



INSTALLATION AND OPERATION INSTRUCTIONS

MODEL 861 BACKGROUND MUSIC RECEIVER

Model 861 is an all solid state Mono background music receiver consisting of a sensitive Hi Fidelity AM-FM Tuner and a 15 watt (RMS) audio amplifier with microphone pre-amplifier. The unit has an external amplifier jack, a crystal phono jack, a Multiplex Converter jack, and a microphone jack. It also has speaker outputs for 8 ohms as well as 25 and 70 volt line. Provision is made for matching either a low or high impedance microphone to the input of the amplifier by means of a selector switch. Included is a microphone precedence circuit to permit suppression of the music channel while paging.

UNPACKING:

The unit is to be removed carefully from the carton and inspected for any possible damage in transit. If there is any evidence of any damage which might have occurred in shipment, notify your dealer at once, or the transportation company which delivered it. Claims for damage sustained in transit must be made upon the Carrier. Save all packing material for inspection by the claim agent who will furnish you with the proper forms and will also give you the necessary instructions for filing a claim. In addition to the Unit, there should be a warranty card included in the carton.

To insure proper servicing and to protect your rights under the warranty, be sure to fill in the warranty registration card without delay and mail to the factory.

WARRANTY

This unit has been very carefully inspected and should require no further service. Each unit is warranted to be free from defects in material and workmanship under normal use and service for a period of one year from date of delivery to the original purchaser. If this unit appears to be defective, the factory will repair any unit returned within said one year, providing all transportation charges are pre-paid, and which our examination shall disclose to our satisfaction to be defective.

This Warranty does not include free labor, nor is it applicable to any unit which shall have been subject to accident, tampered with, mis-used, abused, or altered in any manner whatsoever. Further, this Warranty shall not apply to any unit which has been connected improperly.

It is recommended that any unit on which service is required, be processed through your dealer wherever possible.

This Warranty is expressly in lieu of all other Warranties, expressed or implied, and of all other obligations or liabilities on our part. We neither assume nor authorize any other person to assume for us any other liability in connection with the products manufactured by Trutone Electronics, Inc.

INSTALLATION:

Because of its attractive appearance the Receiver may be placed on a table or a shelf. Although the unit has ample vents for normal ventilation, sufficient space should be allowed around it to permit free air flow. DO NOT PLACE it on top of vacuum tube equipment. DO NOT STORE OR OPERATE it in areas where the ambient temperature exceeds 140 degrees Fahrenheit. If installed in a cabinet, ample ventilation must be allowed around the unit.

Plug the AC line cord in any outlet furnishing 105 to 120 volts, 60 cycles AC.

An AC receptacle is located on the back of the chassis to supply power to other components such as phonograph motor, etc. The auxiliary equipment connected to the AC receptacle is controlled by the POWER on-off switch so that turning off the unit turns off all equipment.

CONNECTIONS:

All input connections are made on the rear panel of the amplifier.

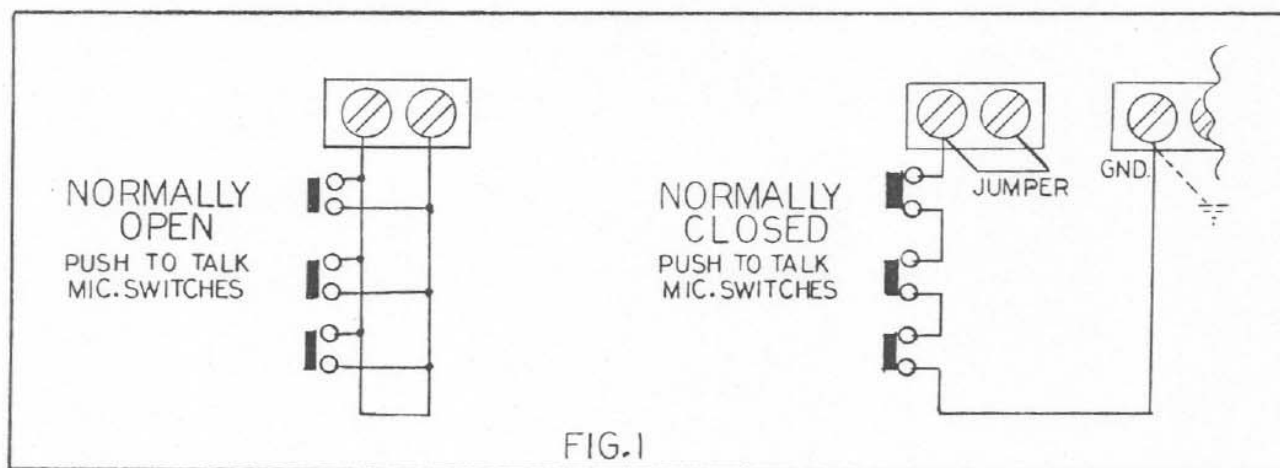
The screw terminals for the speaker connections are located at the center on the rear panel. Any ordinary insulated wire, such as parallel lamp cord, is suitable for hooking up the unit directly to the voice coils of speakers or to 25 or 70 volt line transformers.

