



# OMNI-PURPOSE® 30 WATT HORN LOUDSPEAKERS

AP-30, AP-30T(C)  
AP-30T-25

TWO



AP-30 Series

## TECHNICAL SPECIFICATIONS

|                            |  |
|----------------------------|--|
| <b>Models:</b>             | AP-30, AP-30T(C), AP-30T-25  |
| <b>Power Rating:</b>       | 30 Watts continuous  |
| <b>Frequency Response:</b> | 300-12,000 Hz (nominal)<br>500-4,500 Hz (± 5dB)  |
| <b>Sensitivity:</b>        | 126dB 30 Watts (peak)<br>121dB 30 Watts/1 Meter (avg) 500-4500 Hz<br>108dB 1 Watt /1 Meter (avg) 500-4500 Hz |
| <b>Dispersion Angle:</b>   | 60° (-6dB, 2000 Hz octave band)  |
| <b>Weight:</b>             | AP-30 = 4.5 lbs (2.0kgs)<br>AP-30T = 5 lbs (2.3kgs)<br>AP-30T-25 = 5 lbs (2.3kgs)                            |
| <b>Finish:</b>             | Baked epoxy  |
| <b>Dimensions:</b>         | 10" W x 11" H x 10½" D   |

## ARCHITECT AND ENGINEER SPECIFICATIONS

Loudspeakers shall be Atlas Sound Model \_\_\_\_\_ [AP-30 or AP-30T(C) AP-30T-25] or approved equal. Each loudspeaker shall be equipped with an integral compression driver within waterproof housing. The loudspeaker unit shall be constructed of structural aluminum with double re-entrant acoustic path and exponentially-flared outer bell. Power handling capability shall be 30 watts continuous. Frequency response range shall be 300-12,000 Hz (nominal), 500-4,500 Hz (+5dB). Sound pressure level shall be 121dB (30W/1M), 108dB (1W/1M). Sound dispersion angle shall be 60 degrees. Model AP-30 shall have voice coil impedance of 8 ohms. Models AP-30T and AP-30TC shall have impedance selection of 2500, 1300, 666, 333, 167, 89, 45 ohms for 25, 70.7, or 100V line. Power taps shall be available at .9, 1.8, 3.7, 7.5 and 15 watts for 25V line; 2, 3.8, 7.5, 15 and 30 watts for 70V line; 4, 7.7, 15 and 30 watts for 100V line. Model AP-30T-25 shall have selection of 500, 250, 125, 83, 42, 21-ohms for 25V line. Power taps shall be available at 1.2, 2.5, 5, 7.5, 15, 30 watts. Loudspeaker shall be furnished with mounting bracket allowing adjustment on the vertical and horizontal planes and shall include provisions for surface or strap mounting. Wiring terminals shall be enclosed. Units shall be weatherproof and constructed of metal and ABS plastic. Finish shall be grey or beige (C) baked epoxy as indicated. Dimensions shall be 10" W x 11" H x 10½"D.

## FEATURES

- Superior intelligibility for voice and tone signaling
- Wide frequency response for optimum sound quality
- Environment resistant for outdoor & indoor use
- Omni-purpose mounting bracket for precise positioning
- Choice of 8-ohm or transformer equipped models for versatile 25, 70.7, or 100V line applications
- U. S. Trademark design is world recognized for quality and dependability
- Available in grey or beige (C) finish where noted

## APPLICATIONS

All-purpose, environment resistant 30-Watt AP-30 Series loudspeakers provide cost effective high-intelligibility voice and signal transmission for high power indoor and outdoor public address, intercom, security, alarm, or industrial signal systems. Units incorporate high-efficiency compression drivers to project through high ambient sound levels, over long distances and in wide open areas with fewer loudspeakers. The AP-30 Series is renowned in the industry as the "professional standard" for applications such as commercial buildings, distribution centers, industrial warehouses, institutions, civic centers and recreational facilities.

## GENERAL DESCRIPTION

The 8-ohm Model AP-30 and transformer-equipped Models AP-30T and AP-30T-25 are double re-entrant loudspeakers which deliver 30 watts of continuous power handling, superior intelligibility and unparalleled audio conversion-efficiency. The AP-30 Series operates within a nominal frequency range of 300-12,000 Hz and offers a sensitivity of 126dB at rated power to provide clear voice and signal communication.

