

OPERATING INSTRUCTIONS AND WARRANTY



THE FISHER

Regent II

STEREOPHONIC

Radio-Phonograph and
Tape Recorder-Reproducer

PRICE \$1.00

WORLD LEADER IN HIGH FIDELITY
www.fisherconsoles.com

CONGRATULATIONS!

WITH your purchase of a FISHER instrument you have completed a chain of events that began many months ago, in our research laboratories. For it is there that the basic concept of the equipment you have just acquired came into being—its appearance, its functions, its quality of performance, its convenience of use.

But the end step—your purchase—is merely a beginning. A door has now opened, for you and your family, on virtually unlimited years of musical enjoyment. Recognizing that one of the keys to pleasurable ownership is reliability, we have designed this instrument to give long and trouble-free service. In fact, instruments we made over twenty-five years ago are still in use today.

Remember always that we want this equipment to give you the best performance of which it is capable. Should you at any time need our assistance toward that objective, please write me personally.

AN IMPORTANT SUGGESTION

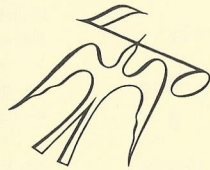
Many hours have been spent by our engineers and technical writers to create this instruction book for your guidance and enjoyment. If you want the *most* out of your FISHER, there is only one way to obtain it. With the equipment before you, please read this book carefully. It will be time well spent!

Avery Fisher

Founder and President

FISHER FIRSTS — Milestones in the History of High Fidelity Reproduction.

- | | | | | | |
|------|--|------|--|------|---|
| 1937 | First high-fidelity sound systems featuring a beam-power amplifier, inverse feedback, acoustic speaker compartments (infinite baffle and bass reflex) and magnetic cartridges. | 1956 | First to use Power Monitor in a home amplifier. | 1960 | First front panel antenna selector switch, 72-300 ohm, Local-Distant positions. |
| 1937 | First exclusively high fidelity TRF tuner, featuring broad-tuning 20,000 cycle fidelity. | 1956 | First All-Transistorized Preamplifier-Equalizer. | 1961 | First Multiplex units with STEREO BEACON and automatic switching, mono to stereo. |
| 1937 | First two-unit high fidelity system with separate speaker enclosure. | 1956 | First dual dynamic limiters in an FM tuner for home use. | 1961 | First complete receivers with Multiplex. |
| 1938 | First coaxial speaker system. | 1956 | First Performance Monitor in a high quality amplifier for home use. | 1961 | First FM-Stereo-Multiplex tuners with STEREO BEAM. |
| 1938 | First high fidelity tuner with amplified AVC. | 1956 | First FM-AM tuner with TWO meters. | 1961 | First loudspeaker system with frameless woofer cone, eliminating all parasitic resonance. |
| 1939 | First 3-Way Speaker in a high fidelity system. | 1956 | First complete graphic response curve indicator for bass and treble. | 1961 | First internal switching system to permit immediate tape playback with use of all controls and switches. |
| 1939 | First Center-of-Channel Tuning Indicator. | 1957 | First Golden Cascode FM Tuner. | 1962 | First simplified-operation Control-Amplifier, with infrequently used controls behind front-panel cover, yet immediately accessible. |
| 1945 | First Preamplifier-Equalizer with selective phonograph equalization. | 1957 | First MicroRay Tuning Indicator. | 1962 | First loudspeaker with eddy-current-damped voice coil. |
| 1948 | First Dynamic Range Expander with feedback. | 1958 | First Stereophonic Radio-Phonograph with Magnetic Stereo Cartridge. | 1962 | First bass speaker with combined serrated-aluminum and fiber cone. |
| 1949 | First FM-AM Tuner with variable AFC. | 1959 | First high-quality Stereo Remote Control System. | 1962 | First FM Tuner Kit with separate d'Arsonval meter for tuning and separate cathode ray stereo broadcast indicator (STEREO BEAM). |
| 1952 | First 50-Watt, all-triode amplifier. | 1959 | First complete Stereophonic FM-AM Receiver (FM-AM tuner, audio control, 40-watt amplifier). | 1962 | First Stereophonic FM Tuner with TUNE-O-MATIC Motor Tuning. |
| 1952 | First self-powered Master Audio Control. | 1959 | First high-compliance plus high-efficiency free-piston speaker system. | 1962 | First Supersonic Wireless Remote Control in a high fidelity component. |
| 1953 | First self-powered, electronic sharp-cut-off filter system for high fidelity use. | 1960 | First to use MicroRay for FM tuning and as a Recording Audio Level Indicator. | 1963 | First to use 8417 tubes with unique cavity-anode design. |
| 1953 | First Universal Horn-Type Speaker Enclosure for any room location and any speaker. | 1960 | First complete stereo FM-AM receiver with 60-watt power amplifier and new 7591 output tubes. | 1963 | First power amplifier to use oscilloscope-type, frequency compensated input circuit. |
| 1953 | First FM-AM Receiver with a Cascode Front End. | 1960 | Smithsonian Institution, Washington, D.C. accepts for its collection America's first commercially manufactured high fidelity radio-phonograph, made by Avery Fisher in 1937. | 1963 | First amplifier kit with STRATABALANCE, visual dynamic balancing system. |
| 1954 | First low-cost electronic Mixer-Fader. | 1960 | First reverberation device, for use in high fidelity equipment—The Fisher Dynamic Spaceexpander. | | |
| 1954 | First moderately-priced, professional FM Tuner with TWO meters. | 1960 | First stereo tuner with MicroTune. | | |
| 1955 | First Peak Power Indicator in high fidelity. | 1960 | First FM tuner with six IF stages. | | |
| 1955 | First Master Audio Control Chassis with five-position mixing facilities. | 1960 | First FM tuner with five limiters. | | |
| 1955 | First correctly equalized, direct tape-head master audio controls and self-powered preamplifier. | | | | |



