Analog Solutions to VoIP Problems

Analog Telephone Adapter (ATA)

What is it? An ATA allows existing analog telephone equipment to connect to an IP network when upgrading to VoIP service. It should provide analog service that is nearly indistinguishable from public switched telephone network (PSTN) providers, unfortunately that is not always the case. Fortunately Viking offers several problem solving products that can help your ATA work with your existing installation!

Problem: Phones or overhead paging systems not ringing
Solution: Increase the ringing voltage of your ATA

Use a Ring Booster:

RG-4 for 1 lines
RG-204 for 4 lines
RG-212 for 12 lines
RG-224 for 24 lines

Problem: Paging system won't work after switching to IP phone service
Solution: Use a paging interface along with your ATA

Add an interface device:

FXI-1A Universal Paging Interface
RAD-1A Remote Access Device

Problem: Analog devices not functioning due to weak ATA power
Solution: Boost the talk battery and loop current of your ATA

Use a TBB-1B Talk Battery Booster

QUESTION: What's the main difference between analog phone service and voice over IP phone service?

ANSWER: It's the way the voice signals are delivered. The analog phone service carries signals over a dedicated pair of copper wires while the VoIP service delivers these signals over an IP data network. Learn more inside --->

Get to Know Us!

Name: Jessica Schmidt

Worked at Viking: 5 years

What are your responsibilities?
My responsibilities include setting up, running, and maintaining the SMT machines that place all of the surface mount parts on the PCBs. We also inspect and populate the boards.

Why do you like working at Viking?
From the moment I started here I admired the family-like atmosphere at Viking. We all work hard and play hard together. Everyone in the company values our customers, and will do what we can to satisfy their needs collectively.

Favorite treat to share at work:
My coworkers make great guinea pigs when trying out new recipes, but my favorite food to bring is spinach and artichoke dip.

What do you like to do outside work?
I spend lots of time with my family. My nieces and nephews are my world. I also enjoy playing Texas Holdem and being on the lake - fishing, swimming, and jet skiing.
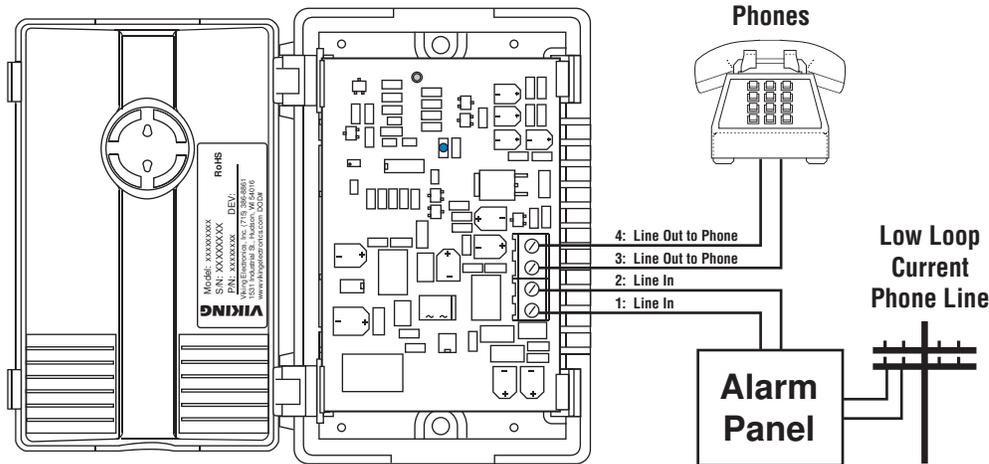
Favorite Movie: *"Magnolia"*

Favorite Quote: *"Schmidt happens!"*

TECH TIPS!

Low Loop Current Causes Alarm Panel Malfunction

Low loop current from a VoIP ATA, cable company, or telco provided phone lines can cause some alarm panels to go into an alarm state due to very low levels at the phone when in-use. Solve this problem by wiring a TBB-1B as shown below. The TBB-1B increases the in-use voltage.

Internal View of the TBB-1B

Phones

4: Line Out to Phone
3: Line Out to Phone
2: Line In
1: Line In

Low Loop Current Phone Line

Alarm Panel

For more information on installing the TBB-1B, go to:
www.VikingElectronics.com and search DOD 632

TRIVIA QUESTION

Which American football team won the first-ever AFL vs. NFL World Championship, which later became known as Super Bowl I?

Everyone who calls, emails, or faxes in the correct answer by **FEBRUARY 28, 2018** will be entered into a drawing for a delicious cheese assortment shipped from the Bass Lake Cheese Factory!

JANUARY'S TRIVIA QUESTION:
How many Waterford Crystal triangles cover the famous Times Square New Year's Eve Ball?

ANSWER: 2688

Congratulations to CATHY DANBRAUSKAS from Graybar, this month's WINNER!

