

PART...C'EST PARTI!!!”

“es el día 43 de...”

the courthouse, this is...”

sulla tre...”

d’être présentés. Soyez les bienvenus”

the grand opening of...”

“gira a la izquierda hasta...”

de 99 yardas!!”

Quality Products for the Professional Broadcast Industry

**JK Audio**



## New Home

Whenever I read of a manufacturer moving to a new location, I think "oh, that's nice". I'm happy for them, but not really conscious of what they went through since it really didn't affect us. Well, we just spent the last 18 months planning, building and finally moving into a new facility, and it definitely has affected our lives. While it was a tough process, we are now much more productive and responsive in all areas of the company. From now on, I'll have a better appreciation for anyone going through this process. That said, it really does feel great to drive into the new lot!

## New Gear

Amidst the pending move, we managed to complete the design of our new Four IFB Phone Bridge (page 4). We finished just in time to send a dozen units to Torino, Italy for winter sports coverage. We are also introducing RIU-IP (page 9), our new web interface for our innkeeper digital hybrids.

## Change UP

We've just completed redesign of our innkeeper 1x/1rx digital hybrids (page 10-11). This redesign allowed us to reduce the price of our higher end "x" series units as long as we retired the original innkeeper 1/1r models. The new innkeeper 1x (desktop) and innkeeper 1rx (rackmount) digital hybrids truly represent a new world standard in quality and value.

## Wireless Phone Compatibility...

Many JK Audio products provide connection to wireless (cell) phones. While our interface cable plugs directly into the 2.5 mm headset/earpiece jack on many telephone models, there are some telephones that are wired to prevent operation with third party equipment. In most cases, if you can use a generic, third party headset with your cell phone, you can use your JK Audio product as well. Also, while some wireless phones have an acceptable 2.5 mm jack, others require a headset adapter to convert their proprietary connector to an acceptable 2.5 mm jack. JK Audio does not offer these adapters.

## Warranty

JK Audio products are covered by a two year warranty to be free from defective workmanship and materials. In the event that your JK Audio product needs repair, you must call us to get an authorization, and then carefully pack and ship it to us or the nearest authorized repair center. You will pay for shipping to us and we will pay for return back to you. No free repairs will be made if the defect was caused by misuse, weather conditions, or other causes, except for defective workmanship or materials. There are no expressed or implied warranties which extend beyond the warranty here made. Prices, features, and specifications subject to change without notice.

All JK Audio products are made in the USA and carry a two year warranty.



Thanks for your continued support!

Sincerely,  
Joe Klinger  
President  
joeklinger@jkaudio.com



**On The Web**

Be sure to check out our web site. We keep it up to date with:

- New product information
- FAQ (Frequently Asked Questions)
- Products categorized by application
- Article reprints
- Trade show information



**Radio**

AutoHybrid .....5  
 RA4 .....5  
 Broadcast Host .....6  
 innkeeper PBX .....7  
 PBXport .....8  
 RIU/IP .....9  
 innkeeper 1x/1rx/Guest Module .....10-11  
 innkeeper 2 and 4 .....12-13  
 ComPack .....14  
 Daptor Two .....15  
 CellTap .....15  
 QuickTap .....16  
 THAT-2 .....17



**Television & Location Sound**

Four IFB .....4  
 AutoHybrid .....5  
 Broadcast Host .....6  
 innkeeper PBX .....7  
 RIU/IP .....9  
 innkeeper 1x/1rx/Guest Module .....10-11  
 innkeeper 2 and 4 .....12-13  
 ComPack .....14  
 CellTap .....15  
 Daptor Two .....15  
 THAT-2 .....17  
 RemoteAmp .....18



**AV/Telecom**

Four IFB .....4  
 AutoHybrid .....5  
 Broadcast Host .....6  
 innkeeper PBX .....7  
 PBXport .....8  
 RIU/IP .....9  
 innkeeper 1x/1rx/Guest Module .....10-11  
 innkeeper 2 and 4 .....12-13  
 CellTap .....15  
 QuickTap .....16  
 THAT-2 .....17



**Computer/Web**

Broadcast Host ..... 6  
 innkeeper PBX ..... 7  
 ComPack ..... 14  
 Daptor 2 ..... 15  
 QuickTap ..... 16  
 Performer ..... 16  
 THAT-2 ..... 17

**Product/Feature Comparison Chart .....19**



**NEW**

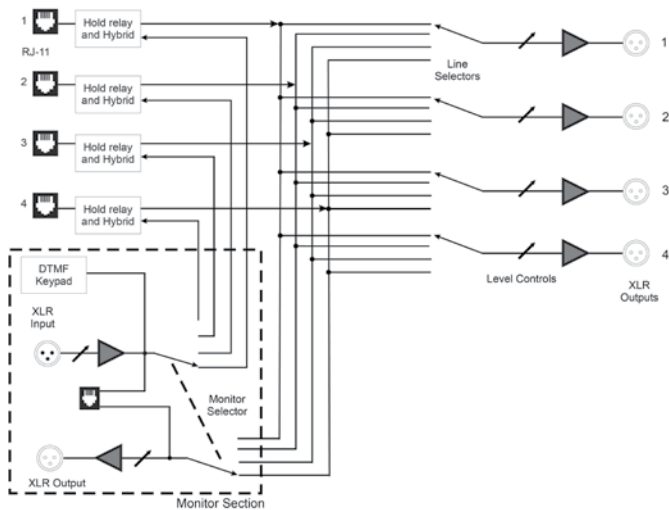
# Four IFB Multi-Line Phone Bridge

Four IFB is a four position analog telephone line interface designed specifically to provide flexible listen only IFB\* for television field production use. Each IFB output, and the monitor input / output jacks, may be separately connected to one of the four analog phone lines through the use of rotary line selector switches. A telephone handset may also be connected for communication with the Monitor phone line. Four IFB is designed to be used in a variety of environments and weather conditions. All controls and components are dust and moisture resistant. A non-removable hinged cover protects the unit's selector switches, add/drop buttons and keypad while the enclosure design protects the volume controls from physical damage.



