

# EICO

*manual of operation*

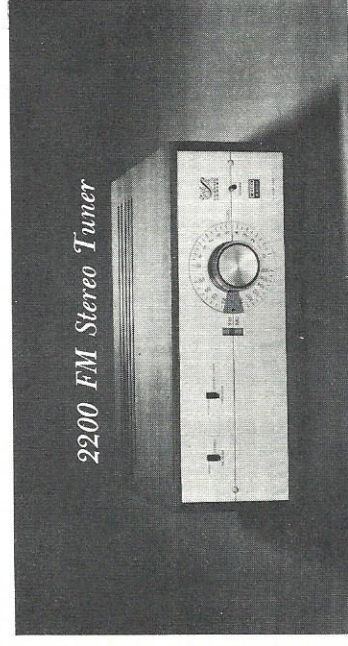


*Classic Series*



**EICO** Electronic Instrument Co., Inc./3300 Northern Blvd., Long Island City 1, N. Y.

*You have just bought one of the world's finest stereo high fidelity components. It has been designed and built to the highest standards, using only the finest parts, all subject to the most rigorous quality control system in the industry. We know that this Eico Classic Series component will give you superb performance for many years to come. We sincerely hope that your enjoyment in this product will encourage you to consider Eico when you are ready to add to your equipment.*





## *General Information*

### Introduction.

Your EICO instrument is of genuine high fidelity quality, designed to give the utmost in performance with the greatest operating simplicity. Please read these instructions through before installing and connecting it.

### Unpacking.

(NOTE: The carton contains mounting hardware.)

This equipment has been thoroughly tested and inspected before packing. If you find visible damage upon unpacking, notify the dealer at once. If the unit was shipped, you must file a claim with the carrier, since only you can recover for shipping damages. Your dealer and EICO will cooperate.

### Warranty Policy.

Please read the EICO WARRANTY, and note that the registration card accompanying each unit should be filled in and returned to the company within 10 days of the date of purchase. The warranty applies only if we have your registration card on file.

## *Installation Procedures*

### Ventilation.

Your tuner is designed for self-ventilation provided that there is space around it for air to circulate freely. Note that there are holes in the bottom plate to admit cool air and holes in the chassis through which air can exit. Additional circulation will occur with cool air drawn in from the rear and the sides also replacing the upward-moving warm air around the tubes and transformers. Observe these rules for proper

ventilation when installing the unit; otherwise shortened component life and poor performance will result.

1. The location must not be near a heat vent or radiator which would cause an abnormally high surrounding air temperature.
2. Any shelf or obstruction above the unit must be spaced away at least 5 inches above the tubes. Do not place books or magazines on top of or close by the unit.
3. As a rule, do not remove the plastic feet from the bottom plate, even when mounting to a cabinet shelf. The feet space the bottom plate away from the supporting surface and ensure that cool air will enter the bottom plate perforations. If you wish to remove the feet, then a cut-out must be made in the supporting shelf to expose entirely the bottom plate perforations.
4. If the unit is installed in a cabinet, leave the back essentially open, if possible. If the back is closed, you must provide several ventilating holes at the bottom and the top of the cabinet back panel for air circulation.
5. If the unit is placed in a book-case, it should preferably be open at the rear. If not, leave some room at the rear both for circulation and convenience in connecting. It is desirable to leave some room on either side of the unit as well.
6. For best performance in a console installation where components are mounted one above the other, mount the tuner below any integrated amplifier.

### Placement.

The tuner can be placed on an along-the-wall table of a sturdy type, on a desk, in a book-case or room divider; or, it can be easily mounted in an equipment cabinet, using the template and instructions supplied. In any case, the ventila-



ting requirements must be observed. Many people prefer to place the tuner where it is conveniently operated from a favorite chair. The tuner is designed for horizontal placement or mounting only.

#### Accessory Walnut Wood Case or Metal Cover.

A superbly crafted and finished walnut wood case is available as an accessory from your dealer. Also available is a perforated metal (dark brown) at lower cost.

