User's Guide

Venture-Base

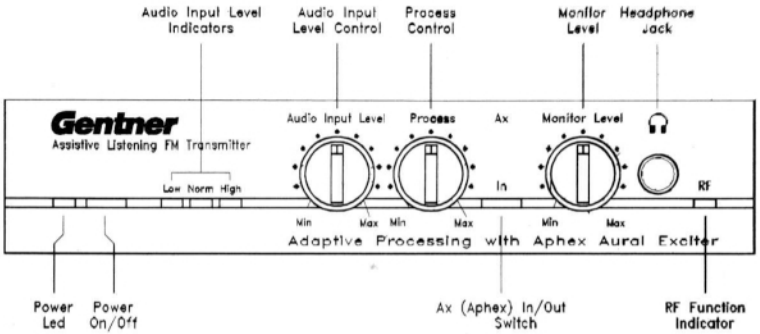
Assistive Listening FM Transmitter

ASSISTIVE LISTENING SYSTEMS

Venture-Base Installation and Operations Manual, September 1998 (Rev. 1.0)

Contents

Front Panel Controls



Power LED. Lights when power is applied.

Power On/Off. Push to turn ON/OFF the Venture-Base.

Audio Level LEDs. Lights indicate the incoming audio level:

- Amber=Low
- Green=Normal (red flashes are normal)
- Solid Red=High.

Audio Input Level. Controls the audio-input level. To set, slowly turn up the control (with audio playing) while monitoring the LED indicators [3], until the green LED is lit 90–95 percent of the time (red should flash occasionally.

Process. Controls the overall compression level. Set to where most pleasing (typically at 10 o'clock).

In Button. Activates/deactivates the Aphex Aural Exciter® process.

Monitor Level. Controls the level of the audio at the ∩ jack [8].

∩. Provides easy monitoring of transmitter operation. Output is 1W, capable of driving most headphones.

HEADPHONE NOTE:
Ensure that the headphone jack does not make metal contact with the face place of the Venture-Base.

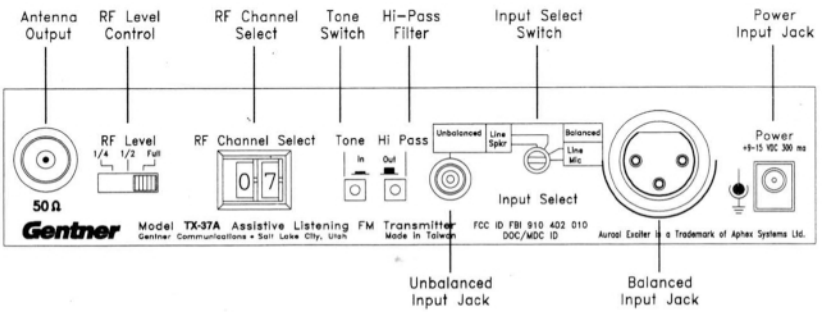
RF. Indicates proper RF-circuit function to simplify system troubleshooting (e.g. no signal being received). When lit, the LED indicates RF signal presence.

Set Audio Level

Turn the sound system and the transmitter ON and provide a program source. Speak into the microphone or connect an audio source to the sound system. Slowly raise the AUDIO INPUT LEVEL control [4] until the amber and green LEDs are ON and the red LED flashes 5-10 percent [3].

The AUDIO INPUT LEVEL control is typically set between 9 o'clock and 3 o'clock. If the input cannot be set easily with the front panel control, try setting the input select switch on the back panel to a higher or lower setting, or change the output level of your source device.

Back Panel Controls



Antenna Output. Connects the supplied local antenna or the remote antenna. *Do not operate the transmitter without the antenna.*

RF Level Control. Sets the RF output to one-quarter, half or full power to control the amount of coverage and to reduce the chance of interference.

Setting the RF Level
Transmitters must never be set to the same frequency in the same location. Channels must be set as far apart from each other as possible. Test the reception with the RF level at one-half or one-quarter power. The lower it can be operated satisfactorily, the less chance there will be for interference with another system.

RF Channel Select. RF channels can be changed by setting the thumbwheel to any channel from 01–19. The corresponding frequencies are indicated on the top of the transmitter. If set other than 01–19, the system defaults to channel 01.

Tone Switch. Sends a 40Hz test tone through the audio circuit to test the transmitter and aid in tuning receivers.

Hi Pass Filter. Activates the high-pass filter. If the system is to be used primarily with voice transmission, set to ON. The switch reduces reverberations (e.g. wind noise).

Unbalanced Input Jack. The unbalanced RCA audio input jack is a 10 kOhm input intended for connection of unbalanced signals from line/ speaker-level outputs.

Input Select Switch. Selects the input source from balanced mic and line-level signals to unbalanced line and speaker-level signals. Sets with a screwdriver.

Balanced Input Jack. The balanced audio input XLR connector is 600 Ohms and transformer balanced for balanced mic and line level-input signals.

Power Input Jack. Requires 11-15Vdc a500mA, supplied by the provided AC power supply.