\*IFB is a broadcast industry acronym which stands for Interruptible Fold Back. The IFB signal is typically a Program Line (PL) signal from the studio console.

## Simplified Block Diagram



## Specifications

- Input:**  
Line: Balanced Female XLR Line level, 20k ohms, +4dBu max
- Outputs:**  
Line: 5 - Balanced Male XLR Line level, 600 ohms, +4 dBu max
- Handset: RJ-22 handset jack biased for electret handset (not included)
- Phone Line: 4 - RJ11C
- Isolation: 1500 VAC
- Ringer: 0.5B REN
- Frequency Response: Telephone Side 200 Hz - 3600 Hz
- Power: 120-240 VAC, 50-60 Hz internal power supply
- Auxiliary Power: Single 9VDC battery
- Size: 10" x 9.75" x 2"
- Weight: 3.5 lbs



# AutoHybrid



AutoHybrid allows simultaneous send and receive audio through analog telephone lines. This is a simple, passive, auto-answer/disconnect telephone line hybrid. Not just another half duplex auto-coupler, this is a full duplex AutoHybrid. Perfect for monitoring remote locations, IFB feeds, and many simple studio, conferencing, and PA telephone interface applications.

Yes, you can send and receive audio at the same time. The dual transformer hybrid is capable of 20 dB nominal trans-hybrid loss. In other words, your transmit signal will appear mixed with the receive signal, but at a level 20 dB lower than it was sent into the phone line.

The "Auto" feature is very simple. When the "Auto" switch is selected, AutoHybrid will answer on the first ring. The phone line will remain off-hook, or seized, until either the Drop button is depressed, or until the phone company releases the line. AutoHybrid will drop the line with either a momentary loss

of line current or a polarity reversal. Keep in mind that it may take several seconds before the phone company provides this release signal. Also keep in mind that some business PBX telephone systems do not provide this release signal.

This small desktop unit easily converts to a rack-mount unit using the optional RA4 Rack Panel. The RA4 holds four AutoHybrids in a 1U rack space.

## Specifications

### Input

Balanced female XLR, 1k ohms, 500 mV RMS (-4dBu) nom. +6 dBu max

### Output

Balanced male XLR, 600 ohms, 200 mV RMS (-12 dBu) nom

Off-Hook LED

Auto-Answer switch

Screw terminals for:

Off-hook control (+5 VDC momentary)

Release control (+5 VDC momentary)

OH LED signal (pulled to ground on OH)

Phone Line: RJ11C

Aux Phone: RJ11C

Isolation: 1500 VAC

Ringer: 0.8B REN

Frequency Response:

Telephone Side 200 Hz-3600 Hz

Size: 4" x 5" x 1.5" (10.5 x 13 x 4 cm)

Weight: 1 pound

## Features

- Full Duplex Hybrid
- Auto-Answer/Disconnect
- Passive design – No power required!
- XLR send jack
- XLR receive jack
- Remote control terminals
- Tough aluminum design

# RA4

The RA4 holds four AutoHybrids in a 1U rack space. That's four hybrids in a 1U space, or stack two RA4s to get 8 hybrids in a 2U rack space....we're talking dense! What will you do with your extra rack space?

RA4 includes three removable blank covers.

Size: 19" x 1.75" (48.3 x 4.5 cm)





# Broadcast Host

Broadcast Host turns your desktop into a professional broadcast center. Contains everything you need to get talk show quality phone recordings into your mixer or sound card.

Connect a mic and headphones for a simple broadcast back to the station. Already at the station? Use Broadcast Host in your newsroom to record high quality interviews. Broadcast Host allows you to send mic and line level signals into the phone line while maintaining excellent separation between your voice and the caller. The stereo output jack on the back of the unit provides your voice on one channel and only the caller's voice on the other channel. The balanced XLR output jack contains only the caller's voice.

The digital hybrid connects audio signals to a standard analog telephone line without the transmit / receive crosstalk common to analog hybrids. The Digital Signal Processor (DSP) continuously monitors both the phone line and audio signals to deliver excellent separation. This proprietary, dual-convergence echo canceller algorithm can achieve excellent separation, typically exceeding 50 dB, without any setup and without sending a noise burst down the line.

Broadcast Host provides connections for a microphone, headphones, mixer, sound card, telephone and your analog telephone line. An auxiliary telephone is only required to place outgoing calls. The auxiliary telephone is disconnected when you press the "Call" button, and reconnected when you press the "Drop" button.

Broadcast Host features Auto-Answer/Auto Disconnect for use in IFB and monitoring applications. Other applications include: Podcasting/telephone interviews, talk shows, church PA interface, and conference room full duplex applications.

## Specifications

### Input

Mic/Line: Balanced Female XLR, 1kohm, 15 mV RMS (-34dBu) nom.

Mic/Line pad switch: Line = +6 dBu max  
Line: 250 mV RMS (-10 dBu) nom

### Output

Balanced: Male XLR, 200 ohms 500 mV RMS (-4dBu) nom. +14 dBu max

Unbalanced: 250 mV RMS (-10dBu) nom. +6 dBu max (+4 dBv max)  
Left = send, Right = caller.

