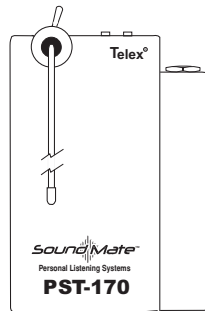


# Telex

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## Operating Instructions



**SoundMate™**  
Personal Listening Systems

**PST-170**  
**17 Channel**  
**Synthesized Transmitter**

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**TELEX®**

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### **PST-170 SPECIFICATIONS**

Number of Channels ..... 17 User Selectable Channels  
Power Output ..... 80,000 uV/M at 3 meters, maximum  
Antenna ..... Permanently attached trailing wire  
Modulation ..... FM, +/- 25 KHz Deviation  
Frequency Response (System) ..... 100 Hz to 10,000 Hz

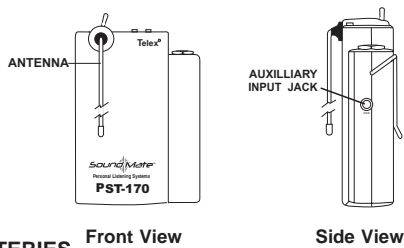
Audio Input:

Microphone, 7.75 mV RMS input for 25 KHz deviation.  
Impedance, 10 K Ohms, nominal.  
Aux. Input, 100 mV. Unbalanced, 100K Ohms, nominal.

Audio Input Level ..... 0-42 dB attenuation in 6 dB steps  
Signal to Noise Ratio: ..... Normal 58 dB  
EDR enabled 77 dB  
Pre-emphasis ..... 115 u Seconds  
Power ..... 2AA Alkaline or Nickel Cadmium batteries  
Battery Life ..... 8 Hrs - Alkaline  
4 Hrs - Nickel-cadmium

### **CHANNEL ASSIGNMENT**

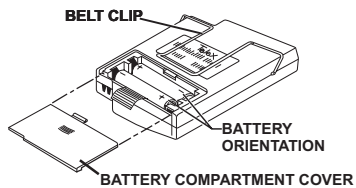
<b>Channel #</b>	<b>Freq. (MHz)</b>	<b>Channel #</b>	<b>Freq. (MHz)</b>
A	72.1	J	75.5
B	72.2	K	75.6
C	72.3	L	75.7
D	72.4	M	75.8
E	72.5	N	75.9
F	72.6	O	74.7
G	72.7	P	75.3
H	72.8	Q	75.4
I	72.9		



**BATTERIES**

The PST-170 Transmitter uses two AA batteries. Position them in the battery compartment as illustrated. You can expect 8 hours of operation from alkaline batteries and 4 hours on nickel-cadmium batteries. Charge Pins are provided on the bottom of the unit that fit Telex drop in chargers.

**CAUTION:** Do not attempt to recharge alkaline batteries as this may result in personal injury.



**NOTE:** If the unit is to be stored for any length of time be sure to remove the batteries from the unit.

### **Transmitter Channel**

The PST-170 Transmitter may be set to any one of 17 channels.

Two Transmitters cannot operate on the same channel unless separated by 300 feet (91 m) or more (which is the average maximum operating range). If two transmitters are operating on the same channel inside this perimeter, the receivers will pick up the FM signal of both transmitters, causing a squealing sound to be heard.

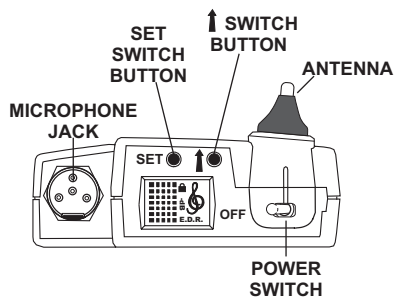
### **Antenna**

The transmitter uses a flexible wire "trailing" antenna that is permanently attached to comply with FCC Part 15 Rules. Do not cut or lengthen the antenna. Do not coil the antenna and place in your pocket. This is a tuned antenna and modification will shorten the range.