Reception Check

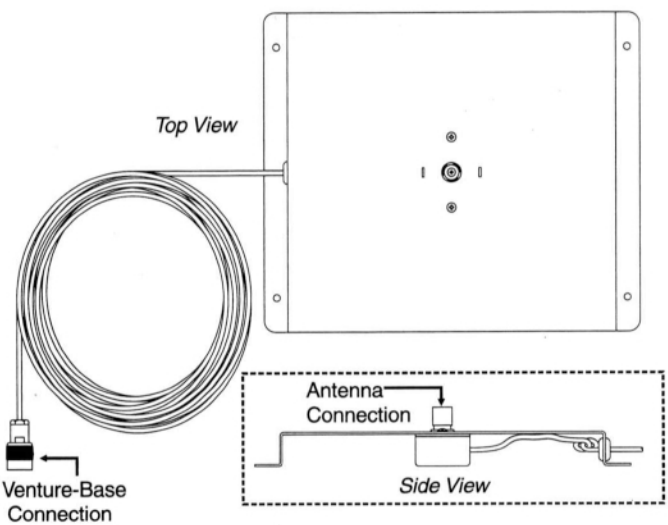
Using the tone or other audio source, walk around with the receiver. Verify the reception in all parts of the room. If reception is not optimal, move the transmitter antenna to another location and repeat this procedure.

Installation

1—Antenna Connection

Attach the provided rubber whip antenna to the modified TNC connector [1] (page 8). It may be installed directly on the rear of the Venture-Base, or remotely mounted on the supplied antenna mount and 49-foot cable (below).

Unless the transmitter is used in a very small room, best performance is with the remote antenna placed away from the Venture-Base, but as close to the receiver(s) as possible.



2—Audio Connection

Microphone

Almost any 600 Ohm dynamic or self-powered condenser microphone can be plugged into the balanced XLR connector. When doing so, set the

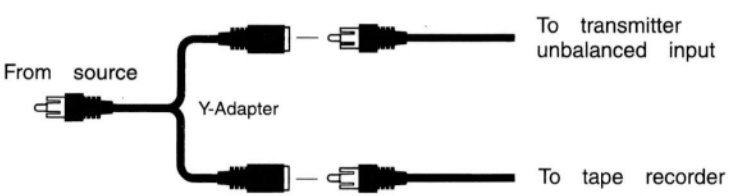
input select switch to MIC. An unbalanced microphone may be used with a suitable adapter. However, Gentner Communications recommends that a balanced microphone be used to eliminate noise pickup.

Line Input

The line input is most commonly used when connecting the Venture-Base to a sound system amplifier or mixer. If the source has a low impedance, balanced output (auxiliary, tape, etc.), use the XLR connector.

If a 10 kOhm unbalanced line or tape output is available (usually an RCA jack), use a suitable cable to connect this output to the RCA line input on the transmitter. After, set the input select switch to the proper position.

If using a tape recorder or other device already connected to the line out, a Y cable (below) may be used to split the signal between the transmitter and the tape recorder. This type of adapter is generally available at electronic supply stores.



Installation Continued

Speaker Input

If no suitable signals are available, the Venture-Base can be connected to a speaker-level output as a last resort. At these low levels, an amplifier output may be very noisy and subject to interference. Connect directly to the amplifier out, not to the remote speaker. If the transmitter is connected to the remote speaker and noise results, turn down the amplifier. The input to the transmitter is probably overdriven.

3—Apply Power

Plug the supplied AC adapter into a 110–120Vac power source, and plug the end of the cord into the sub-mini power jack. The front panel contains the push-on/push-off switch. Turn ON the power and monitor the front-panel power LED. If the transmitter is receiving electricity, the LED will light.

4—Rack Mounting Option (remote antenna necessary)

The Venture-Base may be rack mounted with the optional single-wide or double-wide rack mount kits. Contact Gentner Communications for kit availability and pricing.

Position the remote antenna so it is not close to any vertical metal surface. For best performance, place it on a horizontal metal surface. To enhance reception, maintain a line of sight with the receivers. Walls containing large amounts of wiring, metal studs or concrete can block or reduce the transmitter signal.

RF SIGNAL NOTE: Any RF system is susceptible to "dropouts" resulting in a noisy signal. Move antenna around until the signal is clear.

Controlling Interference

With any type of RF device, other RF sources can interfere with reception.

Interference can take the form of rising-and-falling audio. To verify on-channel interference, take the receiver to the place where the interference is worst and turn off the transmitter. The interfering signal should now come in stronger. Since the Venture-Base is frequency-agile, you can set it to another channel and retune the receivers to move away from the interference.

If more than one Venture-Base is operating in the same location, keep the channels used as far apart from each other as possible. Transmitters should never be set to the same frequency in the same location.