Headphone: 3.5 mm stereo, 8 ohms, 250 mW, mixed send and receive.

Phone Line: RJ11C

Aux Phone: RJ11C

Isolation: 1500 VAC

Ringer: 0.5B REN

Frequency Response:

Telephone Side 200 Hz-3600 Hz

Power: 120-240 VAC power supply (included)

Size: 7" x 6" x 1.6" (18 x 15 x 4.2 cm)

Weight: 2.2 pounds (1 kg)

## Features

- Excellent separation of caller and talent voice
- 16 bit DSP technology
- Proprietary auto null algorithm, 50 dB null
- XLR input (mic/line switch)
- 3.5 mm line input
- XLR caller output
- 3.5 mm line output
- 3.5 mm headphone jack
- Send & Receive LEDs
- Guest Module remote control jack
- Auto answer/disconnect



# innkeeper PBX

Innkeeper PBX easily converts your multi-line PBX type telephone system into a professional, affordable talk show console. Simply connect between your telephone handset and the phone base. So simple, anyone can do it.

**Talk Show:** Connect innkeeper PBX between your console and your existing multi-line telephone. Your producer can screen callers from another phone while you take callers on the air by simply selecting available lines on your phone.

**Interviews:** Use innkeeper PBX in your newsroom to record high quality interviews. Connect a mic and headphones to your PBX telephone while maintaining excellent separation between your voice and the caller.

**Conference Room:** Easily connect your PA system to the existing PBX telephone system. The echo canceller algorithm can prevent feedback and allow full duplex conversations.

The digital hybrid connects audio signals to your PBX type telephone system through the telephone handset cord. The Digital Signal Processor (DSP) continuously monitors both transmit and receive audio signals to deliver

excellent separation. This proprietary, dual-convergence echo canceller algorithm can achieve excellent separation without any setup, and without sending a noise burst down the line.

Innkeeper PBX provides connections for a microphone, headphones, mixer, sound card, and telephone handset. The stereo output

jack on the back of the unit provides your voice on one channel and only the caller's voice on the other channel. The balanced XLR output jack contains only the caller's voice. The Handset and Broadcast buttons select between talking on the handset, or sending and receiving through the audio connections.

## Specifications

### Input

Mic/Line: Balanced Female XLR, 1kohm, 15 mV RMS (-34dBu) nom

Mic/Line pad switch: Line = +6 dBu max

Line: 250 mV RMS (-10 dBu) nom

### Output

Balanced: Male XLR, 200ohm, 500 mV RMS (-4dBu) nom. +14 dBu max

Unbalanced: 3.5 mm stereo, 50 ohms, 250 mV RMS (-10dBu) nom. +6 dBu max  
Left = send, Right = caller.

Headphone: 3.5 mm stereo, 8 ohms, 250 mW, mixed send and receive.

Handset: RJ22

Phone Base: RJ22

Handset Type: Switch selects electret, dynamic, or carbon handset microphone types.

Isolation: 1500 VAC

Frequency Response:

Telephone Side 200 Hz-3600 Hz

Power: 120-240 VAC power supply (included).

Size: 7" x 6" x 1.6" (18 x 15 x 4.2 cm)

Weight: 2.2 pounds (1 kg)

## Features

- Excellent separation of caller and talent voice
- 16 bit DSP technology
- Proprietary auto null algorithm
- XLR input (mic/line switch)
- 3.5 mm line input
- XLR caller output
- 3.5 mm line output
- 3.5 mm headphone jack
- Send & Receive LEDs
- Switch selects between electret, dynamic, and carbon handset types





# PBXport

PBXport is a professional digital hybrid capable of providing talk show quality caller audio from your PBX phone system. PBXport allows you to send mic or line level signals into your PBX telephone system while maintaining excellent separation between your voice and the caller. The balanced XLR output jack contains only the caller's voice allowing full duplex voice conferencing through the existing PBX phone system without fear of echo and feedback.

**Conference Room:** Easily connect your PA system to the existing PBX telephone system. The echo canceller algorithm can prevent feedback and allow full duplex conversations.

**Talk Show:** Connect PBXport between your console and your existing multi-line telephone. Your producer can screen callers from another phone while you take callers on the air by simply selecting available lines on your phone.

The digital hybrid connects audio signals to your PBX type telephone system through the telephone handset cord. The Digital Signal Processor (DSP) continuously monitors both transmit and receive audio signals to deliver excellent separation. This proprietary, dual-convergence echo canceller algorithm can achieve excellent separation without any setup, and without sending a noise burst down the line.

PBXport provides connections for a microphone, headphones, mixer, telephone handset and your telephone set. Simply disconnect the handset coily cord from the base of your telephone, and connect this handset cord to the front or rear panel jacks on PBXport. Now connect the supplied cord from PBXport to your telephone base. The handset is disconnected when you press the "Online" button, and reconnected when you press the "Handset" button.

The Handset Type switch allows PBXport to emulate the type of microphone found in any PBX phone system; electret, dynamic, or carbon handset microphones.

The Handset Type switch allows PBXport to emulate the type of microphone found in any PBX phone system; electret, dynamic, or carbon handset microphones.

## Specifications

### Input

Mic/Line: Balanced Female XLR, 1kohm, 15 mV RMS nom. (-34 dBu nom.)  
Mic/Line pad switch: Line = +6dBu nom.

