TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

CPA-7B

General Purpose Telecom Paging System

September 23, 2009

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

The **CPA-7B** is a cost effective, multi-purpose, telecom paging system.

The **CPA-7B** features a low noise, high fidelity amplifier, providing 6 watts of power for a variety of telecom paging applications. It can also provide background music* and night bell/common audible. In addition, multiple units may be daisy-chained for larger paging applications.

Compatible with ringing C.O. lines, Centrex lines and adjustable analog PABX/KSU station ports as well as unused trunk inputs, the **CPA-7B** will also interface directly with standard paging ports. For loud ringing, the **CPA-7B** generates an adjustable loud warble from a dry contact closure, a ringing C.O. or a ringing analog PABX/KSU station.

The **CPA-7B** is easy to install and can eliminate the installation of multiple bells, relays and paging cards.

Features

- 6 watts of paging power (powers up to (8) 8 ohm horns/speakers)
- Increased audio fidelity with low noise amplifier
- Interfaces with ringing C.O. lines, Centrex lines, paging ports, unused phone system trunk inputs, or ringing analog station ports
- 600 ohm audio output to connect multiple CPA-7B's for larger paging applications
- (1) 8 ohm 25AE paging horn included
- Day/night switchable for paging/loud ring
- Ringing/alert tone volume adjustment
- Paging volume adjustment
- Selectable ring trip paging and night bell
- Background music is muted during page*
- 10 pin cage clamp terminal strip for easier wiring
- Provides "Night Bell" warble tone via contact closure or ringing analog circuit
- Provides page "Alert" tone before paging
- Adjustable ring trip paging time out for auto disconnect (disable timeout by removing JP1)
- Audio patch cord provided

** **Note:** A dry contact closure is required to mute background music when paging from a 600 ohm paging port (see **Installation** section **D**).*

Applications

- Paging and loud ringing for Centrex systems
- Paging and loud ringing for phone systems with paging ports, unused analog station ports or unused trunk inputs

Phone...715.386.8861

http://www.vikingelectronics.com

Specifications

Power: 120V AC/13.8V AC 1.25 A, UL listed adapter provided
Amplifier: 6 watts - to power up to (8) 8 ohm speakers (cascadable to drive additional speakers)
Dimensions: 133 mm x 89 mm x 44 mm (5.25" x 3.5" x 1.75")
Shipping Weight: 1.36 kg (3 lbs)
Environmental: 0°C to 32°C (32°F to 90°F) with 5% to 95% non-condensing humidity
Speakers: (1) 25AE paging horn provided
Sound Pressure Level: 110dB, 1KHz @ 1m with (1) 25AE Paging Horn (included), each additional horn will drop the output level of all horns by 1dB
Talk Battery Output: 19V DC (loop current 36mA nominal)
Maximum Speaker Cable Length: 91 m (300 ft) 18 AWG
Connections: (1) RJ11 jack, (1) 3.5mm (1/8") audio jack, (1) 2.1mm barrel jack

IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, PLEASE CONTACT: VIKING TECHNICAL SUPPORT AT (715) 386-8666

Our Technical Support Department is available for assistance Monday 8am - 4pm and Tuesday through Thursday 8am - 5pm central time. So that we can give you better service, before you call please:

1. Know the model number, the serial number and what software version you have (see serial label).
2. Have your Technical Practice in front of you.
3. It is best if you are on site.

RETURNING PRODUCT FOR REPAIR

The following procedure is for equipment that needs repair:

1. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number. The customer MUST have a complete description of the problem, with all pertinent information regarding the defect, such as options set, conditions, symptoms, methods to duplicate problem, frequency of failure, etc.
2. Packing: Return equipment in original box or in proper packing so that damage will not occur while in transit. Static sensitive equipment such as a circuit board should be in an anti-static bag, sandwiched between foam and individually boxed. All equipment should be wrapped to avoid packing material lodging in or sticking to the equipment. Include ALL parts of the equipment. C.O.D. or freight collect shipments cannot be accepted. Ship cartons prepaid to:
   Viking Electronics, 1531 Industrial Street, Hudson, WI 54016
3. Return shipping address: Be sure to include your return shipping address inside the box. We cannot ship to a PO Box.
4. RA number on carton: In large printing, write the R.A. number on the outside of each carton being returned.

