OPERATING INSTRUCTIONS

THE AMBASSADOR III
STEREOPHONIC PHONOGRAPH
AND FM-AM RADIO

THE FISHER

STEREOPHONIC

PRICE $1.00
OVER 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, acousticspeaker 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 Ambassador III
HIGH FIDELITY
Stereophonic Phonograph and FM-AM Radio

THE FISHER is a complete stereophonic high fidelity music reproducing system, equipped to play the latest stereo disc recordings, plus a high fidelity FM-AM tuner. The components housed in its fine furniture console enable you to look forward to many years of listening enjoyment. Built into THE FISHER are many exclusive features not to be found elsewhere. And you are assured of that excellence in design, construction, and performance which for over two decades has won for THE FISHER a world reputation in the field of high fidelity.

THE FISHER amplifiers and speaker systems are capable of providing more than ample volume for all your needs without distortion, and the controls permit 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 fringe areas. Your phonograph records, stereo and monaural, are safely and accurately reproduced on the world-famous Garrard four-speed automatic record player. To the Garrard, FISHER has added its new STEREOPLEX magnetic stereo cartridge equipped with a diamond stylus for long record life and minimum record wear. This cartridge can be used, without adjustment, for playing either stereo or monaural LP 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 monophonic 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 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 the speaker system on your right, while the sound picked up by the microphone on the left simultaneously drives the speaker system 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 appear to come from a point midway between the speakers. The other orchestral instruments can be located in the same manner. 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 with input channels to handle all these sources, in addition to all standard monaural programs.

It is well to emphasize that stereo is something added to high fidelity to form a better music reproducing system. Stereo is not a substitute for high fidelity; in fact, a monophonic high fidelity system will actually surpass in performance a stereo system which is below high fidelity standards. For this reason, all the advances which have made THE FISHER a world leader in high fidelity for over two decades, also assure you of the best in stereophonic high fidelity instruments.

INSTALLATION

THE FISHER operates on AC only. The AC power cord at the back of the instru-
ment 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. Never insert a fuse of rating higher than specified on the chassis, or severe damage may result.

Cabinet Leg Assembly (Modern Only)

In the modern cabinet style of the Ambassador III, the four legs are shipped mounted in tee-nuts inside the chassis compartment, at the back of the cabinet. Do not remove the Record Changer shipping screws until the legs have been installed. Remove the legs from the chassis compartment. Carefully place the cabinet on its back. Screw the legs into the four tee-nuts on the cabinet bottom. Hand tighten them until they are firmly in place. Carefully raise the cabinet up on its legs. Place the cabinet no closer than one or two inches from a wall, more if possible, to assure proper ventilation.

Record Changer

THE FISHER is shipped with two screws to hold the Record Changer in place during transit. These screws, to which red-and-white tags are attached, secure the changer against small wood shipping blocks inserted between the changer base plate and the drawer mounting board. Be sure that both the screws and the wood blocks have been removed. This is normally done when the instrument is delivered and installed, and after the legs have been attached to the cabinet. Be sure, also, that the protective cover on the phonograph cartridge has been removed, exposing the stylus. If it has not, hold the pick-up arm firmly with one hand and with the other remove the guard by pulling it down and off.

When the Record Changer has been properly unpacked, it should ride on its shock mounts. This can be checked by depressing each side of the Record Changer, which should spring back. Consult your FISHER Dealer if it does not move downward on each side under hand pressure.

Antenna Installation

THE FISHER Radio-Phonograph is equipped with built-in antennas for both FM and AM use. The FM antenna is a 300-ohm folded dipole. The AM antenna is a rotatable ferrite loopstick.

A four-position antenna terminal strip is provided on the main chassis which is accessible from the rear of the cabinet. THE FISHER is shipped with the FM dipole antenna connected to terminals 1 and 2 (counting from left to right), for use in areas of normal signal strength.

In weak signal areas, an external FM antenna can be used. Disconnect the internal FM dipole from the terminal strip and connect the external antenna to terminals 1 and 2. In strong signal areas, reception may be improved by disconnecting the FM dipole and connecting an external antenna to terminals 1 and 3.

The AM antenna is permanently mounted on the chassis and is accessible from the rear of the cabinet. After THE FISHER has been installed in its permanent location, rotate the AM loopstick a short distance in either direction for the best average reception across the AM band. An external AM antenna, if required, may be connected to terminal 4. The AM loopstick on the chassis is left connected.

Auxiliary Inputs

In addition to the phono input jacks, there are two auxiliary input facilities provided on the rear panel of the main chassis. The input jacks marked AUX 1 are intended for an external sound source such as a tape recorder or TV sound. Connect the output leads of the sound source to jacks A and B. If the external sound source is monophonic, jacks A and B must be jumped for the unit to function properly.

A second pair of input jacks is intended for stereophonic radio reception. This may be done by connecting an external AM or FM tuner, which operates in conjunction with the FM tuner in the set, to provide either FM-AM reception or FM-FM reception. In this case the external tuner is connected to jack B of AUX 2 and the slide switch above it is moved to the right.

