound system set-up is when the audience is not conscious of a sound system being used.

When Setting Up

1. Make all connections securely and route all cables for tidy appearance and safe conditions.
2. Set all volume controls to minimum position before power is turned "ON".
3. Turn the sound system "ON" with power rocker switch, (red LED above the switch will light, and the red end of switch will be

- exposed). If other powered sound systems are connected to the Liberty, turn them "ON" also.
4. Have someone speak into the microphone, or feed an audio source such as a tape player into the *Line Input*. Then slowly turn up the appropriate MIC or LINE volume control until you reach the desired volume level. Adjust the volume of each input to the desired level.
 5. Adjust tone controls for desired tonal quality.
 6. If a wireless microphone is being used, be aware of feedback when walking in front of the speaker. Consult the operations manual of the wireless microphone for its operating instructions.



LIBERTY MPB-3500 Rear Panel

Battery Care and Maintenance

All battery operable LIBERTY Sound Systems are equipped with sealed lead-acid type batteries. Our selection of lead-acid batteries is the result of extensive laboratory testing and field evaluation of various types of rechargeable batteries. And the results have revealed the following merits of the lead-acid battery.

Merits of the Lead-Acid Battery:

- Very low internal impedance which enables the battery to deliver high peak currents upon demand.
- It does not form a memory service cycle with repetitive discharge/recharge cycles.
- It can recover 100% of its service cycle capacity with proper recharging.
- Battery has large service capacity versus physical size and weight.
- Extended number of recharge cycles (500 to 1000 recharges).
- Long lifetime service expectancy (3 to 5 years).
- Low replacement cost.

Battery Quality Control.

The batteries in your LIBERTY unit were subjected to stringent testing and have met all the specifications for final approval. These batteries were given three complete service cycles (discharge/recharge) while being continuously monitored and tested. The quality assurance department at ANCHOR has gone to great lengths to assure you many years of satisfactory service from these batteries.

CAUTION: For longer battery life, always store batteries in fully charged condition. Unit may be left plugged into AC continuously.

Wireless Microphone (option)

The wireless microphone receiver is installed in the rear panel and its output signal is fed directly into the mixing bus. The wireless mic can be used independently or be mixed with the other inputs.

Power is supplied to the wireless receiver when the Liberty is turned "ON" (red light behind panel will light). R.F. signal light (green) will light when transmitter is turned "ON" to indicate R.F. signal is being received from transmitter/microphone.

To use wireless microphone system:

1. Extend antenna.
2. Turn transmitter unit "ON".
3. While talking into microphone, adjust volume to desired level.

If red and green LED's are lit but there is no sound, make sure "MUTE" switch on transmitter is in the "OFF" position. If green LED does not light, check battery in microphone/transmitter.

Caution: *Be aware of feedback when you walk in front of speakers with wireless microphone. Always point mic element away from speakers. Consult the wireless microphone Owner's Manual for additional information.*

Microphone Inputs

The microphone inputs of the LIBERTY are XLR type jacks (female) with the corresponding volume control above the jack. The mic inputs are balanced low impedance (600 Ω) and each has phantom power so condenser-type microphones can be used. Use only low impedance microphones with your LIBERTY sound system. Also, they should be balanced to avoid picking up hum or other extraneous interference when using long mic cables. Anchor's MIC-84 is a balanced low impedance microphone with uni-directional pick-up pattern, for use in general purpose applications. (See options for additional information).

Auxiliary Input

The auxiliary input is a 1/4" phone jack adjacent to the mic jacks. The auxiliary input sensitivity is line level and is used for playback of tape player, musical instrument, VCR, radio, or similar audio source through the LIBERTY sound system. The auxiliary input can be used simultaneously with the microphone inputs for a composite program output.

Line Output

The line output (1/4" phone jack) is used for recording directly from the amplifier or it may be used to "daisy chain" other LIBERTY units together. The term "daisy chain" means to connect the *line output* of one LIBERTY System into the *auxiliary input* of another LIBERTY System. You now have two powered sound systems connected together with a common program input. This technique is frequently used for distributing sound to various rooms or for combining powered units to cover a large audience.

Note: *All auxiliary interconnections must be made with shielded cable to avoid hum, buzzing, or picking up radio station interference.*

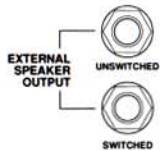


Treble and Bass Controls

The treble and bass controls are used to adjust the tonal quality desired and to compensate for various types of program material. For indoor operations, the treble on the "P" models should be reduced to keep the horn from over powering and rendering a 'tinny' sound. However, when used outdoors or for large audiences, clarity of speech and more efficient voice projection will be achieved if you increase the treble and attenuate the bass.

Note: Sometimes the tone controls can be useful to reduce feedback. If there is a slight ringing at the volume setting, try attenuating the respective tone control for improved stability.

External Speaker Outputs

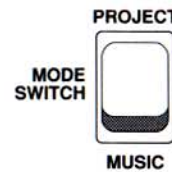


There are two external speaker output jacks located in the lower right corner of the rear panel marked "switched" and "unswitched". Use the "unswitched" jack when you want to operate an auxiliary speaker in conjunction with the Liberty speaker system. This mode of operation will render broader sound coverage and better sound distribution. Although most any speaker can be used as an auxiliary speaker; it is recommended that you use a speaker system of similar sound quality and efficiency. The appropriate companion speaker for your Liberty system is listed in the Options and Accessories section.

Note: When using an auxiliary speaker with battery models, additional power is required to drive the companion speaker which will shorten the battery service time.

When you want to power an auxiliary speaker without the accompaniment of the Liberty's internal speakers, use the "switched" output jack. When a plug is inserted into the "switched" output jack, the internal speakers are automatically disconnected and the amplifier power is routed to the auxiliary speaker.

Mode Selection Switch (Models MPA 3500 and MPB-3500)



The "mode" selection switch is the rocker switch located between the Aux Input jack and the Line Output jack. It has two positions either PROJECT or MUSIC. The "mode" selection switch selects whether the Liberty will operate as an efficient voice projecting system or a full range music reproduction system.

MUSIC Mode: In the MUSIC mode, a horn type tweeter is combined with the 8" bass driver and crossed over at 3000Hz. This mode of operation is used for singing/musical programs and indoor voice reinforcement.

PROJECT Mode: In the PROJECT mode, a reentrant horn is combined with the 8" bass driver and crossed over at 1000Hz. This mode of operation is used for efficient sound projection with emphasis in the vocal range. It is ideally suited for outdoor applications.

Note: When using the companion speaker MP-3501 with the Liberty, verify that the mode switch of both the Liberty and companion speaker are in the same mode position.

Cassette Tape Player (option)

The cassette tape player allows playback of pre-recorded material only. Functions of the tape player include; Fast Forward, Rewind, Eject, Track Select, and Volume control. It features auto reverse for continuous playback of source material. The player automatically releases the capstan when power to the unit is turned off (tapes may be left in player without damaging tape or player components).

The audio signal is fed directly into the mixing bus so that the playback material can be mixed with the other inputs of the Liberty.

Note: Use high-quality tapes with the cassette tape player. Periodically clean the tape heads using a head cleaning kit.