### Output

Caller, Mix: XLR, 200ohms balanced, 500 mV RMS nom. (-4 dBu nom.) +12 dBu max  
Headphone: 1/4" stereo, 8 ohms, 250 mW  
Speaker: Screw terminal, 8 ohm, 1W max.

Handset: RJ22

Phone Base: RJ22

Handset Type: Switch selects electret, dynamic, or carbon handset microphone types.

Isolation: 1500 VAC

Frequency Response:  
Telephone Side 200 Hz - 3600 Hz

Screw Terminals:

- Speaker +
- Speaker -
- Ground
- Online LED
- Disconnect (N.O. remote control input)
- Connect (N.O. remote control input)

Power: 100-240 VAC 50-60 HZ

Size: 1.75" x 7.3" x 19" (4.5 x 18.6 x 48.3 cm)

Weight: 5.4 pounds (2.4 kg)

## Features

- 16 bit DSP Echo Canceller
- Proprietary auto null algorithm, 50 dB null
- Transmit female XLR with mic/line switch
- Caller output male XLR
- Mix output male XLR (adjustable mix of send & receive)
- Front panel 1/4" headphone jack
- Speaker output terminals
- Transmit and Receive LEDs
- Switch selects between electret, dynamic, and carbon handset types
- Front and Rear panel Handset and Phone Base RJ22 jacks
- Remote control screw terminal block



**NEW**



# RIU-IP Remote IP Interface

The RIU-IP is a remote control interface designed for innkeeper 1x, 1rx, 2 and 4 digital hybrids. This unit contains a web server which allows the user to send and receive control data through their web browser. RIU-IP can be connected to the user's computer NIC card for direct control, to a switch or hub for network control, or to an ethernet port with internet access for control from anywhere in the world.

## Remote Control Capabilities

- Indication of incoming ring per line.
- On-Hook and Off-Hook
- Confirmation of Off-Hook on On-Hook transition per line.
- Place call on hold or release hold.
- Dial (number) (line).
- Start and stop Conference (innkeeper 2).
- Adjust transmit and receive level per line (innkeeper 2 and 4).
- Auto-Answer on/off
- Auto-Answer ring count (innkeeper 2 and 4)
- Test tone start / stop per line.
- Address book upload / download (innkeeper 2 and 4).
- Master Send configuration (innkeeper 2 and 4).
- Presence on/off (innkeeper 1x)
- Caller Ducking on/off (innkeeper 1x)
- Automatic Gain Control on/off (innkeeper 1x)

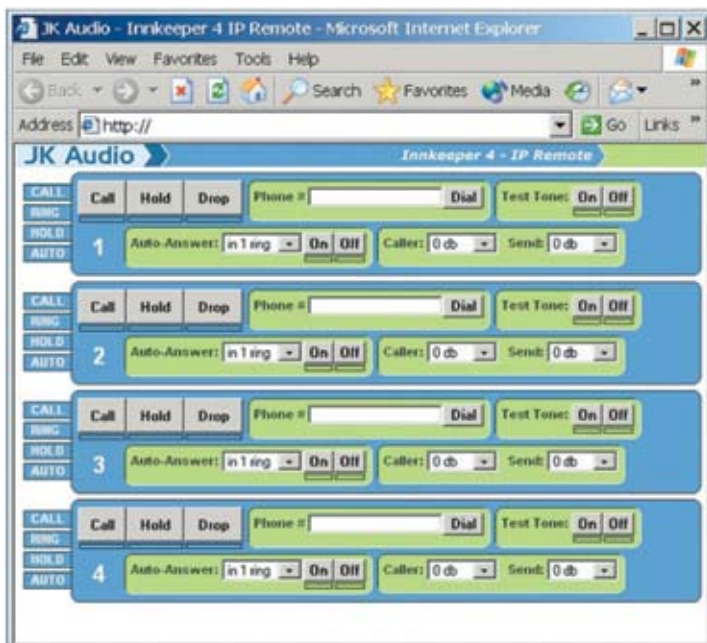
## Features

- Connects to innkeeper 1x and 1rx, innkeeper 2 or innkeeper 4 Digital Hybrids
- RJ45 Ethernet port
- RS-232 remote control port with simple ASCII protocol
- No external power required

## Specifications

Control connection:	RJ-45 Ethernet port
Digital Hybrid connection:	RJ-50
RS-232 Serial connection:	DB9 (9600,8,N,1)
Size:	5" x 3.25" x 1.125"
Weight:	1 lb

4-line screen version shown



Designed for use with innkeeper 1x and 1rx and innkeeper 2 and 4



innkeeper 1x



# innkeeper 1x and 1rx



The innkeeper 1x gets audio in and out of analog telephone lines. Its excellent caller audio output does not exhibit the transmit/receive crosstalk common to analog hybrids. This makes innkeeper 1x perfect for radio or television talk shows, teleconferencing, or auto-answer IFB feeds.

Innkeeper 1x connects audio signals to a standard analog telephone line without the variations in quality found with analog hybrids. The main function of a hybrid is to bring in the caller's voice from the phone line, as clear and clean as possible. In the real world, when you send your voice down the telephone line it has a tendency to bleed over into the caller's audio. The hybrid must adapt to the phone line in order to properly separate transmit and receive audio. We use a 16-bit DSP to monitor the phone line and audio signals continuously

in order to deliver excellent separation. Our dual-convergence algorithm can achieve transmit-hybrid loss, typically exceeding 50 dB, without any setup.