THE FISHER REGENT II
STEREOPHONIC
**Radio-Phonograph and
Tape Recorder-Reproducer**

WITHIN THE BEAUTIFULLY CRAFTED cabinet of the FISHER *Regent II* is housed an ensemble of the very finest audio components, built to the most rigorous Laboratory Standards. This combination of superlative appearance and superior performance makes the *Regent* a delight to both eye and ear.

FISHER AM-FM-Multiplex tuners have become the recognized leaders in the industry, and have been selected by numerous networks and government agencies for broadcast monitor and off-the-air relay applications. The world famous Miracord 10 Automatic Turntable includes a professional, balanced tone arm and turntable, linked to the reliable and trouble-free Miracord changer mechanism only during the changing cycle. A Pickering magnetic cartridge, employing a diamond stylus and unique patented design, will reproduce your stereo and monophonic records with the utmost clarity and realism. In addition, the *Regent* includes the renowned Ampex tape recorder, an instrument of exquisite precision which records quarter-track stereo and monaural, and plays back stereo and monophonic tapes of all kinds. Also included is a dynamic stereo microphone for stereophonic or monophonic home recordings.

The Master Audio Control is one of the finest, most complete audio

instruments yet devised. Its full complement of controls and switches provides an amazing degree of flexibility, while retaining simplicity of operation through functional grouping of the controls. The all-transistor 120-watt power amplifier represents an important advance in the design of high fidelity components. By eliminating the output transformers and matching the output circuits to the characteristics of the speaker systems, a remarkably lifelike reproduction of the most complex orchestral passages is achieved. The final links in this chain of high quality components are the two full-range speaker systems, each one containing four matched speakers, each designed for precise reproduction within its segment of the audio spectrum. The result is superbly integrated and lifelike sound. By acquiring the *Regent*, you have brought into your home the best that modern engineering has to offer, and an absolute guarantee of many years of fully satisfying musical enjoyment.

WHAT IS STEREOPHONIC SOUND?