Frequency

Frequency Chart

*Frequencies are in MHz

Channel	Frequency
01	216.025
02	216.075
03	216.125
04	216.175
05	216.225
06	216.275
07	216.325
08	216.375
09	216.425
10	216.525
11	216.575
12	216.625
13	216.675
14	216.725
15	216.775
16	216.825
17	216.875
18	216.925
19	216.975

Specifications

Venture-Base

Dimensions:	8.25"/20.96cm W x 1.75"/ 4.5cm H x 7.25"/18.42cm D
Weight:	2.5 lb./13 kg. (dry)

Audio Inputs

MIC:	XLR, 600 Ohm balanced,10mV
LINE:	XLR, 600 Ohm balanced, 1V
LINE:	RCA, 10K unbalanced, 1V
SPEAKER:	RCA, unbalanced

Connectors

HEADPHONE:	1/4" Phono
ANTENNA:	Modified TNC, 50 Ohm
POWER:	Sub-mini

Power Requirements:

9-15Vdc at 300mA

Audio Performance

AGC Range:	40dB
Manual Input Level Control:	20dB
Signal to Noise Ratio:	52dB
Transmission Type:	FM modulation
Maximum Deviation:	± 10kHz, 20kHz total
Maximum Radiated Power:	1600uV/m at 30M
Frequency Control:	Digitally synthesized, crystal controlled
Frequency Stability:	0.005%
RF Level Adjust:	1/4, 1/2, and Full Power
Selectable Frequencies:	19 channels, 216 MHz

Compliance

Tested to Comply with FCC Standards

The Gentner Venture-Base Assistive Listening Transmitter complies with Part 95 of the FCC Rules.

This devise may not interfere with TV reception or federal government radar, and must accept any interference received, including interference that may cause undesired operation.

This transmitter is authorized by rule under the Low Power Radio Service (47 C.F.R. Part 95) and must not cause harmful interference to TV reception or United States Navy SPASUR installations. You do not need an FCC license to operate this transmitter. This transmitter may only be used to provide: auditory assistance to persons with disabilities, persons who require language translation, or persons in educational settings; health care services to the ill; law enforcement tracking services under agreement system (AMTS) network control communications. Two-way voice communications and all other types of uses not mentioned above are expressly prohibited.

Industry Canada

This device complies with the requirements of the Department of Communications (DOC of Canada), as specified in document RSS-210. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesirable operation of the device.

If TV channel 13 is used in the area, the installer shall reduce or adjust the RF radiated power so that nearby TV channel 13 receivers do not receive radio interference from the system.

Warranty

Gentner Communications Corporation (Manufacturer) warrants that this Assistive Listening System (ALS) product is free of defects in both materials and workmanship. Should any part of this equipment be defective, Manufacturer agrees, at its option, to:

A. Repair or replace any defective ALS product, free of charge (except transportation charges), for a period of one year from the date of the original purchase, provided the owner returns the equipment to the Manufacturer at the address set forth below. No charge will be made for parts or labor during this period;

B. Furnish replacement for any defective ALS product parts in the equipment for a period of one year from the date of original purchase. Replacement parts shall be furnished without charge, except labor and transportation;

C. Repair or replace any defective ALS accessory, free of charge (except transportation charges), for a period of 60 days from the date of the original purchase, provided the owner returns the equipment to the Manufacturer at the address set forth below. No charge will be made for parts or labor during this period.

This Warranty excludes assembled products not manufactured by Manufacturer whether or not they are incorporated in a Manufacturer product or sold under a Manufacturer part or model number.

THIS WARRANTY IS VOID IF:

A. The equipment has been damaged by negligence, accident, act of God or mishandling, or has not been operated in accordance with the procedures described in the operating and technical instructions; or,

B. The equipment has been altered or repaired by other than Manufacturer or an authorized service representative of Manufacturer; or,

Warranty Continued

C. Adaptations or accessories other than those manufactured or provided by Manufacturer have been made or attached to the equipment which, in the determination of Manufacturer, shall have affected the performance, safety or reliability of the equipment; or,

D. The equipment's original serial number has been modified or removed.

NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, APPLIES TO THE EQUIPMENT, nor is any person or company authorized to assume any warranty for Manufacturer or any other liability in connection with the sale of Manufacturer's products.

Manufacturer does not assume any responsibility for 1) consequential damages, 2) expenses or loss of revenue or property, 3) inconvenience or interruption in operation experienced by the customer due to a malfunction in the purchased equipment. No warranty service performed on any product shall extend the applicable warranty period.

In case of unsatisfactory operation, the purchaser shall promptly notify Manufacturer at the address set forth below in writing, giving full particulars as to the defects or unsatisfactory operation. Upon receipt of such notice, Manufacturer will give instructions respecting the shipment of the equipment, or such other matters as it elects to honor this warranty as above provided. This warranty does not cover damage to the equipment during shipment and Manufacturer assumes no responsibility for such damage. All shipping costs shall be paid by customer. This warranty extends only to the original purchaser and is not assignable or transferable.

Gentner Communications Corp., 1825 Research Way
Salt Lake City, Utah 84119

Contact Numbers

USA Sales and Technical Support:

Sales..... 1.800.945.7730
Technical Support.....1.800.283.5936
Fax..... 1.800.933.5107
Fax-On-Demand..... 1.800.695.8110

International Sales and Technical Support:

Sales..... 1.801.975.7200
Technical Support.....1.801.974.3760
Fax..... 1.801.977.0087
Fax-On-Demand..... 1.801.974.3661

Other Contact Information:

World Wide Web.....www.gentner.com

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Gentner

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