From the front panel you can control on-hook/off-hook, and adjust headphone volume. Front-panel LEDs display signal levels and option status. The Send and Caller Volume controls are hidden behind an access panel to discourage unauthorized "tweaking". Five feature switches are also hidden behind the access panel. AGC (Automatic Gain Control) adjusts the caller volume to an average level. AGC will tame a loud caller, and boost a quiet caller or quiet long distance connection. Caller Ducking drops the Caller output level by 9 dB whenever the host speaks. This keeps the host "in charge" of the show, automatically making sure the caller never overpowers the host by attempting to

talk over the host's voice. Press the "Presence" button and you'll get a richer sound from the caller's voice. This digital filter brings back some of the low-end lost in transmission. The Test Tone generator sends a 1 kHz full level tone either down the phone line or out the Caller XLR jack. This tone represents the maximum level transmit into the phone line or out the XLR jacks. The Test Tone generator is not required for tuning the digital hybrid. Auto-Answer simply answers on the first ring and disconnects at the end of the call.

This wouldn't be a JK Audio product without its fill of common-sense features. Check out the front-panel headphone jack and volume control. You can monitor either the send signal, the caller's voice, or a mix of the two. This output is also sent to the rear panel screw terminals so you can easily add a monitor speaker. As a mat-

Remote Keypad

# Guest Module 1



Guest Module 1 gives you remote access to the on-hook/ off-hook and dial features of the Broadcast Host and innkeeper 1 series digital hybrids. This little time-saver gives you call control you simply can't get with an auxiliary telephone and a couple of switches. Connect Guest Module 1 to your Broadcast Host and innkeeper 1 series digital hybrid using an 8 pin RJ45 modular cable. This cable provides remote power so there is no need for batteries or an external power pack. The Call button will flicker when a call comes in. Press this button to answer or place a call. The button will stay lit when a call is present. When you dial on-air, the tones go out on the line, and do not come back mixed with the dial tone or caller signal. Guest Module 1 was designed exclusively for

JK Audio Broadcast Host and innkeeper 1 series digital hybrids.

### Specifications

Size: 3.75" x 4.75" x 1.6" (9.6 x 12 x 4 cm)  
Weight: 12 ounces

### Features

- DTMF keypad
- Keypad disable switch
- Talk/Dial Button
- Hangup Button
- Ring/Call LED



## innkeeper 1rx



CE

ter of fact, several remote control connections can be found on real screw terminals for ease of installation. Three balanced audio connections: mic/line switchable XLR input, XLR caller output and an additional, user-defined XLR output. And possibly the coolest feature: the innkeeper 1x can be remote controlled by either the optional Guest Module 1, the RIU-IP remote interface, or the included RS-232 cable. The Guest Module 1 allows remote Call, Drop, and DTMF dialing while the RIU-IP allows control of all functions of the innkeeper 1x through your web browser whether it is directly connected to your computer or via the internet from around the world. The RS-232 cable allows similar control using simple ASCII commands.

### Specifications (for innkeeper 1 series)

#### Input

Mic/Line: Female XLR 15 mV RMS (-34dBu) nom  
Mic/Line pad switch, Line = +6 dBu max

#### Output

Caller Out: Male XLR 200 ohms, 500 mV RMS (-4dBu) nom. +14 dBu max

Mix Out: Male XLR 200 ohms, 500 mV RMS (-4dBu) nom. +14 dBu max

Headphone: 1/4" Stereo 8 ohms, 250 mW per ch

Speaker: Screw Terminals 8 ohms, 1 watt

Phone Line Connector: RJ11C

Isolation: 1500 VAC

Ringer: 0.8B REN

Frequency Response, Telephone Side: 200 Hz–3600 Hz

Universal AC power input: (120–240 VAC, 50–60 Hz

Size: 1x — 1.75" x 7.3" x 10.5" (4.5 x 18.6 x 26.7 cm)

1rx — 1.75" x 7.3" x 19" (4.5 x 18.6 x 48.3 cm)

Weight: 1x — 5.2 pounds, 1rx — 5.7 pounds

### Features

- Excellent separation of caller and talent voice
- 16-bit DSP technology
- Proprietary auto null algorithm, 50 dB null
- Balanced XLR mic/line input
- Balanced XLR caller output
- Balanced XLR user-defined output
- Front-panel headphone jack
- Monitor speaker terminals on back
- Voice Presence Compensation
- Input/output LEDs
- Remote control screw terminals
- Remote control jack for Guest Module, RS-232 or optional IP remote
- Auto answer/disconnect
- AGC, Presence, Ducking, Tone Generator

## About Digital Hybrids

### Digital Hybrid

The purpose of a hybrid is to allow you to send and receive audio through a telephone line. The quality of the hybrid determines the amount of transmit audio that appears on the receive output jack, mixed with the caller's voice. We use a proprietary dual-convergence echo canceller algorithm which continuously

compares transmit and receive audio while building a model of the phone line. The first model is built within the first 200 milliseconds of the call. Afterwards, the algorithm continuously adapts to the phone line for the duration of the call. This system is not disturbed by changes such as someone taking an extension phone off-hook. Only your audio source is used as

input to the algorithm. It does not require any noise bursts or "quiet time" to complete its mission. Bottom Line... Excellent separation all the time.

## innkeeper 2



# innkeeper 2 and 4

Innkeeper 2 and innkeeper 4 squeeze two or four independent digital hybrids (respectively) into a 1U rack space. The front panel keypad, display, and handset jacks provide easy speed dialing and call setup. Digital hybrids allow you to send signals into the phone line while maintaining excellent separation between your voice and the caller. The balanced XLR output jacks contain only the caller's voice.

