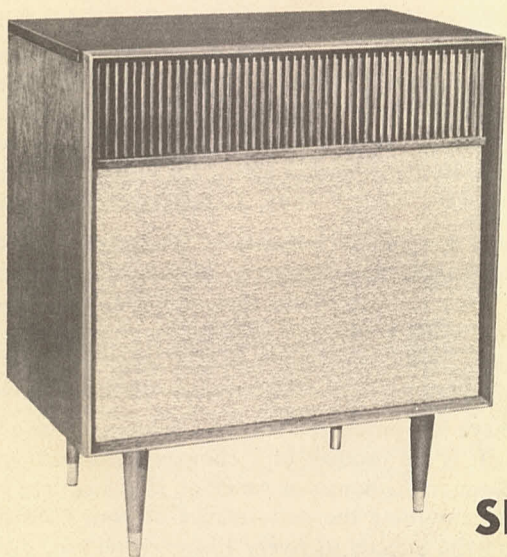


# OPERATING INSTRUCTIONS



## RECORD CHANGER CAUTION

The Record Changer furnished with this equipment has been designed to play up to ten records continuously. However, stacking this changer to its full capacity may exceed the allowable stylus pressure, which is extremely critical when stereo cartridges are used. The pickup arm has been adjusted at the factory for optimum stylus pressure with a maximum of five records. It is recommended that not more than this number be stacked on the changer for the best sound reproduction.

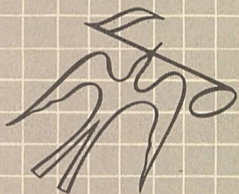
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## SERIES 610

HIGH FIDELITY RADIO-PHONOGRAPH

# THE FISHER

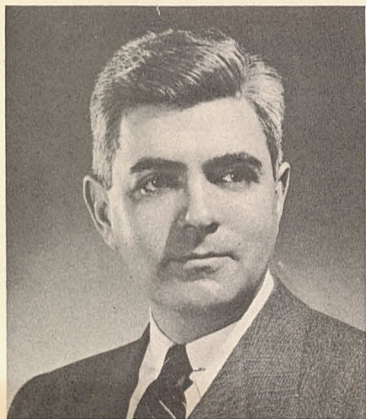


## STEREOPHONIC

(c) [www.fisherconsoles.com](http://www.fisherconsoles.com)

PRICE \$1.00





**AVERY FISHER**  
Founder and President,  
Fisher Radio Corporation

## The Man Behind the Product

**O**VER 20 YEARS AGO, Avery Fisher introduced America's first high fidelity radio-phonograph. That instrument attained instant recognition as heralding a new era in the enjoyment of reproduced music. A number of the features of that early high fidelity radio-phonograph were so basic that they are used to this day in all high fidelity equipment. The engineering achievements of Avery Fisher and the world-wide reputation of his products have been the subject of articles in *Fortune*, *Time*, *Pageant*, *The New York Times*, *Coronet*, *Life*, *High Fidelity*, *Esquire*, and other publications.

Benefit concerts for the National Symphony Orchestra in Washington and the Philadelphia Orchestra, demonstrating the great advances in reproducing equipment, used FISHER instruments to play back the recordings that had just been made in the presence of the audience. "Fascinating evening, acoustically and musically," was the *Philadelphia Inquirer's* comment, "the reproduction had remarkable fidelity." *TIME* magazine stated, "Listeners could hardly tell the difference between real and electronic."

The FISHER instrument you have just purchased has been designed to give you many years of pride and enjoyment. It is the product of a company dedicated to bringing reproduced music in its finest form, to the homes of America. If at any time you should desire information or assistance regarding the performance of your FISHER instrument, please do not hesitate to write directly to Avery Fisher, President, Fisher Radio Corporation, Long Island City 1, New York. Your communications will be welcome.

