



# UL LISTED VOICE/TONE™ EMERGENCY LOUDSPEAKERS

VT/VTF Series



VT Series



VTF Series

## FEATURES

- Patented Emergency Loudspeakers Available in 8-Ohm, 70.7V, and 25V Versions
- Units Meet or Exceed UL Standard 1480 for Fire Protective Signaling Systems when Used with Compatible Control Equipment
- Durable, Die-Cast, Water-Sealed Housings Withstand Vandalism, Vermin, Moisture, Corrosion, and Vibration
- Easy and Low Cost Installation Via Standard E.O. Boxes
- Choose from Surface or Recessed Models in Red or Neutral Gray Finish
- All Models Produce High Level Output, Optimum Intelligibility, and Effective Dispersion
- Ideal for Reliable Voice/Tone Signaling in Public Area Emergency Communications and Heavy-Duty Industrial Applications

## APPLICATIONS

Employ patented, UL Listed Voice/Tone™ audible signaling devices in protective warning and intercom systems, for public area emergency communications, and as communication system loudspeakers in multi-occupancy and extended space areas (i.e., high-rise residences, public buildings, healthcare and educational facilities, shopping areas, athletic clubs, transportation terminals). All units are suitable for stationary or mobile use, indoors or outdoors. High-power, 15-watt models are ideal for use in commercial and heavy-duty industrial applications.

When used with compatible control equipment, VT/VTF Series comply with UL Standard 1480 (Speakers for Fire Protective Signaling Systems) and California State Fire Marshal (Title 19). Models with special modifications to meet New York City MEA (Calendar no. 57-74-SA) and UL Canada are also available as standard product. Contact factory for proper model designation and price.

## GENERAL DESCRIPTION

Through proven performance, patented VT/VTF Series have earned worldwide acclaim for service reliability. These cost-effective units offer compact size, functional flexibility, optimum intelligibility, effective sound distribution, and high-level output. All models contain a high-efficiency compression driver with maximum acoustic conversion efficiency. (A quality which reduces number of units needed to attain specified sound pressure levels and provides substantial savings in amplification-power requirements and labor costs.) Die-cast, water-sealed construction withstands vandalism, vermin, moisture, corrosion, and vibration during indoor or outdoor use. Selection includes a basic 8-ohm version and 70.7 or 25-volt transformer models with DC blocking capacitor (C) where noted. All models terminate via barrier strips. VT Series models are surface-mount units; VTF Series are flush-mount units for recessed installation. VT Series mounts standard 4" E.O. Boxes; VTF Series mount 4" or 4 1/8" SQ backboxes and require model AR or MR adapter rings respectively (order separately) Optional mounting accessories are offered including: indoor and outdoor enclosures, a bi-directional housing, adapter plates and rings. Suffix model with color: Red (R) or Neutral Gray (N). Ex: VT-157UCS.

SIX

*Specifications subject to change without notice*



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## VT / VTF SERIES ACCESSORIES (ORDER SEPARATELY)

### ENCLOSURES

**Model SE.** Surface-mounting exterior backbox provides weatherproof installation for VT Series loudspeakers. Unit is tapped for  $\frac{1}{2}$ " conduit and includes a weatherproof gasket. Dimensions:  $4\frac{1}{4}$ " SQ x 2" D (108 x 51mm). Weight is .75 lbs (.35 kg). Housing is die-cast zinc finished in a durable epoxy. Suffix model with color designation: Red (R) or Neutral Gray (N).

**Model SI.** Surface-mounting indoor backbox for SVT Series models mounts to any single or double-gang backbox for concealed conduit applications. CRS unit includes  $\frac{1}{2}$ " conduit knock-outs (three on each side; five on rear). Epoxy-finished surface. Dimensions: 4" SQ x  $1\frac{1}{2}$ " D (102 x 38mm). Weight is .7 lbs (.3 kg). Suffix model with color designation: Red (R) or Neutral Gray (N).

**Model TVTA.** Twin housing for bi-directional mounting of two independently powered VT Series models. Unit is recommended for wall or ceiling installation in corridors and walkways. Each unit includes  $2\frac{3}{4}$ " D (70mm) housing with base and adapter plate for parallel mounting to any 4" SQ or single-gang electrical backbox for distortion-free, bi-directional projection. Weight is 1.5 lbs (.7 kg). Suffix model with color designation: Red (R) or Neutral Gray (N).

