# MODEL 471 SCA BACKGROUND MUSIC ADAPTOR

Model 471 is a solid state adaptor designed for use with an FM tuner or receiver to decode the multiplex subcarrier program on FM stations that provide this service. It has a self-contained noise squelch that operates automatically when the subcarrier is turned off at the station between musical selections. A Fine Tuning control is provided on the front panel to tune the subcarrier accurately. Also located on the front panel are a Noise Squelch on-off switch and a Power on-off switch.

THE USE OF THIS ADAPTOR FOR PUBLIC ENTERTAINMENT OR OTHER COMMERCIAL PURPOSES IS EXPRESSLY FORBIDDEN BY THE FEDERAL COMMUNICATIONS COMMISSION, EXCEPT WITH AUTHORIZATION OR PERMISSION OF THE RESPECTIVE BROADCASTING STATIONS.

## 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 included in the carton the following:

1. INSTRUCTION BOOKLET

2. WARRANTY CARD

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 tested at the factory. It is warranted to be free from defects in material and workmanship under normal use and service for a period of 90 days from date of delivery to the original purchaser. If any unit appears to be defective, the factory will repair any unit returned within said 90 days, 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

It is imperative that Model 471 SCA Adaptor be placed alongside the tuner or receiver and not on top of it as undue heat will affect the stable operation of the circuitry. It is highly desirable that it be placed in an area of adequate ventilation.

If the multiplex signal is weak, has excessive noise, or experiences crosstalk from the primary program, it is recommended that an outside antenna be used with the tuner or receiver.

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

# TRUTONE ELECTRONICS, INC.

### CONNECTIONS

Two shielded cables supplied with the unit are used to connect the adaptor to both the FM tuner and the amplifier. One end of one shielded cable is to be plugged into the "Multiplex" jack on the FM tuner, and the other end into the "Input" jack of Model 471 Adaptor. One end of the second cable is to be plugged into the "Output" jack of the Adaptor, and the other end of this cable into the "Auxiliary" or "Ceramic Phono" input jack of the amplifier. If a "Multiplex" jack is not provided in the tuner, it will be necessary for a serviceman to connect the input cable internally. This is connected in the circuitry at a point before the de-emphasis network. The second shielded cable is connected between the adaptor and amplifier as specified above.

### OPERATION

To turn on the Adaptor, set the "Power On-Off" slide switch to the "on" position, at which time the indicator light will glow.

Not all FM stations broadcast a subcarrier program. To find those that do, tune the tuner carefully until a subcarrier program is heard. Then switch to the main carrier program of the same station, and with the AFC in the "off" position tune until best results are obtained. Switch back to the subcarrier program and adjust the "Fine Tuning" control of the Adaptor until the reproduction sounds best. Return the AFC control on the tuner to the "on" position. The subcarrier program will now be properly heard.

The Noise Squelch circuitry in the Adaptor automatically eliminates any background noise during the interval of silence between musical selections. When the "Squelch On-Off" switch is in the "on" position, no sound will be heard unless the music is playing. When the music stops, the sound is dead. Except when tuning from one subcarrier to another, it is always preferable to leave this switch in the "on" position.

#### SERVICE ADJUSTMENTS

Model 471 has been correctly aligned at the factory to operate at a subcarrier frequency of 67 kc. However, in the event that a subcarrier other than 67 kc (between 20 kc and 75 kc) is desired, adjust the oscillator coil in the Adaptor with a hex alignment tool until the program is heard.