### FISHER 'FIRSTS' – Milestones In Audio History ...

- 1937 First high fidelity sound systems featuring a beam-power amplifier, inverse feedback, acoustic speaker compartments (infinite baffle and bass reflex) and magnetic cartridges.
- 1937 First exclusively high fidelity TRF tuner, featuring broad-tuning 20,000 cycle fidelity.
- 1937 First two-unit high fidelity system with separate speaker enclosure.
- 1938 First coaxial speaker system.
- 1938 First high fidelity tuner with amplified AVC.
- 1939 First Dynamic Range Expander.
- 1939 First 3-Way Speaker in a high fidelity system.
- 1939 First Center-of-Channel Tuning Indicator.
- 1945 First Preamplifier-Equalizer with selective phonograph equalization.
- 1948 First Dynamic Range Expander with feedback.
- 1949 First FM-AM Tuner with variable AFC.
- 1952 First 50-Watt, all-triode amplifier.
- 1952 First self-powered Master Audio Control.
- 1953 First self-powered, electronic sharp-cut-off filter system for high fidelity use.
- 1953 First Universal Horn-Type Speaker Enclosure for any room location and any speaker.
- 1953 First FM-AM Receiver with a Cascode Front End.
- 1954 First low-cost electronic Mixer-Fader.
- 1954 First moderately-priced, professional FM Tuner with TWO meters.
- 1955 First Peak Power Indicator in high fidelity.
- 1955 First Master Audio Control Chassis with five-position mixing facilities.
- 1955 First correctly equalized, direct tape-head master audio controls and self-powered preamplifier.
- 1956 First to incorporate Power Monitor in a home amplifier.
- 1956 First All-Transistorized Preamplifier-Equalizer.
- 1956 First dual dynamic limiters in an FM tuner for home use.
- 1956 First Performance Monitor in a high quality amplifier for home use.
- 1956 First FM-AM Tuner with TWO meters.
- 1956 First complete graphic response curve indicator for bass and treble.
- 1957 First Gold Cascode FM Tuner.
- 1957 First MicroRay Tuning Indicator.
- 1958 First Stereophonic Radio-Phonograph with Magnetic Stereo Cartridge

# THE FISHER Series 610

## HIGH FIDELITY

### Radio-Phonograph

THE FISHER is a superb high fidelity instrument housed in an unusually attractive furniture cabinet. It has been designed for stereophonic reproduction in conjunction with THE FISHER *Stereo Companion*, in addition to its independent use as a complete monaural high fidelity radio-phonograph. Simple plug-in receptacles are provided for the *Stereo Companion* and a variety of stereo and monaural program sources.

THE FISHER Amplifier and Speaker System are capable of providing more than ample volume for all your needs without a trace of distortion, and the easy-to-use Stereo Control Center permits the sound to be adjusted to your personal tastes. THE FISHER FM-AM Tuner is renowned for its extreme sensitivity, assuring you of high-fidelity reception even in extreme fringe areas. Your phonograph records, stereophonic and monaural, are safely and effectively reproduced on the world-famous Garrard four-speed automatic record player. To the Garrard, FISHER has added a stereophonic cartridge equipped with a *diamond* LP stylus for long record life and minimum record wear, with a flip-over stylus for playing 78 r.p.m. discs. This cartridge is of the compatible type, which means that it will play either stereo or monaural recordings.

The ease with which you can utilize the many wonderful features of THE FISHER will be readily apparent when you have read the concise, yet complete, instructions on the pages that follow.

### STEREOPHONIC SOUND

In monaural high fidelity systems, the reproduced sound has all the characteristics of the original performance — with two exceptions. These are *direction* and *distance*. With the advent of stereophonic high fidelity systems, *all* the characteristics of live sound are now capable of being reproduced in the home or auditorium. THE FISHER, in conjunction with the *Stereo Companion*, constitutes a complete stereophonic system.

Reproduction of the live sound characteristics of direction and distance are made possible by the use of *two* sound sources and *two* sound channels. For example, two microphones are placed before an orchestra so that they "hear" the music as we would, with both ears. What is picked up by each microphone is then recorded separately and independently on record or tape, or broadcast as a stereo radio program. The stereo program is then reproduced through two separate sound channels. The sound originally picked up by the microphone on the right is used to drive a speaker system on your right, while the sound picked up by the microphone on the left simultaneously drives a speaker system placed on your left.

The effectiveness of stereophonic sound in achieving realism is much greater than might be imagined on the basis of the simple explanation just given. The stereo system actually spreads out the orchestral sound in the same manner as it would emanate from the stage. In other words, instruments located at center stage are heard at a point midway between the speakers. The other orchestral instruments can be located accordingly from left to right. This results in a realism and clarity never before possible in high fidelity systems.

The following stereophonic program sources are already in use, or will be available in the very near future: FM-AM and FM-FM radio broadcasts; commercial and home tape recordings; commercial disc recordings. THE FISHER is equipped to handle all these sources, in addition to all standard monaural programs.