### BAFFLE COVER

**Model VTC.** Baffle cover converts Model TVTA (above) into a uni-directional unit for single loudspeaker installations. Die-cast zinc construction is finished in baked epoxy and is identical to the VT Series loudspeaker housing. Dimensions:  $4\frac{1}{4}$ " SQ x  $1\frac{1}{2}$ " D (108mm x 48mm). Weight is .5 lbs (.2 kg). Suffix model with color designation: Red (R) or Neutral Gray (N).

### ADAPTER PLATES

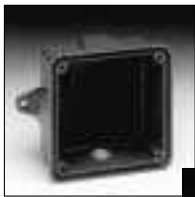
**Model SFP.** Semi-flush adapter plate mounts behind VT Series to cover any recessed 4" SQ x  $1\frac{1}{2}$ " D (102mm x 38mm) outlet box. CRS wall plate is stamped and painted. Dimensions: 6" SQ x  $\frac{7}{8}$ " D (152mm x 6mm). Weight is .5 lbs (.2 kg). Suffix model with color designation: Red (R) or Neutral Gray (N).

**Model FP.** Flush adapter plate for VTF Series loudspeakers allows recessed mounting to standard  $4\frac{1}{8}$ " (119mm) backboxes. Unit is also suited to mount solid exterior or hollow interior wall surfaces where a backbox is not required. Weight is .4 lbs (.18 kg). Unit is of CRS stamped construction; not painted.

### ADAPTER RINGS

**Model AR.** Adapter ring for recessed mounting of VTF Series units. Welded steel collar is 4" SQ x 2" D (103mm x 51mm) to provide necessary extension for any 4" SQ x  $2\frac{1}{2}$ " D (102mm x 54mm) E.O. box. Weight is .6 lbs (.27 kg). When assembled, the unit is  $3\frac{3}{8}$ " deep and will fit in a standard 4" stud wall. Assembly includes four "S" clips. Finished in neutral gray.

**Model MR.** Overlapping extension ring is equipped with clips for recessed mounting of VTF Series models. Welded steel collar is  $4\frac{1}{8}$ " SQ (I.D.) x 2" D (119mm x 51mm) to provide extension for any  $4\frac{1}{8}$ " SQ (O.D.) x  $2\frac{1}{2}$ " D (119mm x 54mm) backbox. When assembled, the unit is  $3\frac{3}{8}$ " deep and will fit in a standard 4" stud wall. Assembly includes four "S" clips. Weight is .7 lbs (.3 kg). Finished in neutral gray.



SE



SI



TVTA



VTC



SFP



FP



AR



MR

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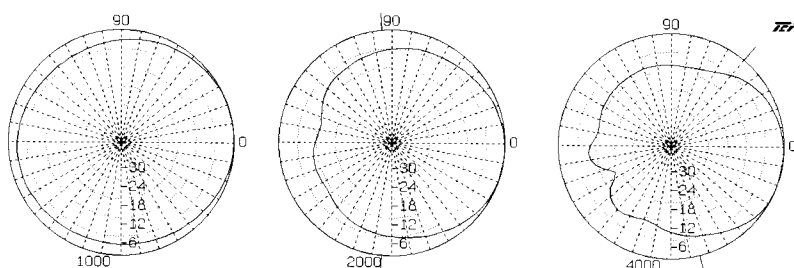
### VT/VTF LOUDSPEAKER SPECIFICATIONS

MODEL	TRANSFORMER	POWER TAPS (WATTS)	FREQ. RESP.	DISPERSION	SENSITIVITY	DIMENSIONS / WEIGHT	CAPACITOR (C)
VT(F)-158U	*	15 (8 Ohms)	600 Hz - 5500 Hz (± 5dB)	> 190° (- 6dB pt., 1 and 2 kHz octave bands)	96.9dB	<b>VT Series:</b> 4-1/4" SQ x 3-1/4" D (108 x 83mm) 3.2 Lbs. (1.5 kg)	N.A.
VT(F)-157UC	70.7 V	15, 8, 4, 2			(1 watt, 1 meter)		5 mfd.
VT(F)-152UC	25 V	15, 8, 4, 2			UL: 90dB **		1 mfd.
VT(F)-27UC	70.7 V	2, 1			(1 watt, 10 feet)		1 mfd.
VT(F)-22UC	25V	2, 1			6" SQ x 3-1/4" D (152 x 83mm)		1 mfd.
VT(F)-17UC	70.7	1, 1/2, 1/4	3.2 Lbs. (1.5 kg)	1 mfd.			