STEREOPHONIC SOUND (stereo) is a method of reproducing sound by means of two independent channels, left and right, so that a

TABLE OF CONTENTS

	PAGE
INSTALLING THE REGENT	3
HOW TO USE THE CONTROLS	3
AT-A-GLANCE OPERATING GUIDE	4
CONNECTING ADDITIONAL COMPONENTS	9
THE FM AND AM ANTENNAS	11

spatial feeling of direction and depth is recreated. It is the extension of high fidelity sound into three dimensions. In fact, it offers the closest approach to true high fidelity yet achieved, because it comes closest to the ultimate aim of all high fidelity systems — a perfect recreation of the original live sound. Thus, good stereophonic sound is high fidelity in the truest sense of the term.

This feeling of dimension is lost with monophonic (single channel) reproduction, because our ears help determine the relative position of separate instruments in an ensemble only if each hears a slightly different version of the sound, just as visual depth perception depends on the two separate, slightly different pictures received by the eyes. Merely using two or more speakers on a single amplifier does not solve the problem; it only spreads the single sound source without providing the all-important different “aural viewpoints.”

True stereo sound, then, requires the use of two independent sound paths from the origin to your ears, kept separate at all times during recording, transmission and reception. This requires the use of two separate sets of recording amplifiers, a means of keeping the channels apart during recording and radio broadcasting, and finally, two independent amplifier and speaker systems in the home. In a stereo record, each wall of the groove contains a separate signal, and the stereo cartridge is designed to pick up each of these two channels separately.

The new system of FM stereo broadcasting (known as “multiplex”) utilizes a separate supersonic signal, in addition to the main signal. By combining these two signals in a multiplex converter, the original left and right channels are recovered. Stereo tape recordings are made by impressing the two channels on separate parallel tracks running along the length of the tape.

No attempt is made to keep the two channels completely separate. In a live performance, your left ear hears many of the sounds on your right, and vice versa. Thus, keeping the channels totally apart from the original recording session to the final playback in your home would result in an unnatural effect. But enough separation is maintained so that a definite feeling of direction occurs as you listen to the reproduced sound. The result is a remarkably vivid illusion of great depth and spaciousness, such as is normally obtained only at a live performance.

FM MULTIPLEX STEREO

FM BROADCASTING has a frequency range far in excess of the normal hearing range. For example, FISHER wide-band tuners have a frequency range which extends to 75 kc, while the normal hearing range does not exceed 20 kc. This extra “space” in the frequency response has now been put into service for the transmission of a second and third signal simultaneously with the main carrier. The third (and highest) signal is used in commercial applications (for background music) and will not be received on home high fidelity equipment. The other two signals, however, are used for the reception of stereo programs. During multiplex broadcasts, the main carrier, which can be picked up by any FM tuner or receiver, contains the sum of blended signal from both stereo channels (left plus right). The second supersonic signal contains the information necessary for stereo. This system makes it possible for an ordinary FM set to receive a fully balanced monophonic program during multiplex transmissions. At the same time, however, the diode bridges of the *Regent* multiplex converter separate the two stereo channels from the main and stereo trans-

missions, thus providing you with all the added benefits of full stereo sound.

It is important to keep in mind, however, that the stereo subcarrier is inherently more noisy than the main carrier. In order to receive weak or distant stations with acceptably low noise levels, you may find it necessary to change to an antenna with higher gain, or to relocate your antenna in a more favorable position. (See page 11 for a more detailed explanation.)

INSTALLING THE REGENT

THE REGENT operates on *AC only*. Connect the power cable at the back of the cabinet to a wall outlet supplying 105 to 120 volts at 60 cycles. Maximum power consumption is 441 watts.

Automatic Turntable

The heavy, precisely balanced platter of the automatic turntable is protected from damage during shipment by a foam plastic filler, which also contains the spindles. To prepare the Miracord Automatic Turntable for operation, the following steps should be taken:

- 1—Remove the two large machine screws from the wooden bracket holding the foam plastic and platter in place. Then lift off the wooden bracket.
- 2—While holding the platter within the plastic filler, lift the filler straight upward until clear of the compartment walls, and place on a horizontal surface.
- 3—Remove the two screws holding the metal brackets, and discard the brackets. The Miracord is now ready for final installation as described on page 5 of the Miracord instruction booklet.