### INSTALLATION

THE FISHER operates on *AC only*. The AC Power Cord at the back of the instrument must be connected to a line receptacle supplying 105 to 125 volts at 60 cycles. A step-up transformer can be used where the line voltage is lower, a step-down transformer where it is higher. THE FISHER can be modified for 50-cycle operation by means of



an adaptor for the record changer, for which consult your FISHER Dealer. Total power consumption is 145 watts. A 2-ampere Slo-Blo type fuse is used to safeguard the instrument. *Never insert a fuse of rating higher than specified, or severe damage may result.*

## Record Changer

Be sure that the shipping screws designated by red and white tags have been removed. This is normally done when the instrument is delivered and set up. Be sure that the protective cover on the underside of the phonograph cartridge has been removed, exposing the stylus. If it has not, hold the pick-up arm firmly and remove the cover guard with a fingernail.

The Record Changer should ride on its shock mounts. This can be verified by depressing each side of the Record Changer. Consult your FISHER Dealer if the changer does not move downward under hand pressure.

## Stereo Companion

THE FISHER has been designed for simple plug-in connection of the *Stereo Companion*. A twelve-foot shielded cable is supplied with it. The shielded cable is plugged into the AMPL B Output Jack on THE FISHER Radio-Phonograph rear panel, and the other end plugged into the INPUT Jack on the *Stereo Companion*. The AC cord from the *Stereo Companion* is plugged into the Auxiliary AC Receptacle on the Radio-Phonograph. These two connections complete the stereo installation.

In positioning the Radio-Phonograph and the *Stereo Companion* for best stereo listening, certain precautions should be observed. Placing the units in the room corners may introduce undesirable acoustic effects. Instead, try placing them against the same wall, but a short distance from the room corners. Allow for a minimum separation of about five feet between the units. As a rule-of-thumb, the distance from the speaker wall to the listening area should be about twice the distance between the units. If your installation is to be set up in a long narrow room, placing the units against the long wall may be preferable to arranging them against the short wall of the room.

## Input Connections

Three input jacks are provided on the rear panel of THE FISHER Radio-Phonograph for the connection of additional stereo or monaural program sources. For stereophonic radio reception, a tuner may be connected to the *Channel B* Tuner Input Jack. For FM-AM reception, an AM tuner is connected, which then operates in conjunction with the FM tuner in the instrument. For FM-FM broadcasts, an FM tuner is connected.

The AUX Input Jacks can be used for additional program sources, such as stereo tape recorder playback, when the installation includes the *Stereo Companion*. In monaural use, with or without the *Stereo Companion*, the playback output of a monaural tape recorder, the sound portion of a TV program, a shortwave tuner, or other high-level program source can be connected to the AUX A Input Jack.

## Sound From Speakers

When using THE FISHER Radio-Phonograph in conjunction with the *Stereo Companion*, sound is heard from both units whether the system is being operated monaurally or stereophonically. After you have your stereo installation completed, try reversing the A and B inputs to determine which arrangement provides the best stereo sound. Convenient terminals are also provided on the back of the Radio-Phonograph speaker enclosure for connecting a remote speaker system. Wiring directions are provided on the terminal strip.

## Antenna Installation

THE FISHER is equipped with built-in antennas both for FM and AM. The FM Antenna is a 300-ohm folded dipole. The AM Antenna is a special Ferrite Loopstick.

These antennas are more than adequate except in extreme fringe areas or where special local conditions affect reception. There is also provision for installation of external antennas on both FM and AM. Consult your FISHER Dealer for full details.

## THE CONTROL PANEL

There are five knobs on the control panel, each carefully marked for simple use. Since the *Stereo Companion* has no controls of its own, the following paragraphs apply whether you are using the Radio-Phonograph by itself, or in a stereo installation.

### AC Power On-Off

This switch is part of the Volume Control. The OFF position is at the extreme counter-clockwise point of rotation of the knob. Turning the knob clockwise from this position results in a click from the control and the lighting of the dial glass lamps, signifying that AC power has been turned on. It also indicates that AC power is being supplied to the *Stereo Companion*, if this unit is part of the installation. If you have been using the Record Changer, be sure the arm is at rest before turning off THE FISHER.

### Channel Selector

The six-position Channel Selector is used to select the type of operation, stereo or monaural, and the program source.

**AM-MONAUURAL:** Use this position for listening to standard AM radio programs. As indicated by the dot, this position is for monaural broadcasts.

**FM-MONAUURAL:** This position is used to listen to standard monaural FM broadcasts, as received by the FM tuner in the Radio-Phonograph.