\* Without transformer, 8-ohm impedance. \*\* 3dB increment rating.

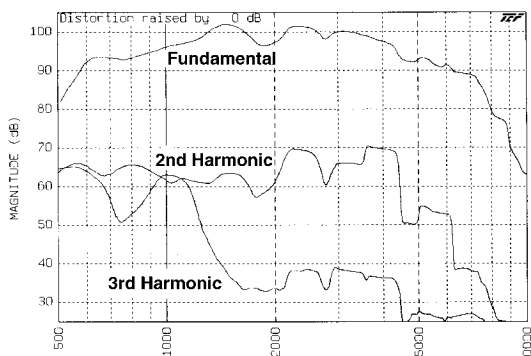
### SOUND LEVEL REFERENCE INDEX FOR VT AND VTF SERIES LOUDSPEAKERS (BASED ON UL RATING OF 90dB AT 1 WATT, 10 FEET)

DISTANCE	15-W INPUT	8-W INPUT	4-W INPUT	2-W INPUT	1-W INPUT	1/2-W INPUT	1/4-W INPUT
10' (3.0 m)	102.0dB	99.0dB	96.0dB	93.0dB	90.0dB	87.0dB	84.0dB
20' (6.1 m)	96.0dB	93.0dB	90.0dB	87.0dB	84.0dB	81.0dB	78.0dB
30' (9.1 m)	92.5dB	89.5dB	86.5dB	83.5dB	80.5dB	77.5dB	74.5dB
40' (12.2 m)	90.0dB	87.0dB	84.0dB	81.0dB	78.0dB	75.0dB	72.0dB
50' (15.2 m)	87.7dB	84.7dB	81.7dB	78.7dB	75.7dB	72.7dB	69.7dB

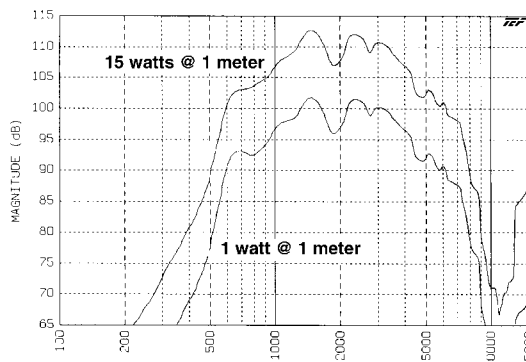


Freq. (Hz)	Q	Di	Dispersion Angle (Degrees)
1000	1.83	2.61	360
2000	3.09	4.91	190
4000	4.54	6.57	125

**VT / VTF SERIES**  
Polars Are Normalized to Zero on Axis



**VT / VTF SERIES Harmonic Distortion**  
(1 watt @ 1 meter)



**VT / VTF SERIES FREQUENCY RESPONSE**

### ARCHITECT AND ENGINEER SPECIFICATIONS

VT/VTF Series. Audible signalling device shall be Atlas Sound Model VT-\_\_\_\_ (surface mount) or VTF-\_\_\_\_ (flush-recessed mount). Continuous power rating shall be \_\_\_\_ (15, 8, 4, 2, 1, 1/2, 1/4 watts) at rated power. Frequency response shall be 600 to 5500 Hz (± 5dB). Sensitivity shall be 96.9dB (at 1 watt, 1 meter). Sound pressure level shall be \_\_\_\_ at a distance of \_\_\_\_ (see Sound Level Reference Index). Dispersion shall be greater than 190° (-6dB point, 1 and 2 kHz octave bands). Model shall be water/moisture sealed and constructed of die-cast zinc. Unit shall operate within the temperature

range of 150°F (66°C) to -30°F (-35°C). VT Series shall be installed in \_\_\_\_ (a standard 4" SQ E.O. Box, Atlas Sound Model SFP semi-flush plate, Model SE surface exterior backbox, or Models TVTA and VTC bi-directional housing and baffle cover). VTF Series shall be installed in a standard \_\_\_\_ (4" or 4-11/16" SQ) backbox using Atlas Sound Model \_\_\_\_ (AR, MR) overlapping extension ring. Dimensions shall be: VT Series, 4-1/4" SQ. x 3-1/4" D (108 x 83mm); VTF Series, 6" SQ. x 3-1/4" D (152 x 83mm). Finish shall be red or neutral gray.