Antennas

The *Regent* is equipped with two antennas, one for FM and one for AM broadcasts. These should provide good reception in all cases except extreme fringe areas, or where special local conditions result in low signal strength. (Buildings constructed of steel girders, for

example, can cause a loss of signal strength.) If reception is poor, see the instructions on page 11 to rectify this condition.

HOW TO USE THE CONTROLS

THE OPERATION of all controls is explained in this section. Referring to Figure 5 while reading will be helpful. Before attempting to operate the Automatic Turntable, Tape Recorder or stereo microphone, read the instruction booklet accompanying these units.

Master Audio Control

This is the control center of the *Regent*, located at the bottom of the center panel. It will permit you to select any component you wish to play through the sound system—the Tuner, Automatic Turntable, Tape Recorder, or any auxiliary components connected to the input jacks at the rear of the cabinet. The control center will also enable you to adjust the volume and tonal characteristics of sound from either monophonic or stereophonic program material. Learning to operate these controls correctly will result in optimum performance from the *Regent*.

1 AC Off and Master Volume

The AC Off switch, which supplies power to the *Regent*, is combined with the Master Volume Control. Turning this switch slightly clockwise until it clicks, turns on the power to the entire *Regent*. The Master Volume Control is used to adjust the level of sound for both channels. Turning this control in a clockwise direction will increase the volume simultaneously at both speaker systems.

2 Pushbutton Selectors

The five pushbuttons are used to select the type of program source you wish to hear, whether radio, phono or tape. They operate as follows:

PHONO: Selects the Automatic Turntable for listening to both monophonic and stereo records.

TUNER: Selects the Tuner for all types of radio broadcasts.

TAPE PLAY: Selects the Tape Recorder for playback of *previously recorded* tapes. This pushbutton should *not* be depressed while making a recording. See the enclosed sheet and your recorder manual for further details about tape recording and playback.

AUX 1 and 2: Select any additional *external* components you may have connected to the *Regent*.

3 Equalization

The Equalization switch is utilized *only* if you have depressed the PHONO pushbutton. Its purpose is to provide proper equalization for the most commonly used types of records, and to allow you to play several types of externally connected low-level sound sources through the sound system of the *Regent*. Each position of this switch is used as follows:

AT-A-GLANCE OPERATING GUIDE

To listen to:	Press Push-button Marked:	Mode Selector to:	Selector (Tuner) to:
FM Monophonic Program	TUNER	STEREO	FM AUTOMATIC
FM Multiplex Stereo Program	TUNER	STEREO	FM AUTOMATIC
AM Program	TUNER	STEREO	AM
Monophonic Record	PHONO	MONO PHONO	_____
Stereo Record	PHONO	STEREO	_____
Stereo Tape Recording	TAPE PLAY	STEREO	_____
Monophonic Tape Recording	TAPE PLAY	STEREO	_____

MIC: This position allows you to use a high impedance microphone with your *Regent*. See 'ACCESSORIES' for further details.

3¾: This position is used only if you have connected an *external* tape deck (a tape recorder mechanism without any internal electronics) to the TAPE HEAD jacks. Correct equalization for tapes played at a speed of 3¾ inches per second is automatically provided.

7½: This position provides correct equalization for tapes played at 7½ inches per second on an *externally* connected tape deck.

78: Play European 78 rpm records in this position. You will need a special 78 rpm stylus assembly for your Pickering cartridge. This assembly is available from your FISHER Dealer, and may be easily interchanged with the stereo/mono stylus assembly, supplied.

COL: Use this position for playing records having the old Columbia (NAB) equalization. (This includes Columbia LP and 78 rpm records made before 1955, as well as other LP records made before this period.)

RIAA: This position should be used for all records having the RIAA equalization curve. (This includes all records made during and since 1955, both monophonic and stereo.)

RIAA-2, COL-2: These positions provide both the new and old equalization curves for an *external* record player connected to the MAG 2 jacks on the rear panel. Unless such an additional record player is connected, these positions will not be operative.