THE FISHER radio-phonograph is also equipped to receive FM multiplex stereo broadcasts. To do so, a FISHER multiplex adapter, not furnished with this instrument, is required. Connect the multiplex adapter to jacks A and B of AUX 2 and move the slide switch all the way to the left.
THE CONTROL PANEL

There are five knobs on the control panel and their respective functions are indicated under each knob. The BALANCE-VOLUME control in the center is a dual knob; all the others are single.

AC Power On-Off

Power to the instrument is controlled by a switch which is part of the small knob of the BALANCE-VOLUME control. The OFF position is at the extreme counter-clockwise point of this knob. Turning the knob clockwise from this position produces a click and lights the dial lamps, indicating that the AC power is on.

Function Selector

The SELECTOR switch at the extreme left of the control panel is used to select the type of operation desired (stereo or monophonic) and the program source. There are six positions on the SELECTOR, as follows:

AM: This position is used for listening to standard monophonic AM radio programs as received in the AM tuner of THE FISHER radio-phonograph.

FM: Use this position to receive standard monophonic FM broadcasts as received by the FM tuner in the instrument.

RADIO-STereo: Turn the control to this position for stereo broadcast reception, after making the necessary input connections for the type of stereo radio desired. See Auxiliary Input Connections in the Installation section. If the FM-AM or FM-FM mode of stereo broadcast is used, the output of the FM tuner in THE FISHER radio-phonograph will be developed in the A channel and heard in the speakers on the left side, facing the instrument. The output of the external AM or FM tuner will be amplified in the B channel, and heard in the right-hand speakers compartment.

MONO-PHONO: This position is used for playing LP and 45-rpm monaural records. The recording is heard identically through both speaker systems.

STEREO-PHONO: This is the position to use for playing the new stereo disc monaural recordings. The two sound sources incorporated in the record are heard separately in their respective speaker systems.

STEREO-AUX: Use this position for listening to an external stereo sound source such as a stereophonic tape recorder. This position will also accommodate a monophonic sound source such as TV sound. The auxiliary sound source must be properly connected to THE FISHER as indicated in Auxiliary Input Connections in the Installation section.

Tuning Selector

The tuning selector knob is located at the extreme right of the control panel and is used for tuning to either FM or AM stations. Turning the knob moves the pointer across the scale, and also operates the MicroRAY Tuning Indicator. Easy and accurate tuning is achieved by running the dial pointer to the approximate frequency of the station desired, then tuning in precisely with the MicroRAY Tuning Indicator. Tune to FM stations on the 88-108 Megacycle band, and tune to AM stations on the 550-1600 Kilocycle band. You are correctly tuned in when the dark gap splitting the MicroRAY light column is as narrow as possible. Tuning to weak stations presents no special problems, since one of the unique features of MicroRAY is its increase in sensitivity with a decrease in signal strength.

Audio Controls

The three knobs in the center of the control panel regulate the sound produced in the speakers as follows:

BALANCE-VOLUME: This dual knob in the center of the control panel regulates the volume of the sound produced by either or both of the speaker systems. The smaller knob is turned clockwise to increase the volume in both speakers simultaneously. In some cases it may be desirable to vary the relative volume of the speakers because of the listener's position or to compensate for differences in the stereo program levels. This is accomplished by the larger knob. When the gold marker on this control is at NORMAL, the sound under normal conditions is evenly balanced between the speakers. Turning the knob toward A increases the relative volume of the left channel speakers. Rotating the knob toward B increases the relative sound level in the other set of 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.

REAR PANEL FACILITIES

All FISHER Radio-Phonographs are carefully adjusted at the factory for correct input levels and minimum hum, and the adjustments described below are not required at the time the unit is installed.

Hum Adjustment

Three hum adjustments are provided in THE FISHER radio-phonograph. HUM ADJUST 1 and HUM ADJUST 2 are located on the rear panel of the main receiver chassis. The third HUM ADJUSTMENT is found on the preamplifier chassis, located underneath the main chassis behind the record changer. To assure hum-free reception, set these adjustments in the order indicated below. All adjustments are made with the Function Selector at STEREO-PHONO and the record changer tone arm at rest.

HUM ADJUST 1: Turn the Volume control fully clockwise to maximum. With a small slot-headed screwdriver, rotate this adjustment until there is a minimum of hum in the loudspeakers.

HUM ADJUST 2: Turn the Volume control all the way down, making sure not to turn the power off. Using the same screwdriver as above, set this adjustment for minimum hum from the speakers.

HUM ADJUST 3: Turn the Volume up again to maximum. With a small screwdriver turn the HUM ADJUSTMENT on the preamplifier until there is a minimum hum in the loudspeakers.

Input Level Adjustment

There is a channel A level adjustment on the main chassis and an input level adjust on the power amplifier chassis. These levels are set to provide equal volume in both speaker compartments when the Balance control is at NORMAL.

Tape Recording

To make a tape recording, connect a shielded cable with standard BETA MA plug to the RCVR output jack on the rear panel. Connect the other end of the cable to the input jack on your recording equipment. The RCVR output jack supplies an ideal signal for recording purposes, which interferes in no way with normal listening. Whatever you hear through your speakers in standard monaural operation, or over Channel A in stereo operation, is also available at the RCVR output jack. The recording signal is not affected by the settings of the Radio-Phonograph audio controls. Consequently, you may continue to set the audio controls to your personal listening tastes, yet still obtain the uniformly flat signal required for making a good recording.

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.