Models AP-30T and AP-30T-25 each feature an integral transformer to meet a variety of distributed system needs. The AP-30T is equipped with a versatile, 3-way, 25, 70.7, 100V line transformer, while Model AP-30T-25 includes a 25V only line transformer. Transformers are adjustable using Atlas Sound's exclusive Vari-Tap® Connect Center which features a 7-position, watts / impedance selection switch. The labor saving Vari-Tap terminal is screwdriver adjustable and includes a protective cover with built-in strain relief.

The trademarked square bell design signifies Atlas Sound quality and reliability. The Omni-Purpose mounting bracket (included on all models) allows precise positioning in the vertical and horizontal planes with a single adjustment and provides for installation of the loudspeaker on conventional surfaces or by strap-mounting to I-beams or pillars. AP Series loudspeakers are U.S. made to assure superior service reliability. Weather-resistant construction is metal and matching ABS plastic with metal components finished in grey epoxy (standard) or beige epoxy if suffixed with (C) where noted.

## ACCESSORIES



**BX-1A.** Vandal Resistant Cover Plate for Armored Cable and Conduit Connection. Constructed of Cast Aluminum.



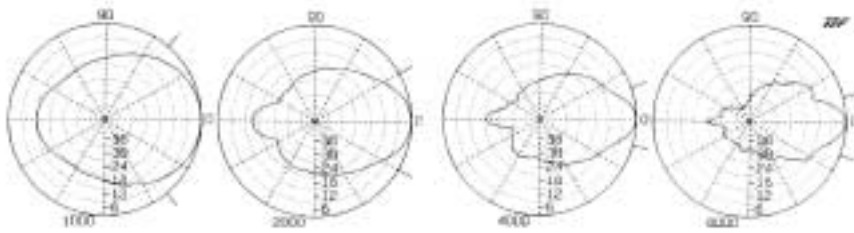
**APXB-G.** Optional mounting base for a standard 1-gang  
**APXB-N.** 2-gang, or 4" sq. E.O. box. (G-Grey, N-Neutral)

Specifications subject to change without notice



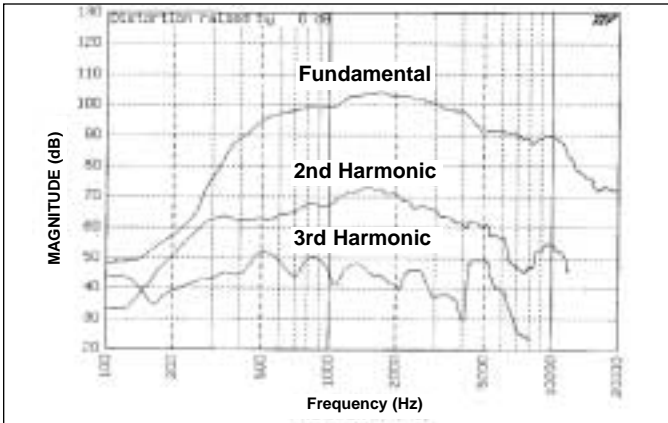
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A.  
TELEPHONE: (800) 876-3333 / FAX (800) 765-3435

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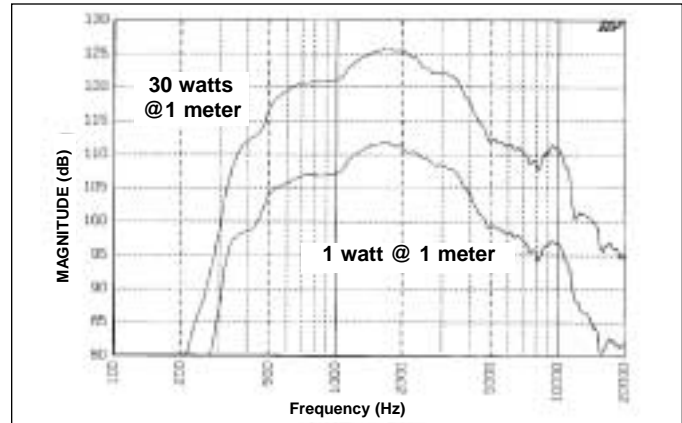


Polars Are Normalized To Zero On Axis

| Frequency (Hz) | Q     | Di    | Beamwidth (Degrees) |
|----------------|-------|-------|---------------------|
| 500            | 3.09  | 4.89  | 160                 |
| 1000           | 7.33  | 8.65  | 100                 |
| 2000           | 17.84 | 12.51 | 60                  |
| 4000           | 35.02 | 15.44 | 35                  |
| 8000           | 48.15 | 16.83 | 35                  |



