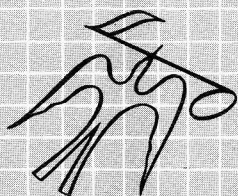


# OPERATING INSTRUCTIONS



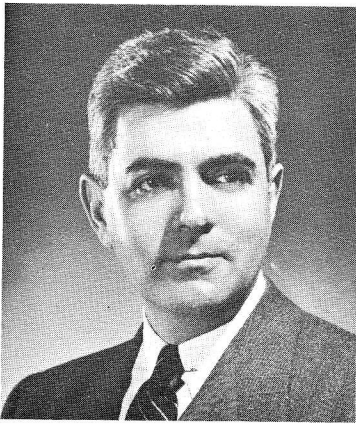
**SERIES 510**  
**HIGH FIDELITY PHONOGRAPH**

# THE FISHER



**STEREOPHONIC**

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 Cascade 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 Cascade FM Tuner.
- 1957 First MicroRay Tuning Indicator.
- 1958 First Stereophonic Radio-Phonograph with Magnetic Stereo Cartridge

**THE FISHER**  
*Stereophonic*  
**Series "510"**

THE FISHER 510 is a superb high fidelity instrument housed in an unusually attractive furniture cabinet. It has been designed specifically for stereophonic reproduction in conjunction with THE FISHER Stereo Companion, in addition to its independent use as a complete monaural high fidelity phonograph. Simple plug-in receptacles are provided for the Stereo Companion and a variety of stereo or monaural program sources.

THE FISHER Amplifier and Speaker System are capable of providing 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. 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. A separate flip-over stylus is also provided for 78 r.p.m. recordings. This cartridge is of the compatible type, which means that it will play either stereo or monaural recordings without requiring any type of adjustment.

The ease with which you can utilize the many wonderful features of the 510 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 performances — 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 510, 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 left is used to drive a speaker system on your left, while the sound picked up by the microphone on the right simultaneously drives a speaker system placed on your right.

The effectiveness of high fidelity 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 a 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, FM-FM, and FM Multiplex 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 only. A step-up transformer can be used where the line voltage is lower, a step-down transformer where it is higher. Total power consumption of the 510 is 110 watts. A 1-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*. Consult the instructions provided with that unit when making the installation.

In positioning the 510 and the *Stereo Companion* for the 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, 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

Two pairs of input jacks are provided on the rear panel of the 510 for the connection of stereo and monaural program sources in addition to the record changer which is a part of THE FISHER.

**TUNER INPUTS:** When the 510 is used with the *Stereo Companion*, stereo tuners can be plugged into the TUNER A and B Input Jacks on the 510. For example, an FM tuner can be connected to TUNER A and an AM tuner to TUNER B. The FM tuner is then in use for monaural broadcasts, and both tuners for FM-AM binaural broadcasts. The connection to the TUNER B Input Jack can also be from a second FM tuner for FM-FM stereo broadcasts, or from a multiplex adaptor for FM Multiplex stereo programs.

If the 510 is to be used without the *Stereo Companion*, simply connect your tuner, FM or AM, to the TUNER A Input Jack.

**AUX INPUTS:** This pair of inputs can be used for 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 510 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, from left to right.

**REMOTE SPEAKER:** Convenient terminals are provided on the back of the 510 speaker enclosure for connecting a remote speaker system. Wiring directions are provided on the terminal strip.

## THE CONTROL PANEL

There are a number of controls on the 510 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 510 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 jeweled pilot lamp in the speaker frame, signifying that AC power has been turned on. It also signifies that AC power is being supplied to the *Stereo Companion*, if installed. If you have been using the Record Changer, turn it off first, allowing the pick-up arm to come to rest.

### Channel Selector

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

**PHONO:** For playing stereo records, switch to the PHONO-STEREO position. For playing monaural records, use the PHONO-MONAUROAL position. No adjustment of the Record Changer is needed for playing monaural or stereo records. Simply set the flip-over stylus for the correct speed. Use LP for 33 and 45 r.p.m. discs. Use 78 for 78 r.p.m. recordings. When using the *Stereo Companion* with the 510, the PHONO-MONAUROAL position permits a monaural record to be heard through both speakers.