4 Channel Indicator Lights

The five colored jewels provide a visual indication of the position at which the Mode Selector is set and will light in different sequences depending upon the type of circuit operation. The L and R jewels represent the left and right speaker systems; while the A and B jewels represent Channel A and B inputs. The C jewel will brighten when the Remote Volume control is used. Figure 1 is a guide to the different light sequences. For example: for BALANCE RIGHT, the A, B and R jewels will light. This means that the signals at the Channel A and B inputs will appear at the right speaker system.

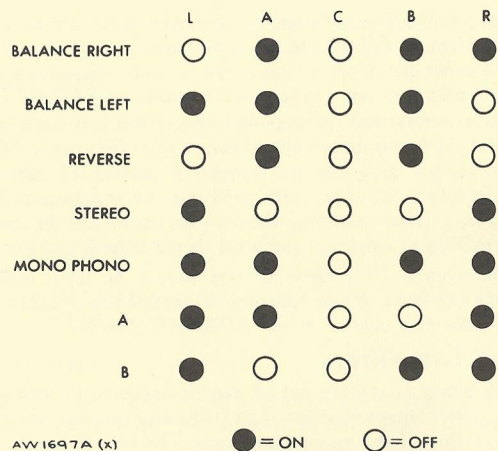


FIGURE 1. Channel indicator lights

5 Mode Selector

The Mode Selector permits the choice of any one of seven different modes of operation. These modes are as follows:

BALANCE LEFT AND RIGHT: In the BALANCE RIGHT position, the signals in both A and B channels are mixed and fed to the right loudspeaker; while in the BALANCE LEFT position, the mixed signal is fed to the left loudspeaker. By switching back and forth between these two positions, you can balance the sound from both speaker systems with the Balance Control.

REVERSE: In this stereo position, the signal from Channel A is switched to the Right speaker system, while the signal from Channel B is switched to the Left speaker system. Use this position only if the stereo arrangement at the program source is reversed.

STEREO: This is the *normal* listening position for *all* stereophonic program sources (Channel A input to Left speaker system, and Channel B input to Right speaker system.)

MONO PHONO: Use this position to play *monophonic* records. The monophonic signal will be fed to both channels for a superior monophonic effect. Rumble and noise components due to vertical stylus movement will be completely eliminated. (This position may also be used to make rapid comparisons between stereophonic and monophonic sound with any input.)

A: In this position, the signal from any component connected to the input jacks in Channel A is fed to both Left and Right speaker systems, resulting in a superior monophonic effect.

B: In this position, the signal from any component connected to the input jacks in Channel B is also fed to both speaker systems.

6 Balance

This control is used to obtain equal sound levels at both speaker systems — an important consideration for achieving the optimum stereophonic effect. (This is also advantageous for monophonic operation where two channels are used.) With the Balance control pointing to NORMAL, the volume at the left and right speaker systems should be the same, theoretically. However, an imbalance may occur due to room acoustics, record characteristics, listener position, etc. This imbalance can be corrected easily by turning the control slightly toward MAX-L or MAX-R to increase the volume level at the left or right speaker systems, as required. It should be pointed out that this is not a volume control; for, as the level of sound is increased on one speaker system, it is decreased on the other, maintaining the same over-all sound output.

NOTE: It is possible to cut off the sound entirely from the left or right speaker system by advancing the Balance control to the extreme MAX-R or MAX-L positions.

7 Bass and Treble Controls

The Bass controls increase or decrease the amount of bass tones heard in the speakers. With the Bass controls in the NORMAL position,

the bass tones will sound exactly as they were recorded at the program source. If you wish to increase the bass because of a bass deficiency in the record, tape or radio broadcast you have selected, simply turn the Bass controls the desired amount toward the MAX position. To decrease the prominence of the bass tones, turn the Bass controls toward MIN. Normally, the Bass controls for Left and Right Speaker systems rotate together, but if you wish to adjust the Bass separately for each channel, hold one of the knobs while turning the other.

The Treble controls adjust the intensity of the treble tone heard in the speakers. As with the Bass controls, the NORMAL position will result in the same degree of treble tone as exists in the program source. The relative amount of treble tone can be increased, resulting in a more brilliant and crisp sound, by turning the Treble controls toward MAX; and it can be decreased, resulting in a more mellow and intimate tone, by turning the control toward MIN. The Treble controls may also be adjusted individually for each channel by holding one knob while rotating the other.