**RADIO-STEREO:** Turn to this position for stereo broadcasts. What you will hear is the FM tuner in the Radio-Phonograph on *Channel A*, and the tuner source you have connected to the *Channel B* Tuner Input Jack on the rear panel. This selector position is for use when you have completed your stereophonic installation with the *Stereo Companion*.

**PHONO-MONAUURAL:** For playing monaural disc recordings, switch to this selector position. When using the *Stereo Companion*, the PHONO-MONAUURAL position permits a standard monaural disc to be heard through both speaker systems.

**PHONO-STEREO:** This is the position to use for playing stereo disc recordings. No adjustment of the record changer is needed.

**AUX-STEREO:** Use this position for listening to the stereo program source you have connected to the Aux Input Jacks on the rear panel, such as stereo tape recorder playback. This position can also be used for a monaural program source connected to the *Channel A* Input Jack, if you do not have a *Stereo Companion*.

### Station Selector

This control is used for tuning to either FM or AM stations. Turning the knob moves the pointer across the scale. Tune to FM stations on the 88-108 Megacycle band, and tune to AM stations on the 550-1600 Kilocycle band. Use the 0-100 Logging Scale for convenient two-digit location of stations.

### Audio Controls

The audio controls described below are all of the dual-channel type. This is the reason why the *Stereo Companion* can be used to complete your stereo installation without the necessity of adding additional controls. In the monaural installation, they operate to



control the sound characteristics of the Radio-Phonograph. In the stereo installation, they control the sound characteristics of both the Radio-Phonograph and the *Stereo Companion* at the same time, the Volume Control serving as the master volume control of the entire system. Control operation as described below, therefore, applies to either monaural or stereophonic operation.

**VOLUME CONTROL:** Speaker volume is controlled by the center knob on the control panel. Turning the knob clockwise results in an increasing volume from the speakers.

**BASS TONE:** When the gold marker on this knob points straight up, the bass tones are reproduced just as they come from the program source. This is the flat, or uniform response, setting. Bass tone intensity can be reduced by turning the control toward the MIN position on the left, while turning it toward the MAX position on the right increases it. At high volume, it is best not to use extreme clockwise settings of this control, since distortion of sound may occur.

**TREBLE TONE:** When the gold marker on this knob is pointing straight up, the treble tones are unaffected by THE FISHER. For a more intimate tonal quality, turn the control to the left (toward MIN) to the desired degree. For a more brilliant tone, turn the knob toward the MAX position on the right.

## CHASSIS ADJUSTMENTS

In addition to features described in the earlier section on installation, there are other facilities available on the chassis. Two separate adjustments are provided for the purpose of suppressing hum. The chassis is also provided with an amplifier (*Channel A*) level adjustment on the rear panel.

**HUM ADJUST 1:** With no program being played, turn the Volume Control to minimum. Turn the Channel A Level Set on the rear panel to maximum (clockwise). If you have the *Stereo Companion*, turn its Input Level Adjustment to maximum (clockwise). Using a small, slot-head screwdriver, rotate Hum Adjust 1 for minimum hum from the speakers.

**HUM ADJUST 2:** After setting Hum Adjust 1, turn the Volume Control to maximum. Using a small slot-head screwdriver, set Hum Adjust 2 for minimum hum from the speakers.

**CHANNEL A LEVEL SET:** This adjustment should be left at maximum (clockwise) if the Radio-Phonograph is used alone. When installed with the *Stereo Companion*, the Channel A Level Set provides a way to obtain an equal volume of sound from both speakers. Set both the Radio-Phonograph Channel A Level Set and the *Stereo Companion* Input Level Adjustment to maximum. Reduce one or the other, as necessary, to obtain the proper volume balance.

### At Your Service

It is the constant desire of Fisher Radio Corporation to have your FISHER give you its best possible performance. Toward that objective, we solicit your correspondence on any special problems that may arise. After you have had an opportunity to familiarize yourself with THE FISHER, we would appreciate your letting us know how it is meeting your requirements.

### Your FISHER Dealer

Be sure to consult your FISHER Dealer *promptly* if any situation arises that indicates a possible defect. Your FISHER Dealer stands ready to assist you at any time.

**a final word . . .**

Have this booklet handy while you get acquainted with your new FISHER , then keep it in a safe place as a valuable reference to which you can turn.

If any question arises to which you cannot find the answer, please do not hesitate to write us. We'll be glad to hear from you, and a prompt reply will follow.

*Avery Fisher*

AVERY FISHER,  
PRESIDENT





FISHER RADIO CORPORATION • 21-21 44th DRIVE • LONG ISLAND CITY 1, N. Y.



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