**TUNER:** The TUNER-MONAUROAL position selects the program source connected to the TUNER A Input Jack on the 510. In conjunction with the *Stereo Companion*, the TUNER-STEREO position selects the stereo tuners connected to both the TUNER A and TUNER B Input Jacks.

**AUX:** The AUX-MONAUROAL position allows you to utilize the program source connected to the AUX A Input Jack on the 510. In the AUX-STEREO position, you may listen to the stereo source connected to the AUX A and B Inputs Jacks, in connection with the *Stereo Companion*.

### 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 510. In the stereo installation, they control the sound characteristics of both the 510 and the *Stereo Companion* at the same time, the Volume Control serving as the master volume control for the entire system. Control operation as described below, therefore, applies to either monaural or stereo operation.

**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 510. 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.

**VOLUME CONTROL:** Speaker volume is controlled by the knob nearest you on the 510 control panel. Turning the knob clockwise results in an increasing volume of sound from the speakers.

## CHASSIS ADJUSTMENTS

Two separate adjustments are provided on the 510 chassis for the purpose of suppressing hum. For their location, see the Tube Layout Diagram affixed to the rear of the cabinet. The 510 is also provided with an amplifier level adjustment.

**HUM ADJUST 1:** With no program being played, turn the Volume Control to minimum. Turn the Channel A Level Set on the chassis to maximum (clockwise). Using a small slot-head screwdriver, rotate Hum Adjust 1 on the chassis for minimum hum, as heard through the 510 speakers.

**HUM ADJUST 2:** Turn the 510 Volume Control to maximum. The Channel A Level Set remains at maximum. Rotate Hum Adjust 2 on the chassis for minimum hum from the 510, using a small slot-head screwdriver.

**STEREO:** Perform this step only if you are using the *Stereo Companion*. After setting Hum Adjust 1 and 2 as described above, re-set Hum Adjust 1 *slightly* for minimum hum from the *Stereo Companion* speakers, with the 510 Volume Control at maximum.

**CHANNEL A LEVEL SET:** This adjustment should be left at maximum when the 510 is used alone. When used in conjunction 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 510 Channel A Level Set and the *Stereo Companion* Input Level Adjustment to maximum. Reduce one or the other, as necessary, to obtain 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.

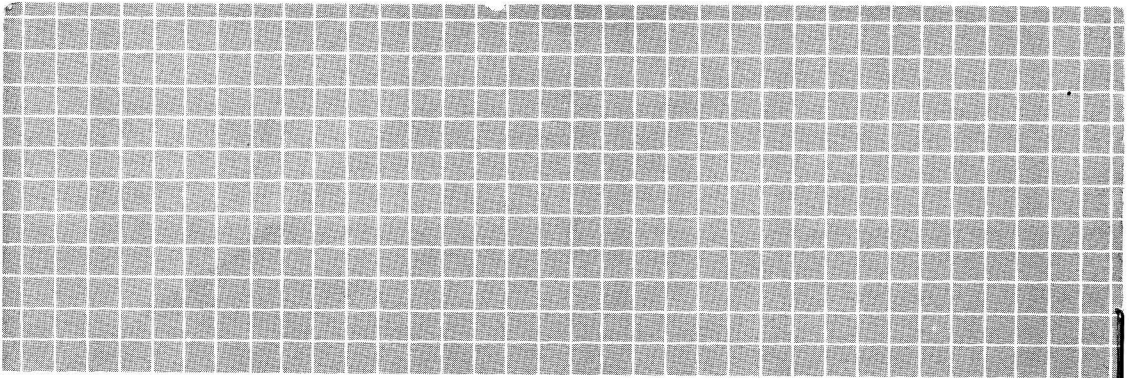
**a final word . . .**

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**



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