Digital hybrids connect audio signals to standard analog telephone lines without the transmit / receive crosstalk common to analog hybrids. The Digital Signal Processor (DSP) continuously monitors both the phone line and audio signals to deliver excellent separation. This proprietary, dual-convergence echo canceller algorithm can achieve excellent separation, typically exceeding 50 dB, without any setup and without sending a noise burst down the line.

The menu driven keypad and back lit display allow you to store 50 phone numbers by name in a phone list. You can also use the display to set features such as the number of rings before auto answer, master send channel selection, and test tone output. An auxiliary telephone jack is provided for each line. The auxiliary telephone is disconnected when you press the "Call" button, and reconnected when you press the "Drop" button.

Innkeeper 2 and 4 feature Auto-Answer/Auto Disconnect for use in IFB and monitoring applications. Other applications include: telephone interviews, talk shows, church PA interface, and conference room full duplex applications.

## Specifications

### Input

Line: (5) Balanced Female XLR, 20k ohms, 500 mV RMS (-4dBu) nom. +10 dBu max

### Output

Balanced: (4) Balanced male XLR, 200 ohms, 500 mV RMS (-4dBu) nom. +10 dBu max

Handset: Front panel handset jacks biased for electret handset (not included)

Phone Line: (4) RJ11C

Aux Phone: (4) RJ11C

Isolation: 1500 VAC

Ringer: 0.8B REN

Frequency Response:  
Telephone Side 200 Hz–3600 Hz

Power: 120-240 VAC power supply (internal).

Size: 19" x 7.3" x 1.75" (4.5 x 18.6 x 48.3 cm)

Weight: 7.2 pounds (3.2 kg)

## Features

- Excellent separation of send and receive audio
- Memory/Speed Dial from phone list
- 16 bit DSP technology
- Proprietary auto null algorithm, 50 dB null
- XLR line input, one per line
- XLR master input sends audio to selected lines
- XLR caller output, one per line
- Send & Receive level LED
- Remote control and LED status indication
- Monitor Handset Jacks
- Auto answer/disconnect



## innkeeper 4



## Functions of the innkeeper 2 and 4

### Master Send



Each phone line has an individual send and receive XLR jack. While this should be enough for most applications, there are several applications that require a "Master" audio input. This additional XLR input mixes with the audio of the individual channel send jack. By default, the master input will mix into all four channels. The front panel menu system allows you to turn off the master signal from any or all phone lines.

### Remote Control



Included with your innkeeper 4 is a small terminal board with a 5 foot cable that attaches to the remote jack on the back panel. This terminal block contains two pins for each phone line. One pin provides Off Hook indication which supplies current to a remote LED when the line is active. The second pin is for a remote toggle switch to take the corresponding line off or on hook.

### Keypad Dialing



Don't let the display and cursor keys scare you. If you need to place a call, just press the Call button on any line, then start dialing. To "hang up" simply press Drop.

### Menu System

The cursor keys guide you through several features including speed dialing, test tone generation, Auto-Answer ring count, and Master Send line muting. Speed dial list includes phone numbers referenced by an alpha text name such as "Bob Smith". Test tone generation allows you to send a 1 kHz signal down any phone line or out any Caller output jack. This signal allows you to set levels on your existing audio equipment. Test signals are not a part of the auto-null tuning algorithm. Auto-Answer can be set to pick up after 0-7 rings (0 = never answer).



# ComPack

Pick up this new handheld road tool to get audio in and out of analog phone lines, PBX systems, even cell phones. Perfect for Remote Broadcasts, IFB feeds, or interviews over any phone connection.

**Cell Phones:** Simply plug ComPack into the 2.5 mm headset jack of your wireless cell phone. Your phone will recognize ComPack as a headset, allowing you to send and receive audio through the phone.

**PBX Systems:** Unplug the handset from any analog or digital PBX phone and plug the coily cord into ComPack. You can now send and receive audio through the PBX telephone set.

**Analog Phones:** Plug ComPack into an RJ-11 jack, go off-hook and dial, or answer an incoming call.

ComPack also functions as a simple telecom interface for your beltpack intercom system. This no-frills feature allows you to connect the 3 pin male XLR to your beltpack intercom group. This provides a full duplex, always-on connection to any telephone network.

The ComPack cell phone interface was designed to take advantage of the increasing number of wireless phones that accept third party headsets and earpiece headsets. Please see *Wireless Phone Compatibility* on page 2.

## Specifications

### Input

XLR Female: 1 kohm, 15 mV RMS (-34dBu) nom  
 Mic/Line pad switch: Line = +6 dBu max  
 Line Input (3.5 mm ): 20 kohms, 250 mV RMS (-10 dBu) nom

### Output

Male XLR  
 Mix Output: 600 ohms balanced phone mix output  
 45 mV RMS (-25dBu) nom  
 Intercom mode: Pin 3 bidirectional unbalanced  
 Headphone: 1/4" stereo, 8 ohms, 500 mW  
 Phone Line: RJ11C  
 Isolation: 1500 VAC  
 Ringer LED: 0.9B REN  
 Keypad: DTMF  
 PBX Handset interface simulates electret, dynamic, and carbon handset microphone types  
 Wireless phone: 36" cable provided with 2.5 mm, 3 conductor headset plug.

Power: One 9 volt battery, AC power supply  
 120-240 VAC (included).

Size: 8" x 3" x 2.2" (20.3 x 7.6 x 5.6 cm)

Weight: 1.5 pounds (680 grams)

Shoulder strap included.