8 Loudness Contour

As the volume of sound is reduced, our natural hearing sensitivity drops off at both ends of the audio frequency range. The Loudness Contour switch enables you to decrease the volume without losing these important high and low frequencies (treble and bass tone).

If you wish to listen at low volume, turn the Loudness Contour switch ON. In general, it is suggested that the Loudness Contour switch be used only at medium-low to low volume.

9 Stereo Dimension

The new type of Stereo Dimension control included in your *Regent* permits you to increase and decrease the stereo separation of the original program source. With this control in the NORMAL position, you will hear the same channel separation that is present in the program source. If you wish to expand the stereo dimension for special effects, or to compensate for inadequate separation in a program source, turn the control clockwise past the NORMAL position. When

this is done, out-of-phase components of each channel are blended with the opposite channel to increase the separation.

If, on the other hand, the record, tape or stereo broadcast to which you are listening has an exaggerated separation between channels, resulting in an unnatural "ping-pong" effect, you can compensate for this condition by turning the control counterclockwise past NORMAL. By doing this, you will mix an increasing portion of each channel signal in the other channel, thus reducing the separation. With the control in the MONO position, the two channels will be completely blended, resulting in a monophonic sum signal in both speaker systems.

NOTE: The Stereo Dimension control should be used only during stereophonic operation. When listening to monophonic program sources, be sure to leave this control in the NORMAL position

10 High and Low Filters

The High Filter is a sharp cut-off circuit designed to remove annoying record scratch, hiss and other high frequency noises without dulling the treble portion of the musical program. The Low Filter is similarly designed to remove low frequency noise without weakening bass tones in the musical signal.

11 Tape Monitor

Your FISHER *Regent* is equipped with complete tape monitoring facilities. When making a recording, you can actually listen to the tape a fraction of a second after it is recorded by sliding the Tape Monitor switch to ON. Then, by placing the switch in the OFF position, you can compare the quality of the program source (such as an FM multiplex program) with the sound quality of the tape recording you are making. *The Tape Monitor switch is used only when making a recording, and should be OFF at all other times.* The TAPE push-button should be used for playback of previously recorded tapes. See your recorder manual for further details on tape recorder operation.

12 Remote Volume

The Remote Volume control can be used to control the sound level of the center output (on rear panel) if connected to an external high

fidelity system located in another room of your home. Such an additional system must be connected as described on page 10.

13 Phase Reverse

The speakers of your *Regent* have been connected for proper phasing at the factory. Normally, they will “push” and “pull” in unison, rather than in opposition. Occasionally, however, an improperly phased stereo radio program or recording may be produced through error. In this case, the program may not seem to provide a full, solid tone, especially in the bass range. To restore correct phasing, slide the Phase Reverse switch to ON. If the bass tone improves, leave the switch in the ON position until the end of the program, but *be sure to return it to OFF afterwards.*

Speaker Controls

The tonal characteristics of each speaker system can be adjusted by using the Presence controls on the rear of the *Regent*. These controls, which are located in the rear of their associated speaker systems, adjust the way each speaker system responds to the higher frequencies in the audio spectrum, and match the performance of the *Regent* to the characteristics of your listening room. Generally, a room with heavy drapes, carpets or other sound absorbing materials will require a setting further clockwise (as viewed from the rear), while a room with more shiny, hard surfaces will require a setting further counter-clockwise. These controls have been preset at the factory for smoothest response in average listening rooms. We suggest that you listen to a variety of program sources with different tonal characteristics before making any adjustments.

Speaker Selector

You will find this switch located in front of the Tape Recorder. It has four positions: OFF, MAIN, REMOTE, and MAIN + REMOTE. When the Speaker Selector switch is set to OFF, all speakers associated with the console (main and remote) are disabled, enabling the listener to utilize the privacy of earphone listening.