RETURNING PRODUCT FOR EXCHANGE

The following procedure is for equipment that has failed out-of-box (within 10 days of purchase):

1. Customer must contact Viking's Technical Support at 715-386-8666 to determine possible causes for the problem. The customer MUST be able to step through recommended tests for diagnosis.
2. If the Technical Support Product Specialist determines that the equipment is defective based on the customer's input and troubleshooting, a Return Authorization (R.A.) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the R.A. number, return the approved equipment to your distributor, referencing the R.A. number. Your distributor will then replace the product over the counter at no charge. The distributor will then return the product to Viking using the same R.A. number.
4. **The distributor will NOT exchange this product without first obtaining the R.A. number from you. If you haven't followed the steps listed in 1, 2 and 3, be aware that you will have to pay a restocking charge.**

LIMITED WARRANTY

Viking warrants its products to be free from defects in the workmanship or materials, under normal use and service, for a period of one year from the date of purchase from any authorized Viking distributor or 18 months from the date manufactured, which ever is greater. If at any time during the warranty period, the product is deemed defective or malfunctions, return the product to Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI., 54016. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (R.A.) number.

This warranty does not cover any damage to the product due to lightning, over voltage, under voltage, accident, misuse, abuse, negligence or any damage caused by use of the product by the purchaser or others.

NO OTHER WARRANTIES. VIKING MAKES NO WARRANTIES RELATING TO ITS PRODUCTS OTHER THAN AS DESCRIBED ABOVE AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

EXCLUSION OF CONSEQUENTIAL DAMAGES. VIKING SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE TO PURCHASER, OR ANY OTHER PARTY, FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED TO THE SALE OR USE OF THE PRODUCT SOLD HEREUNDER.

EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY. WHETHER IN AN ACTION BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR ANY OTHER LEGAL THEORY, ANY LIABILITY OF VIKING SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, OR AT VIKING'S OPTION, REFUND OF THE PURCHASE PRICE AS THE EXCLUSIVE REMEDY AND ANY LIABILITY OF VIKING SHALL BE SO LIMITED.

IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT EACH AND EVERY PROVISION OF THIS AGREEMENT WHICH PROVIDES FOR DISCLAIMER OF WARRANTIES, EXCLUSION OF CONSEQUENTIAL DAMAGES, AND EXCLUSIVE REMEDY AND LIMITATION OF LIABILITY, ARE SEVERABLE FROM ANY OTHER PROVISION AND EACH PROVISION IS A SEPARABLE AND INDEPENDENT ELEMENT OF RISK ALLOCATION AND IS INTENDED TO BE ENFORCED AS SUCH.

FCC REQUIREMENTS

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the side of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive REN's on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of the REN's should not exceed five (5.0) To be certain of the number of devices that may be connected to a line, as determined by the total REN's, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (*e.g.*, 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

The plug used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this CPA-7B does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

If the CPA-7B causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications to maintain uninterrupted service.

If trouble is experienced with the CPA-7B, for repair or warranty information, please contact:

Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI 54016 (715) 386-8666

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Connection to Party Line Service is subject to State Tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

WHEN PROGRAMMING EMERGENCY NUMBERS AND (OR) MAKING TEST CALLS TO EMERGENCY NUMBERS:

Remain on the line and briefly explain to the dispatcher the reason for the call. Perform such activities in the off-peak hours, such as early morning or late evenings.

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightning strikes and other electrical surges.