## Features

- XLR input (mic/line switch)
- 3.5 mm line input
- 1/4" headphone jack
- Works with conventional phone lines
- Works with analog and digital PBX or ISDN phones
- Works with most wireless phones
- XLR phone mix output switches to intercom link
- Transmit clip LED
- Battery test LED
- Keypad lockout switch
- Runs 20 hours on one 9 volt battery



# CellTap



Need to record your cell conversations? Connect CellTap between the 2.5 mm earpiece jack of your cell phone and your earpiece or headset. Now connect a tape recorder or powered speakers to the 3.5 mm mini jack. This audio output contains a nice mix of both sides of the conversation.

CellTap works with most wireless phones that accept a third party headset or earpiece.

Group Listen—Simply connect a powered speaker to the audio output jack and you will have a new conferencing capability. Everyone in the room can hear your conversation, but only the person wearing the headset can talk to the distant party. While this is not a speakerphone, in many cases it is more suitable for sales presentations or contract talks. Please see Wireless Phone Compatibility on page 2.

## Specifications

3.5 mm mono audio output jack: 600 ohms, 100 mV RMS (-18 dBm) nom.

2.5 mm headset jack: 36" cord with 2.5 mm headset plug provided

Power: Passive, no AC or battery power needed.

Size: 2" x 2" x 1.3" (5.1 x 5.1 x 3.3 cm)

Weight: 3.5 ounces (100 grams)

Included: One 60" cable, 3.5 mm mono male to 3.5 mm mono male

## Features

- 3.5mm audio output
- Passive, no AC or battery power needed
- Rugged diecast Aluminum



# Daptor Two

Remote Broadcasts or IFB feeds over a cell phone? Simply plug Daptor Two into the 2.5 mm headset jack of your cell phone. You can now send and receive audio from your mixer or tape recorder through the phone. Your cell phone will recognize Daptor Two as a headset which will disable the mic and speaker in the phone.

Daptor Two was designed to take advantage of the increasing number of wireless phones that accept third party headsets and earpieces. We've designed a circuit which emulates the electrical characteristics of these headsets. Please see Wireless Phone Compatibility on page 2.

Audio Connections—You may use either the XLR input or 1/4" input, not both. The XLR input jack is disconnected when a cable is plugged into the 1/4" input jack. The same is true for the XLR and 1/4" output jacks.



## Specifications

### Inputs:

XLR: 250 mV RMS (-10 dBu) nom. 0 dBu max  
1/4": mono unbalanced, line level, 600 ohms, 250 mV RMS (-10 dBu) nom. 0 dBu max

### Outputs:

XLR: 600 ohms balanced, mic level, 45 mV RMS (-25dBu) nom  
1/4": mono, unbalanced, mic level, -45 mV RMS (-25dBu) nom

Phone: 36" cable provided with 2.5 mm, 3 conductor headset plug

Power: Passive, no AC or battery power needed

Size: 4.4" x 2.7" x 1.2" (11.2 x 6.9 x 3.5 cm)

Weight: 7 ounces (200 grams)

## Features

- XLR and 1/4" in and out
- Passive, no AC or battery power needed
- Rugged diecast aluminum construction



# QuickTap



Connect the QuickTap between your telephone and handset for quick access to audio from any telephone.

Simply unplug the handset coily cord from the base of your telephone and plug it directly into the QuickTap. Then, using the supplied cable, connect the QuickTap to the base of the telephone. Now connect your audio equipment or powered speaker to the audio output jack. This jack contains a nice mix of both sides of the conversation, as well as the tones being pressed on the keypad.

The QuickTap does not work with cellular telephones or any telephone with a keypad in the handset

## Specifications

Line Output: 1/8" (3.5 mm) mono  
600 ohms, 100 mV RMS (-18dBu) nom

Size: 2" x 2" x 1.3" (5.1 x 5.1 x 3.3 cm)  
Weight: 3.4 ounces

Included: One 18" cable, RCA male to 3.5 mm male  
One 60" cable, 3.5 mm mono male to 3.5 mm mono male  
One 18" cable, handset plug to handset plug

## Features

- Works with analog, digital, PBX, and ISDN telephones
- 1/8" mono audio out
- Use the QuickTap to get audio into a sound card or portable recorder
- Get presentation quality audio using a powered speaker or PA system
- No battery or AC adapter needed!
- Durable diecast aluminum construction



# Pureformer



The Pureformer provides hum and noise reduction for sound cards and audio equipment, and removes ground loops and DC paths that can cause hum and signal breakup.

The Pureformer isolates the electrical grounds of two pieces of audio equipment. This is especially important in the case of computer audio cards connected to high quality/low noise audio equipment. The computer electrical ground is often filled with noise from disk drive activity and data transmission. Many audio cards use the same electrical ground for the computer

and the audio signal. When the computer audio card is connected to your studio equipment, the electrical noise from the computer can leak into the rest of your audio system.

The Pureformer completely isolates the electrical ground of the two systems and only allows audio signals to pass through. Pureformer cannot remove noise once it has been mixed with the audio signal, so it is important to find and treat the source of each problem.

## Specifications

Line Input: (2) RCA 600 ohms, 250 mV RMS (-10 dBu nom)  
Line Output: (2) RCA 600 ohms, 250 mV RMS (-10 dBu nom)  
Frequency Response: 20 Hz – 20 kHz (±) 0.1 dB  
Insertion Loss: 0.8 dB  
Size: 3.6" x 1.8" x 1.3" (9.2 x 4.6 x 3.3 cm)  
Weight: 5 ounces (150 grams)  
Included: One 60" Stereo RCA-RCA cable

## Features

- Just insert between your sound card and your audio mixer or amplifier
- High-quality, low-distortion, 600 ohm audio transformers
- Durable diecast aluminum construction.