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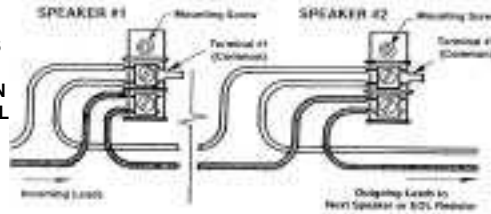


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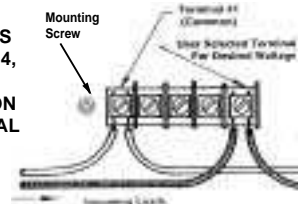
## VT/VTF SERIES UL WIRING REQUIREMENTS

**NOTE:** To conform with UL1480 requirements, wires must be connected to appropriate terminals as shown in the wiring diagram. **Do NOT** use looped wire under terminals. Break wire run to provide for supervision of connection.

VT/VTF MODELS WITH 2 POSITION TERMINAL STRIP



VT MODELS WITH 3, 4, OR 5 POSITION TERMINAL STRIP



VT/VTF-17U VT/VTF-17UC			VT/VTF-22U VT/VTF-22UC			VT/VTF-27U VT/VTF-27UC			VT/VTF-152U VT/VTF-152UC			VT/VTF-157U VT/VTF-157UC 70V			VT/VTF-158U				
70V Line Xfmr			25V Line Xfmr			70V Line Xfmr			25V Line Xfmr			70 V Line Xfmr			8 ohms				
Term	Color	Watt Rating*	dB	Term	Color	Watt Rating*	dB	Term	Color	Watt Rating*	dB	Term	Color	Watt Rating*	dB	Term	Color	Watt Rating*	dB
1	Red	Com	-	1	Red	Com	-	1	Wht	Com	-	1	Wht	Com	-	1	Blk	Com	-
2	Blu	1/4	84	2	Blu	1	87	2	Red	2	90	2	Red	2	90	2	Yel	15	96
3	Yel	1/2	87	3	Wht	2	90	3	Gry	4	93	3	Gry	4	93				
4	Wht	1	90					4	Brn	8	96	4	Brn	8	96				
								5	Gm	15	99	5	Gm	15	99				

\* UL 3dB Increment Rating

### VT SERIES UL LISTED VOICE/TONE™ EMERGENCY LOUDSPEAKER INSTALLATION

(\* Backboxes by others)

### SURFACE INTERIOR BACKBOX (SI)

SURFACE OR CONCEALED CONDUIT MOUNTING

VT Series with Model SI backbox.

### SURFACE EXTERIOR BACKBOX (SE)

WEATHERPROOF MOUNTING

VT Series with Model SE for weatherproof installations.

### SEMI-FLUSH PLATE (SFP)

Do not use these five knockouts for connecting conduit (will interfere with the loudspeaker).

SEMI-RECESSED MOUNTING

VT Series with Model SFP installed to any recessed 4" SQ x 2-1/8" D backbox\*.

### BI-DIRECTIONAL HOUSING (TVTA) / BAFFLE COVER (VTC)

BI-DIRECTIONAL MOUNTING

Two independently powered VT units installed into Model TVTA. Mounts to any 4" SQ or single gang E.O. Box\* for ceiling or wall installations. (To build a uni-directional unit for single loudspeaker installations, use a VT loudspeaker on one end and a VTC baffle cover on the other.)

### VTF SERIES UL LISTED VOICE/TONE™ EMERGENCY LOUDSPEAKER INSTALLATION

(\* Backboxes by others.)

### ADAPTER RING (AR)

Do not use these five knockouts for connecting conduit (will interfere with the loudspeaker)

RECESSED MOUNTING OPTION

VTF Series with standard 4" SQ x 2-1/8" D backbox\* & Model Adapter Ring (AR).

\* A Standard 2-1/8" D backbox assembled with overlapping extension ring (AR) is 3-11/16" Deep.

### FLUSH MOUNTING PLATE (FP) / ADAPTER RING (MR)

RECESSED MOUNTING OPTIONS

FP Mounting Plate Dimensions

VTF Series with Model FP mounted to solid exterior (or hollow interior) wall where backbox is not required.

MR Ext. Ring Dimensions

VTF Series with standard 4-11/16" SQ x 2-1/8" D backbox\* and overlapping extension ring (MR). Flush plate (FP) required for loudspeaker alignment.

\* A standard 2-1/8" D backbox assembled with overlapping extension ring (MR) is 3-11/16" D.

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