VIKING

TECHNICAL
Practice
TELECOM SOLUTIONS FOR THE 21ST CENTURY

Generate Multiple Tones for Any Paging System

MODEL: MTG-10
Multi-Tone Generator

OUTPUT - 10
OUTPUT + 9
INPUT - 8
INPUT + 7
SELECT COM 6
5
4
TONE 3
SELECTION 2
1

Viking Electronics, Inc.
Hudson, WI 54016

Viking's model **MTG-10** is a multi-tone generator designed to add multiple contact-controlled audio tones to paging systems or 600 ohm inputs.

The **MTG-10**'s audio input can be connected to any paging source, such as a phone system paging port or background music. When a contact closure is provided to one of the inputs, the paging or background music is faded out and the appropriate tone is generated over the paging system. The siren or the evacuation whoop always have priority and over-ride any other tone being generated.

The **MTG-10** can also be configured to provide a tone every 15 seconds to notify callers that their conversation is being recorded.

Phone…715.386.8861

Tone Descriptions

• Siren

• Interrupted 784Hz Tone

• Door Chime (Ding-Dong)

• Warble (Electronic Ring)

• Double Gong

• Evacuation Whoop (ANSI/NFPA compliant, temporal slow whoop)

• Telephone Recording Disclosure Tone (500ms beep, every 15 seconds)

• Double Chime

• Quadruple Chime

• Double Buzz

http://www.vikingelectronics.com

Made in the U.S.A.

Features

• Ten available tones, organized into two groups of five tones

• Contact initiated

• Built-in background audio source fade-in/out

• Priority ANSI compliant evacuation and siren tones

• Telephone recording disclosure tone repeats every 15 seconds

info@vikingelectronics.com

Specifications

Power: 120V AC/12V DC 500mA UL listed adapter provided
Dimensions: 74mm x 53mm x 25mm (2.9" x 2.1" x 1.0")
Shipping Weight: 0.4 kg (0.86 lbs)
Environmental: 0°C to 32°C (32°F to 90°F) with 5% to 95% non- condensing humidity
Input Impedance: 600 ohms
Output: Capable of driving 600 to 100K ohms impedance
Maximum Output Level: +5dbm into 600 ohms
Evacuation Tone: ANSI compliant
Connection: 10 position cage clamp terminal strip

Warranty

Installation

A. Mounting

The **MTG-10** is designed to be wall mounted using the included foam tape or with screws as follows:

Step 1.	Unsnap the plastic cover (see **Diagram A** below).
Step 2.	Loosen the screw and rotate the circuit board to the left, exposing the two mounting holes in the base (see **Diagram B** below).
Step 3.	Screw the base to the wall, etc. using (2) #6 flathead or sheetrock screws.

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Diagram A

(2) #6 Flathead Screws or Sheetrock Screws (not included)

Internal View of the MTG-10

Mounting Holes

Diagram B
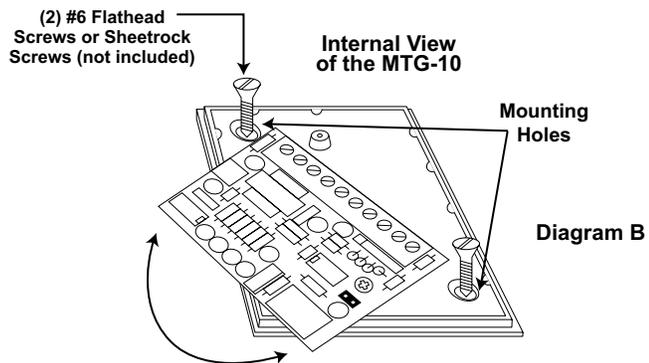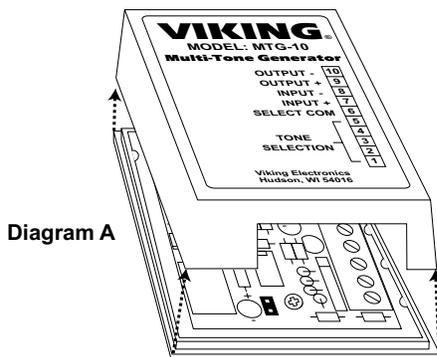
Note: Make sure the screw heads are fully driven into the base to avoid shorting the circuit board leads.

