



A7

The Voice of the Theatre®

Limited Edition

MADE IN USA

Owner's Manual



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INTRODUCTION

ALTEC loudspeakers have been the standard of the professional recording, broadcast and theatre industries. These ALTEC loudspeakers are handcrafted and tested to meet ALTEC's standards – the most rigid in the industry.

In 1945, ALTEC introduced an amazing series of two-way speaker systems to the world of motion picture entertainment. Their success was instantaneous! Following prolonged competitive test, this series of speaker systems became the only commercially available sound for motion pictures approved by the Research Council of the Academy of Motion Picture Arts and Sciences . . . thereby, establishing the Voice of the Theatre as the “standard” of the entire industry.

The Voice of the Theatre. Known by name. Known by sight. Known by reputation. A legend in its own time. Once an exclusively professional product, overwhelming demand forced its being made available to those who insist upon its unparalleled presence and efficiency for their homes. The only way to duplicate the excitement inherent in the sound of the theatre – the Voice of the Theatre.

Excitement . . . drama . . . realism . . . emotion . . . Adjectives that describe the ways you feel during the film experience. The experience of sight – and of sound. The experience that is the Voice of the Theatre – a legend in its own time.

The legacy of the A7 is a famous one. Starting life purely as a cinema playback unit, it was soon in demand for use as a studio monitor and home reproducer. Many engineers still swear by the A7, and have made it their standard of comparison for everything audio. Very versatile and efficient, the A7 is ideally suited for use wherever good projection over long distances of wide-response material is required.



UNPACKING

IMPORTANT: Protect the Loudspeaker

The loudspeaker cone assemblies are fragile and should not be touched.

Step 1

Before removing the protective shipping material, look for obvious signs of shipping damage such as severely crushed corners or deep punctures that may have marred the speaker cabinet. If severe damage has occurred, immediately contact the shipping company to file a claim.

Step 2

Using a knife, carefully cut away any plastic which is holding the cardboard-encased speaker to the pallet.

Step 3

Use snips to cut the straps holding the cardboard-encased speaker to the pallet.

Step 4

Open top of box and then slide the box up off of the speaker. The grill and horn mounting brackets are packaged separately inside the shipping box.

Step 5

Remove the protective cardboard, foam, and plastic packaging material.



IMPORTANT: Use Caution when Moving the Loudspeaker

Because each A7 weighs approximately 200 pounds, use caution when moving the loudspeaker to avoid personal injury. Use multiple people or a dolly and protective blankets when moving the loudspeaker off of the pallet and to its final location.

IMPORTANT: Retain the Packaging Material

If there is a need to return the loudspeaker under warranty conditions, you will need the packaging material to properly repackage the loudspeaker for transit.

COMPONENTS

The following components are contained in the A7 loudspeaker's shipping container.

Cabinet – Model 828

This A7 Loudspeaker cabinet enclosure is hand made from 13 layer Baltic Birch and covered with a durable black splatter finish.

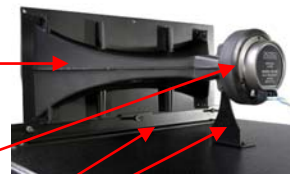


Low Frequency Woofer – 15" Model 515-8G

Molded cone. 8 ohm impedance.

High Frequency Sectoral Horn – Model 511B

Die cast aluminum 90° X 40° sectoral horn.



High Frequency Compression Driver – Model 902-8T

Aluminum diaphragm. 8 ohm impedance.



Front & Rear Mounting Brackets

Used to mount the horn assembly on top of the loudspeaker cabinet.

Crossover Network – Model N-900A

900 Hz high quality air-core inductor with low-loss polypropylene capacitors. The dial adjusts the relative loudness of the high frequency driver.

Binding Posts – Cardas ACBP-S

Two pair. Non-magnetic, billet Brass, short binding post, Rhodium over Silver plate. Billet brass nut, Gold plate. Glass filled nylon insulator. ALTEC ships the A7 jumpered for mono wiring. Simply remove the jumpers for bi-amplification. Binding posts accept either spades or banana plugs.

Grill

Fabric grill with metal ALTEC logo which inserts into the bass reflex port.



Manual

This document which contains product use and warranty information.

ASSEMBLING

IMPORTANT: Finish Assembly Before Connecting to Amplifier

For protection, this A7 loudspeaker is shipped with the horn assembly fixed inside the cabinet. For optimum sound quality, follow the assembly steps below for repositioning the horn assembly on top of the loudspeaker cabinet.

Step 1

If you would prefer to keep the horn assembly positioned inside of the cabinet, please proceed to the next section "Placing Stereo Loudspeakers".

Step 2

Remove the rear panel by using a 5/32" hex key to remove the bolts around the perimeter of the rear panel. Be aware that the crossover network is attached to the rear panel and that wires connect the crossover network to the drivers in the cabinet. Take care not to apply tension to those connecting wires.

Step 3

Reach in behind the high frequency horn assembly and disconnect the wires.

Step 4

Support the horn assembly during removal. Using a 3/8" socket or wrench, gently remove the nuts, washers and bolts holding the horn assembly inside the cabinet. Keep track of the nuts, washers and bolts for later use.

Step 5

Attach the front mounting bracket to the pre-drilled holes on top of the loudspeaker using the supplied bolts.

