06/06

THAT-2
Telephone Handset Audio Tap

User Guide

JK Audio

Features

The name THAT-2 stands for "Telephone Handset Audio Tap" which is a perfect description of this product. Simply install THAT-2 between the handset and the base of your telephone and you will be able to record audio from the telephone and send audio into the telephone.

To Phone Jacks
There are two input jacks on THAT-2. You can use either the red RCA phono jack on the front or the female XLR jack on the back. These are line level inputs for signals that you want to send down the phone line. These jacks can be connected to an audio output such as the headphone output jack on a tape recorder, the line output of a PC audio card, or the line output from a CD player or audio mixer.

From Phone Jacks
There are two output jacks on THAT-2. Both the white RCA phono jack on the front, and the male XLR jack carry the same signal.

These mic level output jacks provide a mix of both sides of the conversation. In other words, whatever you send down the phone line will come back on these jacks mixed with the audio from the other side of the call. This mix ratio is not adjustable, it is a function of the telephone, not our product. As it turns out, this is a suitable mix ratio for most applications.

FCC Registration

and that it be unplugged from the modular outlet until the problem has been corrected.

Repairs to this telephone equipment can only be made by the manufacturer or its authorized agents or by others who may be authorized by the FCC. For repair procedures, follow the instructions outlined under the warranty section of the manual.

4. Rights of the telephone company
If telephone equipment is causing harm to the network, the telephone company may temporarily discontinue your telephone service. If possible, they will notify you before they interrupt service. If advanced notice is not practical, you will be notified as soon as possible. You will be given the opportunity to correct the problem, and you will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your JK Audio product. If such changes are planned, you will be notified.

If this telephone equipment is to be used with a telephone that is leased or owned by another party, permission to connect this telephone equiment to their telephone must first be obtained.

FCC Registration

Your new JK Audio product has been registered with the Federal Communications Commission (FCC). This product complies with the standards in Part 68 of the FCC rules. The FCC requires us to provide the following information:

1. Connection and use with the nationwide telephone network

The FCC requires that you connect this telephone equipment to the national telephone network through a FCC registered telephone.

This equipment may not be used with Party Line Service or Coin Telephone Lines.

2. Information for the telephone company

Upon request from your local telephone company, you are required to provide the following information:

a) The "line" to which you will connect the telephone equipment (that is, your telephone number), and

b) The telephone equipment's FCC registration number. This can be found on the bottom of your telephone equipment.

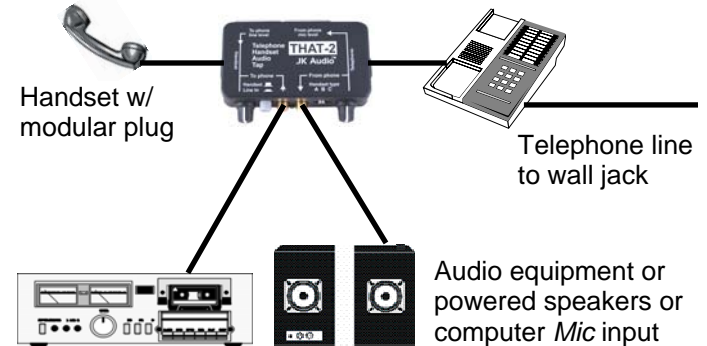**3. Repair Instructions**

If it is determined that your telephone equipment is malfunctioning, the FCC requires that it not be used

Connection

THAT-2 connects between the handset and the base of your telephone. Follow these simple steps......

1. Unplug the modular handset cord from your telephone base.
2. Using the black handset jumper cord that we have provided, connect the *Telephone* jack of THAT-2 to the handset jack on your telephone base.
3. Plug your handset cord, and handset, into the *Handset* jack on THAT-2.
4. Connect your audio equipment to the line input and output jacks on THAT-2.

Not for use with telephones that have a keypad in the handset.

Handset w/ modular plug

Telephone line to wall jack

Audio equipment or powered speakers or computer *Mic* input

Operation

The supplied adapter cable allows you to take the left channel from a 1/8" mini stereo headphone or mono microphone jack and attach it to the RCA jacks on THAT-2.