### **Audio Input**

There are 2 audio input jacks on the transmitter. One is the Auxiliary input designed to allow audio devices such as teachers aids or tape players to be used. The input jack is a 1/8 inch (3.5mm) stereo/mono jack. Typical input level is 100 mV RMS maximum for normal modulation. More than this input will cause the audio to "limit" which may sound unnatural. Reduce the input level, if this should happen, by turning down the input device.

The second jack is the microphone input. This jack is located on the top panel "step" of the transmitter. The microphone is supplied with the transmitter but other types can be used as well.



Top View

#### Frequency/Channel Considerations

As with any radio device, interference can occur at any time. The frequencies offered are shared with other legitimate users. Check the frequency/channel with a receiver to see if any interference is present. If interference is present, choose a different channel. The severity of interference varies with location and distance to the interfering station. If the interference is weak on all channels, this is probably acceptable since the PST-170 will cover the interference and is unlikely to interfere with other users. Multiple Channel Systems require other considerations but each channel should be checked as above.

### Placement of the Transmitter and Microphone

Place the transmitter on the users belt or in their pocket, preferably with the antenna facing the receiver. Do not coil the antenna and put it in a pocket. This will severely reduce the operating range.

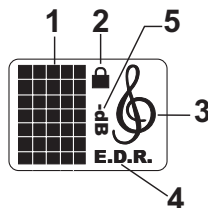
Place the microphone about 10 to 12 inches below the mouth of the user.

### Transmitter Operation

Turn on the transmitter with the toggle switch on top of the PST-170.





### LCD Display

1. Channel Display A through Q, low battery indicator and input level
2. Lock Indicator (see Change Lock Out)
3. Overmodulation indicator (when symbol is showing)
4. Enhanced Dynamic Range Indicator
5. Input level adjustment indicator



LCD Display

### **Channel Selection and Input Adjustment**

1. Turn the receiver on and plug a microphone into the mic jack. A channel letter will show in the display.
2. Press the set button once and the Channel indicator will flash.
3. Press the  button and the Channel will cycle up. Match the channel to the receivers being used (SR-50, SR-100, SR-400 or check frequency chart to match other brands).
4. Press SET, the channel indicator will stop flashing and the input level will be displayed and flash.
5. Speak into the microphone while watching the display. The  symbol will be displayed when the input is overmodulating (too strong). Push the ARROW button to adjust the input level until the  symbol shows just on the loudest speech.
6. When the input is adjusted, press SET and the display will stop flashing and the channel will be displayed.
7. If the  lights up during operations, it is indicating overmodulation. Re-adjust the input level.

If the microphone and an auxiliary device is used at the same time, it is preferable to set the auxiliary input device with its own control.

Adjust the appropriate output level control until loud program material passages sound natural in the receiver. This allows sufficient "head room" to prevent peak distortion on loud inputs.

### **Enhanced Dynamic Range (E.D.R.) Operation**

The Telex PST-170 Transmitter is equipped with E.D.R., Enhanced Dynamic Range (companded) audio. This mode greatly improves the Audio Signal to Noise Ratio when used with the Telex Model SR-400 receiver. The E.D.R. mode must be selected on both the transmitter and receiver to be effective.

1. To engage the E.D.R. function turn the PST-170 off with the toggle switch.
2. Press and hold the SET button while you turn the PST-170 back on. The E.D.R symbol will be display in the lower right corner to indicate the mode is active.
3. Repeat the procedure to turn off the E.D.R. function.

### **Change Lock Out**

The PST-170 SET button can be locked to prevent E.D.R. activation, and unintended channel changes.

1. To engage the Lock Out Feature, press the SET and ARROW buttons at the same time and hold them down for 10 seconds.
2. The padlock symbol will appear and the set button is disabled.
3. To unlock the system, press the SET and ARROW buttons and hold them for 10 seconds or until the padlock symbol disappears.



### **Low Battery Indication**

1. When there is approximately 10% of the battery life left, a battery symbol will flash alternately with the Channel letter in the LCD display.
2. When there is only 5% battery life left, the battery symbol will constantly flash in the display.