B. Wiring

120V AC

12V DC Adapter Included

Output Volume Control

Tone Selection (pins 1-5)

Common Ground (pin 6)

Audio Output (pins 9 & 10)

Audio Input (pins 7 & 8)
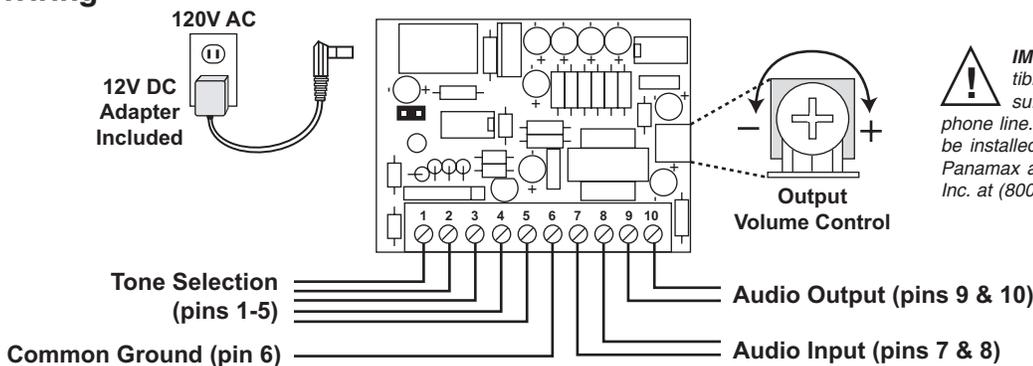
IMPORTANT: Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges. Contact Panamax at (800) 472-5555 or Electronic Specialists Inc. at (800) 225-4876.

Programming

A. Tone Generator Only

If the **MTG-10** is to be used strictly as a tone generator, connect pins **9** & **10** of the **MTG-10** to the audio input of a paging amplifier. In this mode, no input signal is required, only a contact closure for the desired tone.

B. Tone Generation and Background Music Control

If the application requires background music to be interrupted by the tone, connect the background music source to audio input pins **7** & **8**. The audio output pins **9** & **10** connect to the audio input of a paging amplifier.

C. Telephone Recording Disclosure Tone

In some states, to legally record a telephone conversation, both parties must be alerted to the fact that you are recording their conversation. One common method of reminding callers that they are being recorded is to provide a periodic alert tone during the call. To create a telephone recording disclosure tone at 15 second intervals, wire the **MTG-10** as shown below. Then jumper pins **1** and **5** with pin **6**. When the unit is powered up, it will go into alert tone mode. *Note:* The shunt *JP1* may be in or out.
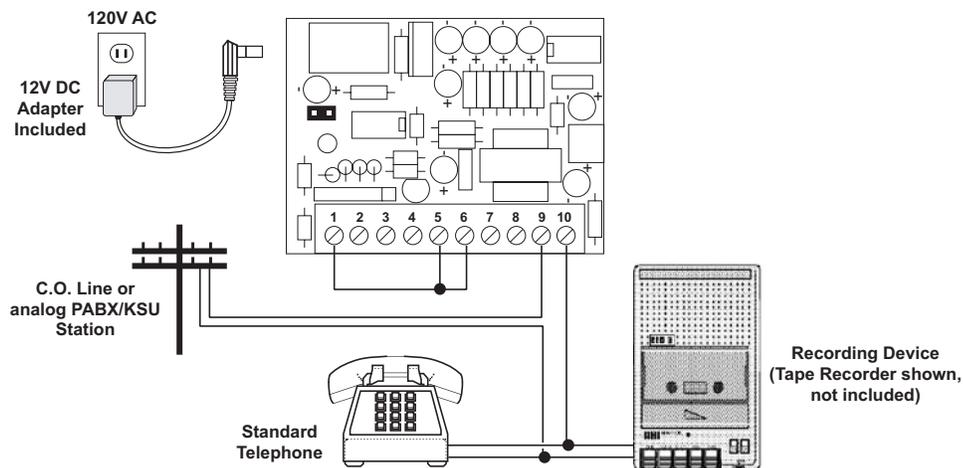

D. Output Volume Level

The output level of the tones can be adjusted by adjusting the **Output Level Control** as shown in **Installation** section **B**. This does not affect the level of the audio input.