AP-30(T) (Harmonic Distortion - 1.5 watts @ 1 meter)

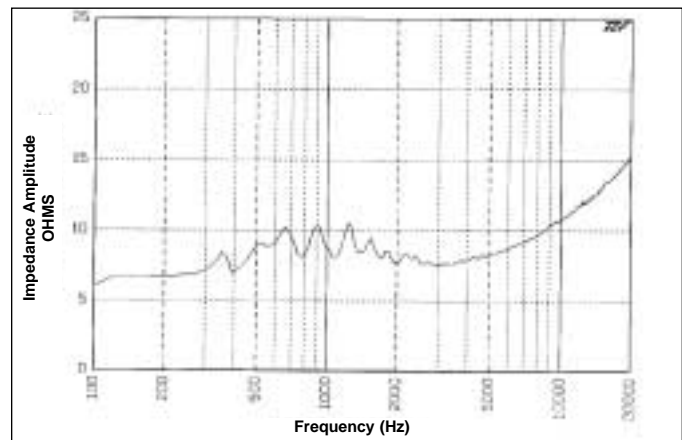


AP-30(T) Frequency Response

**DRIVER PROTECTION:** The horn loudspeaker should not be operated at frequencies outside the specified range, especially below horn cut-off. It is suggested that any program material be high-passed at 300 Hz with a 6dB per octave filter. This can be done by a low level filter at the amplifier input or by a series capacitor at each loudspeaker (See *Typical Capacitor Values Chart*).

| TYPICAL CAPACITOR VALUES |              |              |               |
|--------------------------|--------------|--------------|---------------|
| 8 Ohm Driver             | 25 Volt Line | 70 Volt Line | 100 Volt Line |
| 70 mfd                   | 30 mfd       | 4 mfd        | 2 mfd         |

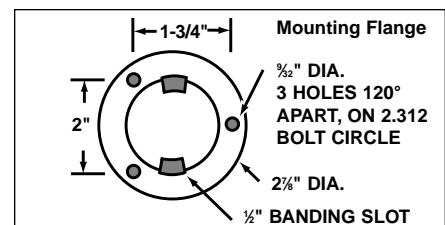
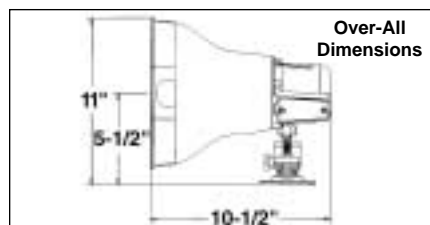
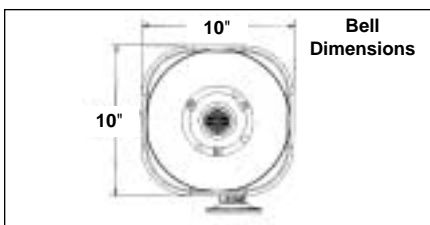
Electrolytic capacitors can be used but they must be non-polarized



AP-30 (Impedance Sweep)

| Switch Position | AP-30(T)(C) Vari-Tap® Control Connect Center Xfmr. Power Taps |               |              | AP-30T-25 Xfmr. Power Taps   |             |
|-----------------|---|---------------|--------------|------------------------------|-------------|
|                 | Impedance Watts (Ohms) @ 25V                                  | Watts @ 70.7V | Watts @ 100V | Impedance Watts (Ohms) @ 25V | Watts @ 25V |
| 1               | 2,500   | —             | 2            | 4                            | 500         |
| 2               | 1,300   | —             | 3.8          | 7.7                          | 250         |
| 3               | 666   | 0.9           | 7.5          | 15                           | 125         |
| 4               | 333   | 1.8           | 15           | 30                           | 83          |
| 5               | 167   | 3.7           | 30           | X*                           | 42          |
| 6               | 89  | 7.5           | X*           | X*                           | 21          |
| 7               | 45  | 15            | X*           | X*                           | —           |

\*Do not use



Atlas Sound products are designed and tested in our well-equipped research laboratory which contains a fully anechoic chamber, complete analog Bruel & Kjaer measurement equipment and Techtron® TEF 20® audio analyzer. Atlas Sound is proud to be a beta site for TEF software.

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