Handset Type **Switch**
The three position switch on the front of THAT-2 selects the type of microphone that is in the handset of your telephone. When you push the *Line In* button in, THAT-2 replaces the handset microphone signal with a circuit that must match the characteristics of the handset microphone.

The *Handset Type* switch can cover the main three microphone types, but keep in mind that there is no industry standard for microphone types or characteristics and therefore we cannot guarantee a perfect match with every telephone. There is no way to tell which type of mic is in your telephone handset. Simply use the position that sounds best without clipping or signal break-up.

Switch Position	Handset Microphone Type
A	Electret
B	Dynamic
C	Carbon

Note: Not all telephones are built alike so we cannot guarantee THAT-2 will work with every handset design available. We designed the interface to work with most popular designs.

Specifications

Line Input:

	Connector:	
	Unbalanced	RCA Phono Jack
	Balanced	XLR female
	Input Impedance	10 k ohms
	Level	250 mV RMS
	Max input	+12 dBM

Line Output:

	Connector:	
	Unbalanced	RCA Phono Jack
	Balanced	XLR male
	Output Impedance	600 ohms
	Level	100 mV RMS
	Max Output	-16 dBm

Isolation from phone line: 1500 Volts

Handset and Telephone connectors:
Modular 4pin/4wire RJ-22 handset jacks

Handset Compatibility:
THAT-2 is designed to work with most carbon, dynamic and electret handsets.

Not for use with telephones that have a keypad in the handset.

FAQ's

? **We're using THAT-2 to get caller audio to broadcast on our call in radio show. It works but we'd like to get better sound quality. What do we do?**

! THAT-2 was not really designed to do what you're talking about. As you said, it works but not very well. You should consider getting an Innkeeper digital hybrid. The Innkeeper was designed specifically for this purpose.

Operation

The *Handset / Line In* button selects which signal will be sent down the phone line; the handset microphone, or the line input jack.

When the *Handset / Line In* button is out, you can use the handset to speak and listen as you normally would. The sound that you hear on the handset is always available on the *From Phone* output jack.

With the button in, the handset mic is disconnected and the line input is connected to send audio signals down the line.

You can also use the *Handset / Line In* button to turn off the handset mic if you are listening to the line output signal over a loudspeaker. This will prevent feedback between the handset microphone and loudspeaker. In any case you can always listen over the handset receiver.

We designed this interface to work with most popular telephone designs. If a conflict arises it will typically be on the line input side. If you attempt to send voice band signals down the line input jack and the distant party complains that the level is too loud or severely distorted (clipping), try to lower the transmit signal on your audio equipment. If this does not help, discontinue use immediately.

? How do I use a microphone with the THAT-2?

! THAT-2 needs a "Line level" signal to send audio down the phone line. You will either have to use a microphone pre-amplifier or a mic mixer.

? I have been using my THAT-2 for recording and it works great but when I try to send audio down the line it won't work.

! Several things could be causing this problem: First you must send a line level signal into the "To Phone" jack on THAT-2. Second, make sure the gray button is in the "In" position. This disables the handset mic and enables the audio input. Third, check the ABC switch.

? I'm using THAT-2 for interview recording and playback over the telephone. Every time I press in the gray button I get a loud squeal and feed-back. How do I fix this?

! Try changing the setting of the ABC handset selector switch. If the handset type is not set correctly you could get the feedback you are describing. Trial and error works best to find the right handset type but this info also may help. Handset Types:

- A=Electret
- B=Dynamic
- C=Carbon

? What is the gray pushbutton on THAT-2 used for?

! The button is used to select which audio signal will be sent into the telephone.

    OUT = talking on the handset

    IN = sending audio through the RCA jack

Keep in mind that you cannot send audio into the RCA jack and talk on the handset at the same time. However, any audio sent into the phone can be heard on the handset and is available on the RCA output jack at all times.

? Can I get an adapter that will allow me to connect THAT-2 to the wall jack instead of the phone?

! No, THAT-2 doesn't replace your phone, but works in conjunction with it. You will need to plug it in between the telephone base and the telephone handset.

? I have everything connected correctly. Why can't the caller hear me?

! You cannot use the speakerphone function on your telephone during your recording. THAT-2 accesses the audio through the handset cord. With the speak-erphone turned on, there is no audio going through the handset.