### *Connections*

#### Line Cord

Plug the line cord into a 117 VAC, 60 cycle outlet only. Line voltage may vary from 105 to 130 VAC.

#### Antenna.

On the rear of the tuner you will find a pair of terminals designated FM ANT. -300 OHMS. The usable sensitivity of the tuner is such that within the normal service areas of a station, an indoor antenna will suffice for good reception.

One useful type of indoor antenna is the familiar TV "rabbit ears", which can be turned and positioned for best reception on each station (maximum contraction of tuning indicator shadow area). Another inexpensive indoor antenna to consider is the RCA "Brite-Site", a conical TV-FM antenna printed on a 52" x 12" flexible sheet that is concealed under a rug or sofa, or (preferably) may be placed up in an attic. A 10 foot twin lead is supplied. A very inexpensive and easily concealed indoor antenna available at your dealer is a folded dipole in a T-shape formed of flexible 300 ohm twin lead. This type is tacked up on a shelf or wall behind the tuner

with the arms spread horizontally forming a "T". (Place the tacks along the center line of the twin lead and make sure the tack heads do not cut into the insulation and short out the conductors). The stem of the "T" is the lead-in, usually about 6 feet long, and tipped with spade lugs for connection to the antenna terminals.

If a TV antenna is available of a type intended for FM reception as well, and the TV and FM stations are in the same general direction, it may be connected to both the TV set and the FM tuner by means of an inexpensive 2-set coupler. Obtain a 2-set coupler at your dealer, preferably a type specifically designed for coupling a TV and FM set to the same antenna. The TV down-lead at the TV set is reconnected to the input pair of terminals of the coupler, and 300 ohm twin-lead is used to connect the TV set and FM tuner each to one pair of output terminals of the coupler.

It may be that extreme distance from the stations (or a most difficult location) requires that you use an outdoor antenna, but that there is (a) no TV antenna installation available; or (b) that the TV antenna is not designed for FM reception; or (c) that the orientation for TV is not suitable for FM. If (a), roof-mount a 6 or 10 element FM-Yagi antenna. If (b), and a single integrated TV-FM antenna is desired) replace the existing antenna with a combination TV-FM antenna (e.g. Finney Combine No. 2 or 3 with separate TV & FM down leads, or JFD Log Periodic V-11 with a single down-lead). If (b) or (c), mount an additional FM Yagi antenna on the existing mast if the mast and moorings are strong enough (the smaller 4-element FM Yagi may be considered). In all cases, twist the down-lead 4 to 5 times per foot and use an appropriate lightning arrester for each down-lead. Where the desired stations are not all in the same general direction, and especially if they are in diametrically opposite directions, the best solution for perfect reception of all stations is an antenna rotator. Another solution to multi-direction reception that is less comprehensive, but that may appear more suitable to some, is the use of two FM Yagi antennas on the same mast, each oriented to favor a particular group of stations. The



two down leads are brought to an indoor two-antenna switching box (e.g. the JFD AS-2) which is located at the FM tuner for convenient antenna selection when a station is tuned in.

Output.

A pair of shielded audio cables up to 10 ft. long, both with a phono pin plug at each end, should be used to connect from the CH 1 and CH 2 OUTPUT jacks at the rear to the inputs of a stereo integrated amplifier, stereo preamplifier, or any system with which the tuner is being used. The CH 1 jack is connected to the input which may be marked CH 1, A, or Left, and the CH 2 jack to the input which may be marked CH 2, B, or Right.