Operation

A. Tone Group Selection

The **MTG-10** features two groups of user controllable tones selected by removing or inserting shunt **JP1** (see diagram below and chart to the right). *Note: A steady 784hz tone is available by using special software model* **M10-CT**.
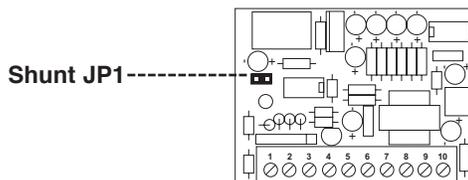
| Tone		Shunt	Pin Number
Group 1	Siren	In	1
	Interrupted 784hz Tone	In	2
	Door Chime (Ding Dong)	In	3
	Warble (Electronic Ring)	In	4
	Double Gong	In	5
Group 2	Evacuation Whoop	Out	1
	Interrupted 784hz Tone	Out	2
	Double Chime	Out	3
	Quadruple Chime	Out	4
	Double Buzz	Out	5

B. Individual Tone Selection

An individual tone may be energized by shorting pin 6 (common ground) to the corresponding pin of the desired tone. The tones will continue for as long as the closure is maintained. If background music is passed through the **MTG-10**, it will be faded out during the tone and then faded back in.

Applications

A. Amplifying MTG-10 Tones with a PA-2A

In this application, the tones from the **MTG-10** are amplified by a Viking **PA-2A** Paging/Loud Ringing Amplifier. Whenever the **MTG-10** receives a contact closure on one of its inputs, it generates the selected tone. Whether the paging amp amplifies the tone when other inputs are activated depends on the the priority the paging amp places on this particular input. If the **MTG-10** has been installed to generate emergency tones, its output should have top priority so that any emergency tone will be amplified and sent to the paging speakers.

MTG-10

Radio Source

PA-2A

25AE Paging Horn

Need More Information on the PA-2A?
Call (715) 386-4345 and select 485.
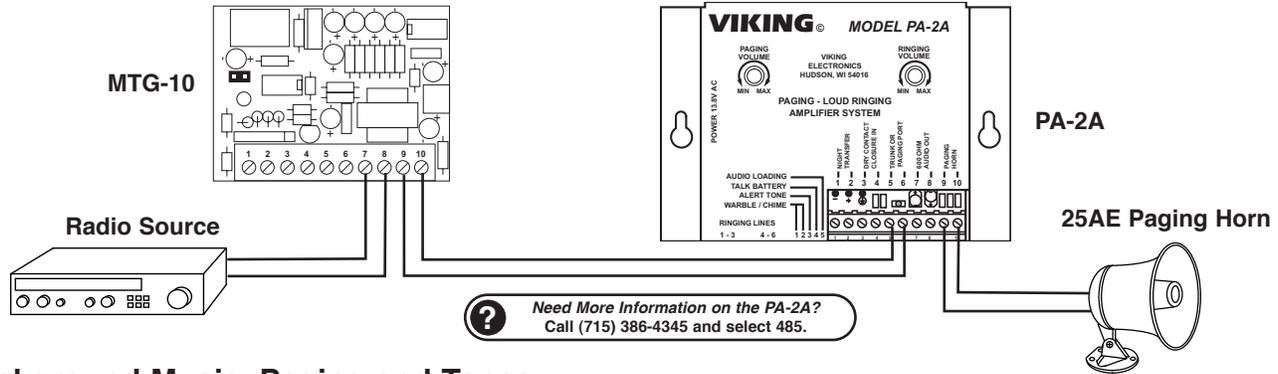
B. Background Music, Paging and Tones

In this application, the **MTG-10** is used with a Viking **PI-1** and a **CPA-7B** to provide paging with background music which can be interrupted by tones from the **MTG-10**. The **PI-1** provides switching between background music and paging, the **CPA-7B** provides the amplification, and the **MTG-10** is wired in such a way that its tones will always be given priority over music or paging.