When a speaker with an impedance of 8 ohms or more is connected to the amplifier, use the terminals on the amplifier marked "GND" and "8". The 8 ohm output is designed to give maximum output when operated with an 8 ohm speaker. Two 8 ohm speakers connected in parallel or a 4 ohm speaker will deteriorate the performance of the unit and cause the circuit breaker to trip.

When using 25 or 70 volt line transformer(s), connect the speaker transformer(s) to the terminals marked "GND" and "25V" or "70V" according to the line desired. Connecting a total matching impedance of less than 40 ohms across the 25 volt line, or less than 320 ohms across the 70 volt line will cause the circuit breaker to trip.

A slide switch is provided to select the proper input impedance for the microphone. The High Z position will match either crystal or dynamic high impedance microphones. The Low Z position will match microphones in the 150 to 500 ohm impedance range.

When it is desirable to suppress the music channel while paging, connect the microphone precedence circuit as shown in Figure 1.



For normal FM reception a short wire attached to the antenna terminal is sufficient for most locations. In the event that the unit is located in a remote area an external Dipole antenna will increase the efficiency and a number of distant stations can then be received. This external antenna is to be connected across the terminals marked ANT.

The External Amplifier (EXT. AMP.) jack is to be used when it is desired to connect to an external amplifier for greater power. It can also be used to feed the signal from the Tuner to a tape recorder which has a built-in pre-amplifier. Both the external and internal amplifiers will operate simultaneously when the external unit is plugged in the EXT. AMP. jack.

The Multiplex jack can be used for connecting to a Multiplex Converter to receive simultaneous signals on both FM and Multiplex broadcast, and for Multiplex Stereo Reception.

The crystal phono input jack enables the amplifier in the unit to be used for playing of records, using a crystal or ceramic cartridge.

OPERATION:

The front panel has five knobs and two slide switches. The functions of the knobs are as indicated. The Mic. Volume control knob adjusts the level of sound for paging or public address, and is independent of the Music Volume control knob. The Music Volume control knob is used to adjust the level of the sound of the AM and FM portion or phonograph. The Tone control knob can be turned to the position that is most pleasing to the listener as it affects both the high and low frequency response. The Function knob is used to select the AM band, the FM without AFC, or the FM with AFC. The Tuning knob is to select the desired AM or FM station. The Music switch is used to select tuner or phono. The slide switch at the lower left is to turn the unit on or off.

AFC refers to "Automatic Frequency Control" and is an electronic means of keeping the receiver properly tuned to the FM Broadcasting station. Even if the FM Tuner Pointer is not in the exact center of the channel, the AFC will automatically pull in the station to the proper point. However, in tuning a weak station adjacent to a strong one, even if the AFC is in an operating position, it may lock on the stronger signal. It is for this reason that a selector switch has been provided for disabling the AFC.

For normal operation on FM, the Function knob should be turned to the AFC position. For very precise tuning, or for tuning a weak station next to a powerful station on FM, it is suggested that the knob be set in the FM position until the station is received the loudest. The knob is then to be turned to the AFC position and the station will be properly tuned and locked in position.

For AM reception, Model 861 has a built-in Hi-Q Ferrite loopstick antenna which is all that is normally required for local AM reception. To increase the reception of weak AM stations in the fringe area, it may be advisable to rotate the loopstick to obtain the loudest signal. Where greater sensitivity is required, connect an external antenna to the metal lug on the hinged end of the loopstick.

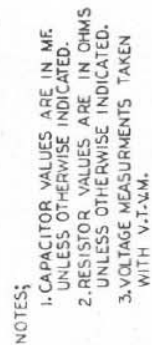
The center marking on the dial glass is a LOG scale for easy recording of the position of the pointer for any specific station.

CAUTION:

This Receiver is equipped with a circuit breaker, designed to protect the transistors against overload. Do not attempt to defeat the function of this breaker. In the event that the circuit breaker constantly "kicks out", check the load on the output of the amplifier. Attempting to operate the amplifier into a short circuit or an impedance lower than recommended will draw too much current through the transistors, causing the circuit breaker to "kick out".

TRUTONE ELECTRONICS, INC.

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AM-FM RECEIVER, 15W. OUTPUT W/PAGE

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