PART 15 LIMITATIONS

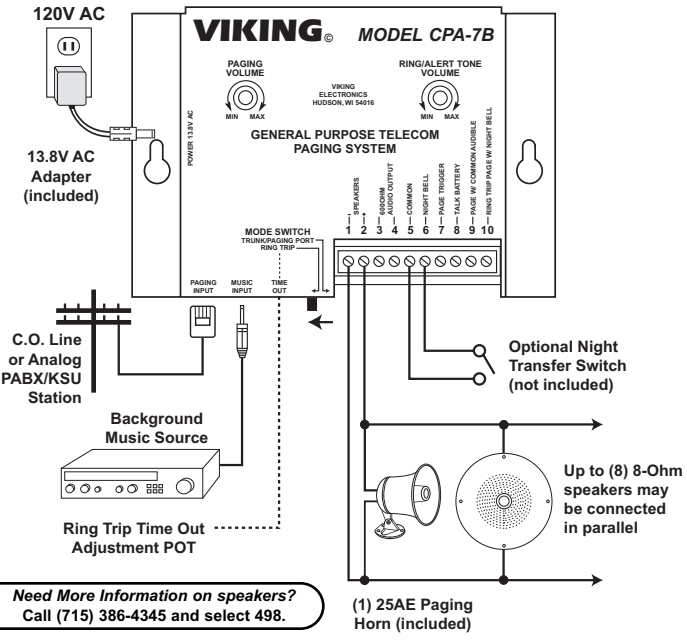
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Installation / Applications

A. Ring Trip Paging with or without Night Bell

Step 1.	Set the **MODE SWITCH** to the **RING TRIP** position.
Step 2.	Adjust the **RING TRIP TIME OUT POT** as required (adjustable from approximately 12 - 80 seconds).
Step 3.	Plug a C.O. line, Centrex line or analog PABX/KSU station into the **PAGING INPUT PORT**.
Step 4.	Make a sample page adjusting paging and alert tone volume.
Step 5.	With the night transfer switch off (open), the **CPA-7B** will answer and page, then disconnect on CPC or time out.
Step 6.	With the night transfer switch on (closed), the **CPA-7B** will broadcast a night bell ring (electronic warble tone) during each incoming ring.

Caution: *Do **NOT** connect speakers with a combined parallel impedance of less than 1 ohm. To power more speakers, see **Installation/Applications** section **F**.*



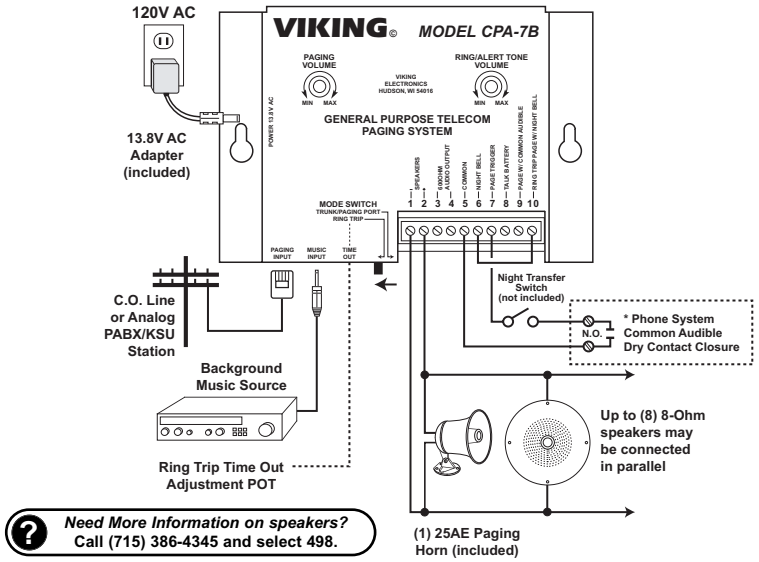
Need More Information on speakers? **Call (715) 386-4345 and select 498.**

B. Ring Trip Paging with Night Bell/Common Audible from Contact Closure

Step 1.	Set the **MODE SWITCH** to the **RING TRIP** position.
Step 2.	Adjust the **RING TRIP TIME OUT POT** as required (adjustable from approximately 12 - 80 seconds).
Step 3.	Connect the night transfer switch (optional), the phone system's common audible dry contacts to terminals **5** and **7** and jumper terminal **6** to **10** as shown in the diagram to the right.