MTG-10

PI-1

CPA-7B

Contact Closure

Phone

To Paging Port

PABX/KSU Station

Radio Source

To Music Input

25AE Paging Horn

Need More Information on the PI-1?
Call (715) 386-4345 and select 490.

Need More Information on the CPA-7B?
Call (715) 386-4345 and select 455.
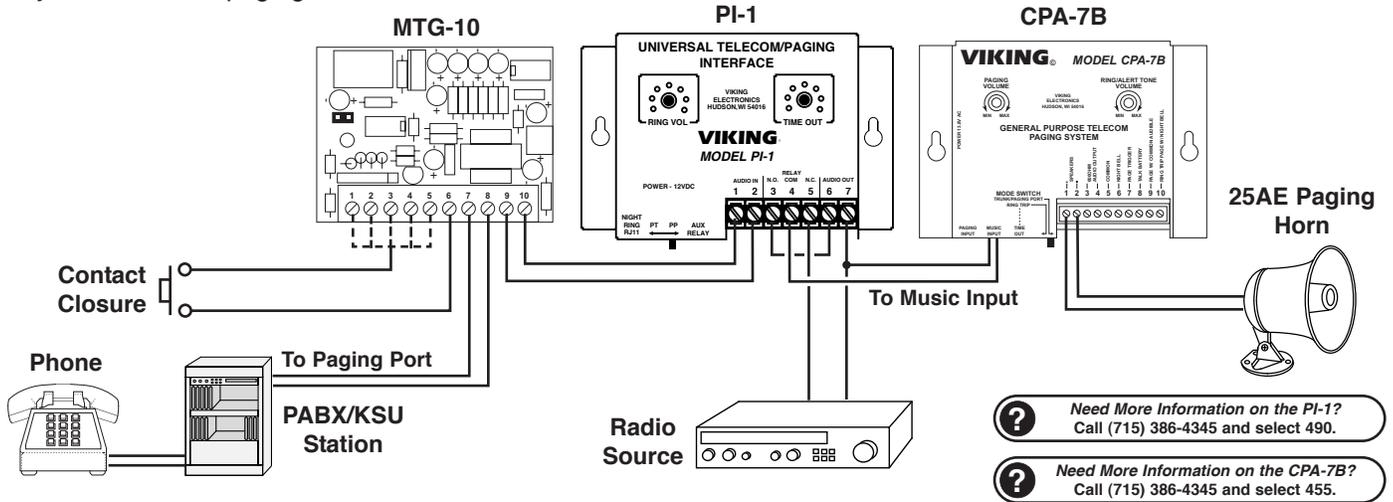
Related Product

Add Paging, Loud Ringing and Background Music to Centrex, PABX, and Key Systems

The **CPA-7B** is a cost effective, multi-purpose, telecom paging system. The **CPA-7B** provides 6 watts of low noise, high fidelity power for many telecom paging and night bell applications. Multiple units can be cascaded to power more speakers for larger paging applications.

The **CPA-7B** can be interfaced to ringing Centrex/C.O. lines, analog PABX/KSU stations, unused trunk inputs, as well as standard paging ports. For loud ringing, the **CPA-7B** generates an adjustable loud warble from a dry contact closure or a ringing Centrex/C.O. line or analog PABX/KSU station. The **CPA-7B** is easy to install and can eliminate the installation of multiple bells, relays and paging cards.

Need More Information on the CPA-7B?
Call (715) 386-4345 and select 455.

Product Support Line...715.386.8666   Fax Back Line...715.386.4345