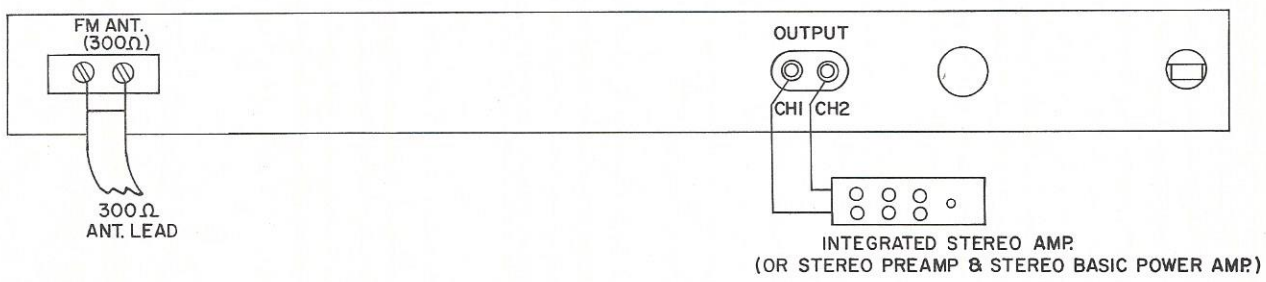
A-C Line Cord.

When the amplifier or device with which the tuner is used has a switched convenience outlet, it usually is convenient to plug the tuner line cord into the outlet so that the tuner will be turned off with the amplifier. The tuner line cord should be inserted in the position which gives least hum when the tuner input is selected on the amplifier.

*Operation*

The POWER push-button is pressed in to turn the tuner on, and pressed in again to turn it off (tuning dial illumination is the pilot).

The STEREO position of the FM MODE switch must be used for stereo listening to stereo broadcasts, but may also be used for casual listening to mono broadcasts unless the station provides a background music service (on a non-standard sub-carrier frequency) which can cause a squealing type of interference. In the latter case, setting the FM MODE switch to MONO will eliminate the interference. The MONO position should always be used, also, when recording monophonically, or for critical listening to a mono broadcast. In





## Service Notes

rare cases, a very weakly received stereo broadcast from a distant station will have no separation and poor signal-to-noise ratio at the STEREO position. In such a case, monophonic listening at the MONO position is superior. Remember that all FM stereo broadcasts may be listened to monophonically by setting the FM MODE switch to MONO instead of STEREO.

On FM tuning, the tuned frequency in megacycles is read on the left side of the tuning dial (88-108) where the arrow in the tuning illumination window appears. A station is tuned in exactly by adjusting the vernier tuning knob for the smallest gap between the upper and lower bars of the tuning indicator. The logging scale on the right side of the tuning dial (0-10), read where it is intersected by the panel center line, can be useful for quick re-setting to one of several closely spaced stations.

The INDICATOR switch is a spring-return type normally at the TUNING (dot) position. At this position the electron-ray tube serves as a tuning indicator used as described above. When it is desired to immediately determine whether a stereo program is in progress on a particular station after the station is tuned in, the INDICATOR switch is depressed momentarily to the STEREO CHECK position while observing the electron-ray tube. If a stereo program is in progress, the gap between the upper and lower bars of the electron-ray tube will disappear and the bars will even overlap slightly to form an extra-bright center line. If the program in progress is monophonic, there will be a wide gap between the bars. (Note that the audio is cut-off when the indicator switch is at STEREO CHECK.) As soon as the determination is made, the INDICATOR switch is released to return to the normal TUNING position. It is not recommended to hold down the INDICATOR switch at STEREO CHECK while turning the tuning knob to search for a stereo broadcast, because inter-station noise can cause spurious indications.

### Fuse.

The 2A fuse on the rear is there to protect the unit against damage. Do not replace it with a fuse of any other type.

### Tubes

This unit does not depend upon special tube selection for proper operation. Any tube may be replaced without necessitating re-alignment or re-adjustment provided the replacement is a type specified for the particular socket. All tube types used are available nationally, but may be obtained directly from EICO as well.

### Maintenance Manual.

A MAINTENANCE MANUAL exists for this unit. Re-alignment must be performed only according to the procedures given in the MAINTENANCE MANUAL. It may be obtained by sending \$1.00 with your order to our Service Department.