# THAT-2

Connect the THAT-2 between your telephone and handset for quick access to audio in and out of the telephone. The THAT-2 is used by radio stations to record and play sound bites, and by TV and film sound crews to get IFB and dialog over phone lines.

The THAT-2 is the big brother of our model THAT-1, which is very popular with news reporters for its small yet rugged design. Over the years we've heard from many of our customers that they liked the THAT-1 but would prefer professional XLR jacks and compatibility with more telephone systems. Here is our answer... The THAT-2, a passive handset interface with professional and consumer jacks, separate input and output volume control, a selector switch for the different types of telephone systems, and still no batteries or AC needed!

Simply unplug the handset coily cord from the base of your telephone and plug it directly into the THAT-2. Then, using the supplied cable, connect the THAT-2 back to the telephone.

Now connect your audio equipment to the RCA or XLR jacks. The gray pushbutton selects which audio will be sent into the

telephone (OUT = talking on the handset, IN = sending audio in through the RCA or XLR jacks). The output jacks contain a nice mix of audio from both sides of the conversation as well as the tones being pressed on the telephone keypad. The THAT-2 has a three-position switch which accommodates electret, dynamic, and carbon telephone handset microphone types. The THAT-2 will emulate the type of microphone that is in the handset and allow you send audio into many different types of analog and digital PBX sets, as well as ISDN telephones. The THAT-2 does not work with cellular telephones or any telephone with a keypad in the handset.



Simply plug the THAT-2 between the handset and the base of your phone

## Specifications

### Line Input:

RCA: 2.5k ohms nom., 250 mV RMS (-10 dBu) nom. +12 dBu max

XLR female: 2.5k ohms nom., 250 mV RMS (-10 dBu) nom. +12 dBu max

### Line Output:

RCA: 2.5k ohms nom., 100 mV RMS (-18dBu) nom

XLR male: 2.5k ohms nom., 100 mV RMS (-18dBu) nom

Handset Interface: Biased for Electret, Dynamic, and Carbon handsets.

Size: 4.5" x 3.2" x 1.3"(11.4 x 8.2 x 3.3 cm)

Weight: 9 ounces (250 grams)

Included: One 18" cable, RCA male to 3.5 mm male  
One 18" cable, handset plug to handset plug

## Features

- Works with analog, digital, PBX, and ISDN telephones
- RCA and XLR line in and out
- Switch selects between carbon, dynamic, or electret handset types
- No battery or AC adapter needed!
- Durable diecast aluminum construction



# RemoteAmp

CE



The RemoteAmp is a simple battery-powered personal headphone amplifier.

Use the RemoteAmp as an IFB earpiece or headphone amplifier, or as an on-stage monitor headphone amplifier. This low-distortion, 1 watt amplifier will cut through the crowd noise without distortion.

The RemoteAmp clips to your belt and accepts a 3-pin XLR audio input from a mixer, distribution amplifier, telephone line hybrid, or a hand-

set interface like our QuickTap IFB. You'll like the convenience features, such as the separate power switch, which allows you to leave the volume control set at a comfortable level. And you'll appreciate the common-sense features like the battery test indicator and easy change battery door.

## Specifications

Line Input: XLR female 4000 ohms, 100 mV RMS (-18dBu) nom. +12 dBu max, 46 dB maximum gain

Output: 1/4" Stereo  
8 ohms, 1 watt maximum  
1/8" mono  
150 ohms, 100 milliwatts nominal

Size: 5.1" x 2.7" x 1.3" (13 x 6.9 x 3.3 cm)

Weight: 10 ounces (280 grams)

## Features

- 1/4" 8 ohm headphone jack
- 1/8" 150 ohm earpiece jack
- Battery test indicator
- Easy change battery compartment
- Durable diecast aluminum construction
- Stainless steel belt clip

## Product/Feature Comparison

Features	Cell Interface	Phone Line	Universal Handset	Microphone	XLR Line In	XLR Out	Headphones	Earpiece	RCA Line In	RCA Line Out	3.5 mm Line In	3.5 mm Line Out	AUX Handset	Battery	AC Power	Page Number
Products																
AutoHybrid		✓			✓	✓										5
Broadcast Host				1	1*	1	1				✓	✓			✓	6
CellTap	✓							1			✓	✓				15
Compack	✓	✓	✓	1	1*	1	1				✓			✓	✓	14
Daptor Two	✓				✓	✓										15
Four IFB		4			1	5							1	✓	✓	4
Innkeeper 1rx		1		1	1*	2	1								✓	11
Innkeeper 1x		1		1	1*	2	1								✓	10
Innkeeper 2		2			3	2							2		✓	12
Innkeeper 4		4			5	4							4		✓	13
Innkeeper PBX			✓	1	1*	1	1				✓	✓			✓	7
PBXport			✓	1	1*	2	1								✓	8
Pureformer									2	2						16
QuickTap			✓									✓				16
RemoteAmp					✓		1	1						✓		18
THAT-2			✓		✓	1			✓	✓						17

\* Denotes the number of microphone inputs with a mic/line switch

“CA PART...CA

“In diretta fra 3, 2, 1...”

“Scheinwerfer auf ...”

“live from

“Torniamo

“Ce soir les invités n’ont pas besoin

“we’re here at

“Eso es un Touchdown

**JK Audio**

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