Caution: *Do **NOT** connect speakers with a combined parallel impedance of less than 1 ohm. To power more speakers, see **Installation/Applications** section **F**.*

**** Note:*** *Some KSU/PABX's provide a "common audible" contact closure that activates during incoming ring on the phone system's line inputs. Night bell (electronic warble tone) will then be broadcast over the output. Night bell takes precedence over voice paging.*



Need More Information on speakers? **Call (715) 386-4345 and select 498.**

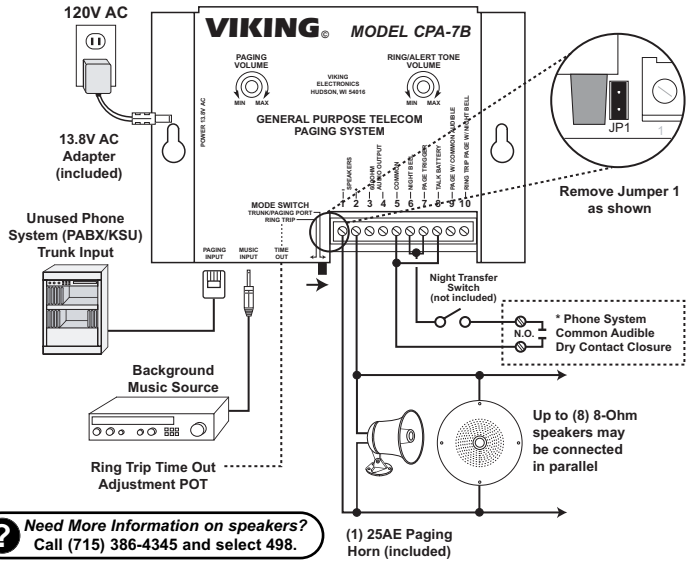
C. Paging from an Unused Phone System Trunk Input

Step 1.	Set the **MODE SWITCH** to the **TRUNK/ PAGING PORT** position.
Step 2.	Remove Jumper 1 (JP1).
Step 3.	Connect terminal 8 to 5 to provide talk battery on the **PAGING INPUT PORT**.
Step 4.	Connect the unused trunk port to the **PAGING INPUT PORT**.

Note: *If both paging and loud ringing audible are required, connect the night transfer switch (optional), the phone system common audible dry contacts to terminals 5 and 6 and jumper terminal **6** to **7** as shown.*

Caution: *Do **NOT** connect speakers with a combined parallel impedance of less than 1 ohm. To power more speakers, see **Installation/Applications** section **F**.*

**** Note:*** *Some KSU/PABX's provide a "common audible" contact closure that activates during incoming ring on the phone system's line inputs. Night bell (electronic warble tone) will then be broadcast over the output. Voice paging takes precedence over night bell.*