### **System Walk Through**

Now that the transmitter is set up, you should be able to hear the program material on the receiver. Walk the receiver through the area that it is intended to be used in. Check for any noise or interference that would cause undesired operation. Some of the causes of poor performance are listed below.

- Transmitter antenna coiled up
- Poor transmitter location
- Poor receiver location
- Interference
- Local AC Line noise
- RF "Trouble Spots"
- Operating distance beyond system capability
- Malfunctioning System, receiver or transmitter

**FCC INFORMATION**

The Telex Model PST-170 is authorized under FCC Rules Part 15. Licensing of Telex equipment is the user's responsibility and licensability depends upon the user's classification, and frequency selected.

**CAUTION:** Changes or modification made by the user could void the user's authority to operate the equipment.

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 undesired operation of the device.

**ACCESSORIES**

<b>Description</b>	<b>Catalog No.</b>
OLM-10 microphone (supplied with PST-170) . . . . .	OLM10
ELM-22 Micro Mini lapel microphone . . . . .	70925-001
RE92Tx Unidirectional lapel microphone . . . . .	301456000
SCHS-745 headworn microphone . . . . .	745TA4
BC-100 battery charger-2 pocket . . . . . (also fits SR-50/400 receivers)	71216-000
Waist Belt . . . . .	17794-002
Cell Phone style belt clip . . . . .	879518-1

**WARRANTY INFORMATION**

FILL OUT AND RETAIN THIS PORTION FOR YOUR RECORDS

Model(s) \_\_\_\_\_ Serial No(s): \_\_\_\_\_  
Date of Purchase \_\_\_\_\_  
Purchased From \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**LIMITED WARRANTY (VALID UNITED STATES AND CANADA ONLY)**

TELEX Communications, Inc. ("Telex") warrants to the user, who originally purchased the serialized product delivered with this card, that the product will be free from defects in material and workmanship for the following periods after such date of purchase. Material 36 months, workmanship 36 months. Microphones, earphones, neckloops, cables & connectors are warranted for ninety days. Telex will, at its option, repair or replace free of charge such defective products subject to the following conditions:

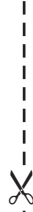
1. Delivery of the product or parts postage prepaid to the Telex dealer, authorized service facility or factory.
2. Determination by Telex that a defect exists and is covered by limited warranty. Defects due to alteration, repair by unauthorized persons, insertion of non-Telex parts, misuse, accidental damage, use of the equipment for purposes other than those for which it was designed, and the like, are not covered by this limited warranty and repairs thereof will be subject to normal service charges.
3. Repairs and replacement parts are covered under this limited warranty only for the unexpired term of the original limited warranty.
4. Products purchased from unauthorized dealers are not warranted.
5. You must fill out and return the product warranty card to register the purchase date of serialized items. A copy of the bill of sale showing the date of purchase must accompany all warranty work.

THIS LIMITED WARRANTY IS EXPRESSLY IN LIEU OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXTENDS BEYOND THE TERM HEREOF. THE REMEDIES PROVIDED BY THIS LIMITED WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON. NO PERSON HAS ANY AUTHORITY TO BIND TELEX TO ANY REPRESENTATION OR WARRANTY OTHER THAN THOSE PROVIDED BY THIS LIMITED WARRANTY. TELEX SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY FAILURE OR OTHERWISE OF THE PRODUCT.

Some states do not allow exclusions or limitations of incidental or consequential damages or limitations on how long an implied warranty lasts, so the limitations or exclusions herein may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Detach Warranty Registration and mail to:

Telex Communications, Inc.  
12000 Portland Ave. South,  
Burnsville, MN 55337



**WARRANTY REGISTRATION**  
SOUND ENHANCEMENT SYSTEMS  
Limited Warranty (Previous Page)

Owner's Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Purchased From \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Date of Purchase \_\_\_\_\_  
Model No(s): \_\_\_\_\_ Serial No(s): \_\_\_\_\_

**TELEX<sup>®</sup>**

TELEX COMMUNICATIONS, INC. 12000 Portland Ave. South, Burnsville, MN 55337

PN 38110370

June 2004

Made in U.S.A.