### Factory Repair Service: Policy For Factory-Wired Equipment.

EICO maintains a Factory Repair Service Department for in-warranty or out-of-warranty repair of EICO equipment.

For EICO Factory Service of an out-of-warranty unit of this particular model, there is a minimum labor and handling fee of \$10.00. Please note that this minimum fee may, in time, be revised.



For in-warranty factory-wired units, there is no labor and handling fee or charge for components if the unit complies with the terms and conditions of the warranty in the judgment of EICO. However, if the terms and conditions of the warranty are violated, then there will be charges to the customer as for any out-of-warranty unit.

In all cases, the unit must be sent to the factory transportation prepaid and will be returned to the customer transportation collect.

#### Local Authorized Service Stations.

Out-of-warranty repair work may also be performed by authorized service stations as well as the EICO factory. A list of authorized service stations is provided with this manual. The roster of stations may change from time to time, and if considerable time has elapsed since you purchased your unit, you are advised to contact the station you choose before sending the unit to them for repair. Use of a local service station will often result in faster service, and, usually, lower transportation costs.

It is necessary that you comply with the Shipping Instructions that follow when sending in a unit for service.

#### Shipping Instructions.

You are strongly advised to retain the original shipping carton and inserts in the case that re-shipment is required for service or any other purpose. The carton may be collapsed, for storage in as small a space as possible.

To submit a unit for service, either to the factory or an authorized service station, \* fill out completely the Service Work Order form provided with the manual. Pack the unit very carefully, preferably in the original shipping carton with the original inserts.

If this is not possible, use a strong oversize carton, preferably wood, allowing at least 3 inches of resilient packing material such as shredded paper or excelsior, to be inserted between all sides of the unit and the carton. Seal the carton with strong gummed paper tape or strong twine, or both. Include the Service Work Order in the carton and in addition, attach a tag to the instrument on which is printed your name and address and brief reference to the trouble experienced. Affix "FRAGILE" or "HANDLE WITH CARE" labels to at least four sides of the carton or print these words large and clear with a bright color crayon. Ship by prepaid Railway Express or Parcel Post to:

EICO Electronic Instrument Co., Inc.  
33-00 Northern Blvd.  
Long Island City 1, New York  
Attention: Service Department

Include your name and address on the outside of the carton. Return shipment will be made transportation charges collect. Note that a carrier cannot be held liable for damages in transit, if packing, IN HIS OPINION, is insufficient.

\*Authorized service stations are for out-of-warranty units only, unless the station is specifically noted on the List of Authorized Service Stations to be authorized for other work.

## The Warranty

The EICO Electronic Instrument Company, Inc., hereafter referred to as EICO, warrants that, for a period of 90 days from the date of purchase, any EICO kit will be free of defects in parts, and that any EICO factory-wired unit will be free of defects in parts and workmanship. For an EICO kit, EICO's obligation is limited to those parts which are returned transportation prepaid to the factory without further damage, and in the judgement of EICO are either originally defective or have become defective in normal use. For an EICO factory-wired unit, EICO's obligation is limited to those parts, sections, or the entire unit which is returned transportation prepaid to the factory without further damage, and in the judgement of EICO are either originally defective or have become defective in normal use.

The warranty does not apply to any parts damaged in the course of handling, assembling, or wiring by the customer, or damaged due to abnormal usage or in violation of instructions or reasonable practice, or further damaged to a consequential degree in return shipment. Furthermore, the foregoing warranty is made only to the original customer, and it shall be in lieu of all other warranties, whether expressed or implied, and of all other obligations or liabilities on the part of EICO, and in no event shall EICO be liable for any anticipated profits, consequential damages, loss of time, or other losses incurred by the customer in connection with the purchase or operation of EICO products or components thereof.

The registration card, which accompanies each EICO kit or factory-wired unit, must be filled in and returned to the company within 10 days after the date of purchase. This warranty applies only to registered units.