Need More Information on speakers? **Call (715) 386-4345 and select 498.**

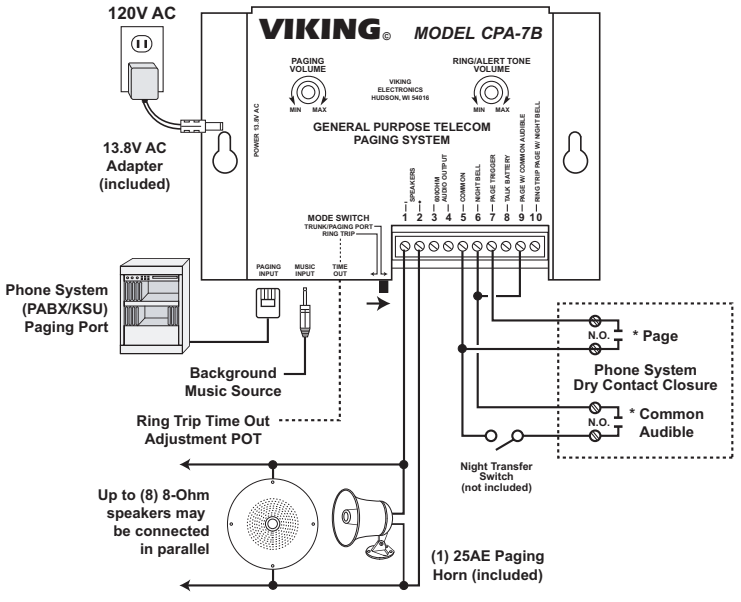
D. Paging from a Paging System's 600 Ohm Paging Port (with page dry contact closure provided)

Step 1.	Set the **MODE SWITCH** to the **TRUNK/ PAGING PORT** position.
Step 2.	Adjust the **RING TRIP TIME OUT POT** to the maximum (fully clockwise) position.
Step 3.	Connect the phone system's paging port to the **PAGING INPUT PORT**.
Step 4.	Connect the phone system's dry contacts to terminals **5** and **7**. The contact closure will activate the alert tone for paging and mute the background music.

Note: *If both paging and loud common audible are required, connect the night transfer switch (optional), the phone system's common audible dry contacts to terminals 5 and 6 and jumper terminal 6 to 9 as shown.*

Caution: *Do **NOT** connect speakers with a combined parallel impedance of less than 1 ohm. To power more speakers, see **Installation/Applications** section **F**.*

**** Note:*** *Some KSU/PABX's provide a separate "page" contact closure that activates when a page is in progress. Some KSU/PABX's provide a "common audible" contact closure that activates during incoming ring on the phone system's line inputs. Night bell (electronic warble tone) will then be broadcast over the output. Voice paging takes precedence over night bell.*



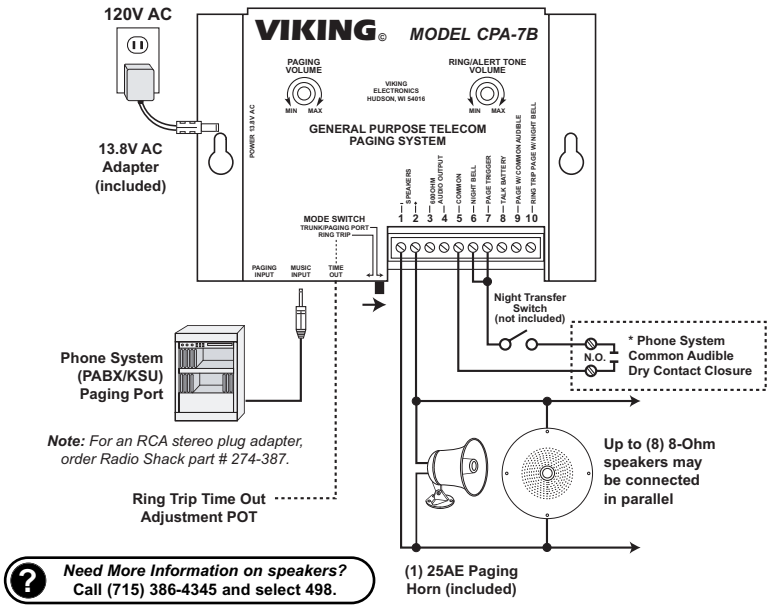
E. Paging from a Phone System's 600 Ohm Paging Port

Step 1.	If the phone system does NOT provide a dry contact closure on "page", connect the paging port to the 3.5mm (1/8") music input jack.
Step 2.	If loud common audible is required, connect the night transfer switch (optional), the phone system's common audible dry contacts to terminals **5** and **6** and jumper terminal **6** to **7** as shown.