Analog & VoIP

Here's a quick overview…

Analog Phone Service: An analog telephone is the traditional landline phone service that is still found in homes and businesses today. Also commonly known as Plain Old Telephone Service (POTS), analog phone service allows subscribers to communicate with one another.

How does it work? An analog telephone converts the voice signals into varying voltage levels. These levels travel as waves over the telephone line until they reach the end destination, where the speaker converts them back into sound. This means only one phone call can be on the pair of wires at one time, so a business usually installs several phone lines to handle multiple calls at once.

VoIP Phone Service: VoIP, which stands for Voice over Internet Protocol, offers phone service over an IP data network – typically the internet. While analog telephone subscribers receive a connection from their local phone company, VoIP allows for phone service via an internet connection and an account with a VoIP service provider that can be located anywhere.

How does it work?
A VoIP phone converts the voice signals into digital signals. These can then be delivered over the internet. The receiving VoIP phone converts these digital signals back into varying voltage levels for the speaker. Multiple VoIP phone calls can use a single internet connection, saving installation costs and monthly service fees.

This is the where it gets tricky…

Do they work together? The short answer is no, at least not without help.

When switching to IP phone service, analog devices (such as paging systems, door entry systems, etc.) will not operate the same - or they might not work at all. The most common way to fix this issue is to install an Analog Telephone Adapter (ATA). An ATA is designed to "mimic" analog service on an IP system, which allows already installed analog devices to continue operating.

Unfortunately, a typical ATA is only capable of providing the most basic version of a phone line, and many analog devices require more power to function correctly.

How can Viking help? Viking offers a selection of products that will increase ATA power and save the cost of replacing every analog device that has already been installed.

Increase the Ringing Voltage of Your ATA with a Ring Booster

Viking's Ring Boosters are designed to reshape and increase the ringing power of an existing analog line, PABX extension, FXS port, IP phone system analog port or any other telecom device which provides ringing. The units duplicate the incoming ring cadence, allowing compatibility with custom ringing features.

Each line is capable of ringing four 1 REN or eight 0.5 REN telephones and does not affect normal operation of the telephone line or features, such as distinctive ring, caller ID, call waiting, hookswitch flash features, CPC signaling, etc. Viking offers four sizes to fit many different applications.

- True Sine wave ring signal output
- Boosts ring to 4 REN per line
- Caller ID compatible
- Will not affect normal line operation
- Reshapes troublesome square wave ringing
- Model RG-224 connects directly to CISCO® VG224

RG-4 (DOD 416)

RG-204 (DOD 417)

RG-212 (DOD 419)

RG-224 (DOD 418)

Use a Paging Interface with Your ATA and Paging System

The FXI-1A provides normally open or normally closed relay contacts to activate the paging amplifier or connect to an external background music source. After paging, the FXI-1A automatically disconnects on CPC, busy signal, silence or adjustable timer. An electronic night bell over paging feature can be activated from a momentary contact closure. Power supply included.

- Select: FXO (loop start), FXS (ring trip) or paging port (VOX relay) interface mode
- 30V talk battery for use with an FXO port or unused trunk input
- 600 Ohm floating output - mutes music during page

For more info on the FXI-1A, search DOD 483 or call: 715-386-8861

The RAD-1A remote access device gives authorized users remote access to one way paging amplifiers, digital announcers, and other audio programs. A programmable access code prohibits access by unauthorized users.

The RAD-1A answers on the first ring and disconnects on CPC, call time out, silence time out, busy, or by dialing #7. Separate 600 Ohm audio and telephone line outputs are provided, allowing connection to audio amplifiers, digital announcers, or phone systems.

For more information on the RAD-1A, search DOD 410 or call: 715-386-8861

Boost the Talk Battery / Loop Current of Your ATA

The TBB-1B will boost talk battery and loop current on a single analog PABX station, CO line or VoIP ATA FXS port.

This is helpful for powering line powered devices, such as dialers and emergency phones on low voltage and/or loop current extensions and X-10 wireless phone jacks.

- Screw terminal connections for easy installation
- Boost talk battery to 48V
- Boost loop current to 26mA
- Power supply included

For more information on the TBB-1B, search DOD 632 or call: 715-386-8861

Contact Viking

Sign up for our email newsletter
SCAN HERE

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Viking products are **MADE IN THE USA** just as they have been for over 49 years!

In fact, Viking products are **DESIGNED**, **MANUFACTURED**, and **SUPPORTED** right here in Hudson, Wisconsin!

Utilizing **CURRENT TECHNOLOGY**, we design products that give our customers **RELIABLE QUALITY** at an **AFFORDABLE PRICE**.

WHAT'S INSIDE?

- Discover simple solutions to IP problems

- Find out who says their coworkers make good "guinea pigs"

- Learn more about analog vs VoIP