Step 6

Attach the horn mounting bracket to the sectoral horn to create the horn assembly.

Step 7

Position the horn assembly on top of the cabinet over the pre-drilled holes. Using a 3/8" socket or wrench, attach the horn assembly to the cabinet using the same bolts, washers and nuts.

Step 8

Unscrew the plug on the top of the rear panel. Thread the high frequency horn assembly wires through the unplugged hole on the top of the rear panel.

Step 9

Reattach the rear panel by using a 5/32" hex key to replace the bolts around the perimeter of the rear panel.

Step 10

Reconnect the horn assembly wires as before, ensuring that the dark (blue) wire is connected to the negative terminal and that the light (yellow) wire is connected to the positive (+) terminal. The positive (+) terminal is marked and is on the right side of the terminal block. Improper wiring of the horn assembly may result in the speakers being out of phase.

Step 11

Insert grill over the bass reflex port.

PLACING STEREO LOUDSPEAKERS

If the speakers are too closely spaced, as in a single enclosure that houses two speakers only a few feet apart, the time and intensity difference is so small that spatial quality is severely limited. Except in a very small room, eight feet is considered minimum spacing between speakers for good stereo.

In a two-channel system, good stereo listening begins a distance in front of the speakers equal to their separation, and continues for twice this distance. For example, if the speakers are placed 8 feet apart, the best listening area extends from 8 to 16 feet in front of the speakers.

CONNECTING

IMPORTANT: Check your Amplifier's Impedance and Power Specifications

This A7 loudspeaker has an 8 Ohm (Ω) input impedance and is designed to handle continuous input power levels of up to 200 Watts RMS.

Do not connect this loudspeaker to an amplifier rated at more than 200 Watts RMS per channel; significant damage to the loudspeaker could result.

IMPORTANT: Wire Size

High quality commercial 14 AWG, stranded, insulated wire may be used for connection of this ALTEC loudspeaker. This is considered minimum size wire for speaker/amplifier connections up to 30 feet. For wire runs longer than 30 feet, 10 AWG or larger wire is recommended. The binding posts on this ALTEC loudspeaker accommodate either banana plugs or spade connectors, although bare wire can also be used.

Step 1

For bare wire without banana plugs or spade connectors, strip $\frac{1}{2}$ " of insulation off of both ends of the speaker wire if it has not already been done.

Step 2

Connect one end of the marked wire (usually marked with a colored pattern on its insulation) to the positive (+) speaker terminal post. If using spade connectors or bare wires, tighten the nut down securely.

Step 3

Connect one end of the non-marked wire to the negative (-) speaker terminal post. If using spade connectors or bare wires, tighten the nut down securely.

Step 4

Lay out the wire over to the amplifier.

Step 5

Connect the other end of the marked wire (refer to step 2) to the positive (+) 8Ω terminal on the amplifier.

Step 6

Connect the second non-marked wire to the negative (-) 8Ω terminal on the amplifier.

Step 7

Power up the amplifier and enjoy the great ALTEC sound.



SPECIFICATIONS

Frequency response <i>±10 dB</i>	35 Hz to 22 kHz
Low frequency roll-off <i>-3 dB</i>	54 Hz
System power capacity <i>Rating based on test signal of continuous pink noise, per IEC spectrum for two hours duration.</i>	200 W
Sensitivity <i>1 watt at 1 meter</i>	97 dB
Nominal impedance	8 ohms
Crossover frequency	900 Hz
Nominal coverage	90° horizontal, 40° vertical
System polarity	Positive voltage to RED produces forward cone motion
Binding Posts	Two pair. Jumpered for mono wiring. Bi-amp capable. Accepts either spades or bananas.
Finish	Black, abrasion resistant splatter
Dimensions (W x D x H)	30 x 24 x 54 inches
Net system weight	170 lbs

WARRANTY

30-Day Satisfaction Guarantee

If for any reason you decide that this A7 loudspeaker does not meet your expectations, you may return it to ALTEC (at ALTEC's expense) using the original packaging material within 30 days of receipt. You retain the risk of loss until the goods are received by Altec, accordingly, you should insure the A7 loudspeaker shipment for your benefit. For additional information and to receive a Return Merchandise Authorization (RMA), please contact ALTEC using the information below.

One-Year Warranty on Components

ALTEC warrants to you, the original purchaser, that for one year from the date you receive the A7 loudspeaker, the A7 loudspeaker shall not suffer loss of functionality due to manufacturing defects in any A7 loudspeaker component. ALTEC's sole obligation and your sole remedy under this one-year warranty is that ALTEC shall provide you, the original purchaser, with a replacement part and installation instructions to replace any component of the A7 loudspeaker that suffers loss of functionality due to manufacturing defects within one year of the date you receive the A7 loudspeaker. ALTEC shall deliver replacement parts and installation instructions by common carrier, and shall additionally provide you a pre-paid shipping box for returning the defective part.

This one-year warranty does not cover cosmetic defects or cosmetic problems resulting from transportation or handling.

If You Are Having Trouble

Your ALTEC loudspeaker is a precision instrument, responding with high accuracy to the variations in electric current produced by other components in your system. Extraneous noise such as hum, rumble, or hissing do not originate in the loudspeaker. If you experience difficulty in realizing the fine performance built into your ALTEC loudspeaker, you may contact us directly.

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