Note: *The **CPA-7B** can **NOT** provide background music or alert tones in this application.*

Caution: *Do **NOT** connect speakers with a combined parallel impedance of less than 1 ohm. To power more speakers, see **Installation/Applications** section **F**.*

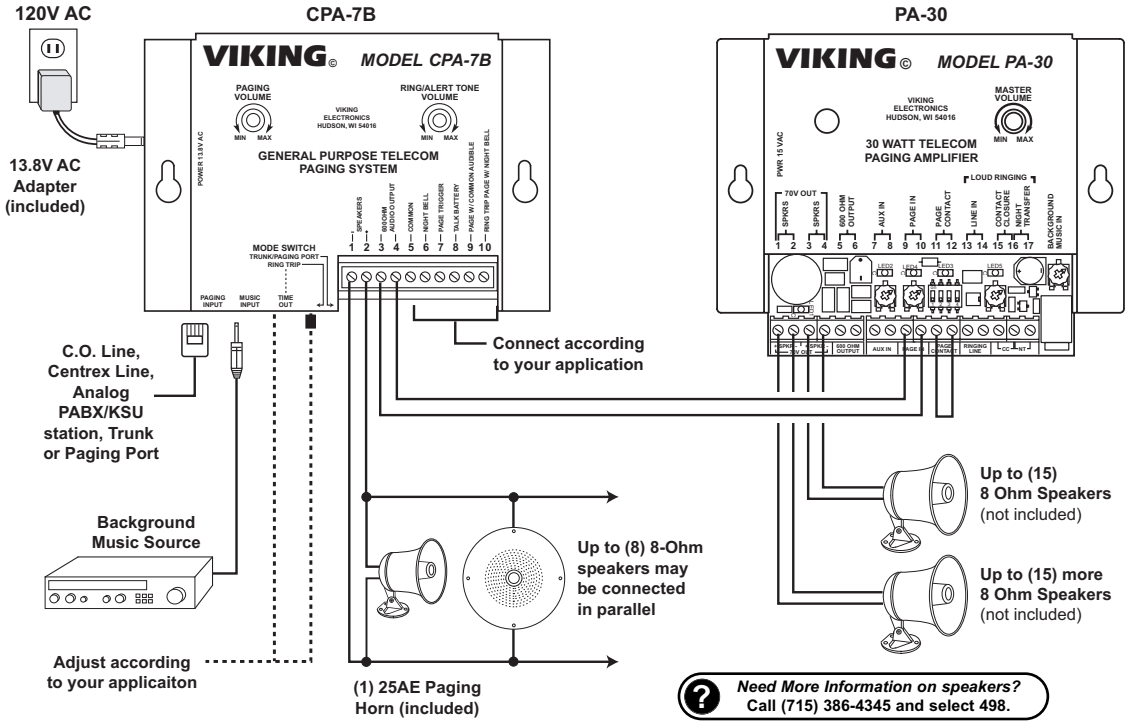
**** Note:*** *Some KSU/PABX's provide a "common audible" contact closure that activates during incoming ring on the phone system's line inputs. Night bell (electronic warble tone) will then be broadcast over the output. Night bell takes precedence over voice paging.*



F. Additional Paging Power

When more paging power and/or additional speakers are required, a **Viking** model **PA-30** can be used.

Step 1.	Connect the **CPA-7B** as described on previous pages.
Step 2.	Move the **PA-30**'s talk battery DIP switch to the **OFF** position (DIP switch **1**)
Step 3.	Connect the **CPA-7B**'s 600 Ohm Output (pins **3** and **4**) to a **PA-30** Page In (pins **9** and **10**).
Step 4.	Add a jumper wire across the Page Contact (pins **11** and **12**) of the **PA-30**.



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