When the switch is in the MAIN position, only the built-in left and right speaker systems operate. In the remote position, only speakers which have been attached to the EXTERNAL SPKR. terminals on the amplifier chassis will function. (See “ACCESSORIES” for information about additional speakers, which may be added for increased stereo separation or to provide stereo in another room.) When the switch is turned to MAIN + REMOTE, the built-in and additional speakers play simultaneously.

Earphones

Your *Regent* has provision for connecting a pair of stereo earphones. The jack labelled EARPHONES, located in front of the Recorder next to the Speaker Selector switch, permits connection of a pair of FISHER earphones, which are engineered to precisely complement the excellent acoustic characteristics of your console. These earphones are available from your dealer, who will assist you in the installation of more than one pair of phones, should you desire.

To use your earphones, plug the connector on the end of the phone cable into the Earphone jack. Turn the Speaker Selector switch to OFF and adjust the Volume control to suit your requirements.

Automatic Shut-off Switch

This switch is located *inside the Automatic Turntable compartment.* When turned to the ON position, it will cause the *entire Regent* to shut off after the last record has been played on the Automatic Turntable. The OFF position disables this feature — only the Automatic Turntable itself will shut off after the last record.

Note: With the switch ON, the *Regent* will be completely inoperative when not using the Automatic Turntable. Therefore, *always turn the switch to OFF when records are not being played.*

14 FM Antenna and AC Power Switch

AC OFF: This position turns off power to the Tuner only, and may be used when listening to records or tapes to conserve the life of the tubes in the Tuner.

NORMAL: This position turns on power to the Tuner and adjusts the FM antenna input circuit for normal reception from all stations except those so powerful as to cause overload distortion.

LOCAL: This position is used for reception of strong local stations which cause overload of the FM input circuits. Overloading exists when a single station appears at several points on the FM band.

15 Tuning

The tuning knob selects both FM and AM stations. Turning the knob will move the pointer across the dial scale and vary the tuning meter. Each station should be tuned for a maximum indication on the tuning meter. When this point is reached, optimum reception is assured. For your added convenience, a logging scale with linear divisions from 0 to 100 is included between the FM and AM bands. By making a note of the location of your favorite stations on this linear scale, you will be able to tune to them more quickly and accurately.

To find an FM stereo program, simply tune slowly across the band with the Selector switch at FM AUTOMATIC. When you reach a station broadcasting a multiplex stereo program, the green STEREO BEACON will light and the Tuner will automatically switch into the stereo mode. Provided your amplifier is set for stereo reproduction, you will instantly hear the program in stereo sound, without the need for any manual switching.

Note: For a limited time, some stations, which broadcast subscriber background music in addition to normal programming, will transmit a signal which may cause the STEREO BEACON to light. The background music channel, intended only for subscribers, cannot be received on the Tuner. Such stations, however, also broadcast a normal monophonic signal intended for the general listening public. If the STEREO BEACON lights on such a station, turn the Selector to FM for normal reception.

16 Selector Switch

AM: This position is used for AM reception.

FM: Use this position for monophonic reception of FM *stereo* programs

that are too weak and noisy for stereo reception even with the Stereo Filter switch at ON. Use the FM AUTOMATIC position for monophonic reception of *mono* programs.

FM AUTOMATIC: This position is normally used for both monophonic and stereophonic FM programs. The STEREO BEACON will light whenever a multiplex program comes on the air, and the Tuner will automatically switch into the stereo mode. When the station reverts to monophonic operation, the Tuner will automatically switch to the monophonic mode and the monophonic signal will appear at both speakers. At the same time the STEREO BEACON will turn off. This feature makes manual switching unnecessary when an FM station alternates between monophonic and stereo selections. The Mode Selector of your amplifier should be left in the Stereo position for *both monophonic and stereophonic FM broadcasts*.

FM STEREO: This position locks the Tuner in the stereo mode even when there is no stereo program being received. The STEREO BEACON will remain *on* at all times. This feature is useful in receiving a stereo program in an area where heavy air traffic or atmospheric conditions cause severe fading of an otherwise strong signal, resulting in a fluttering sound in the speakers and flickering of the STEREO BEACON. *Be sure to return the Selector to FM AUTOMATIC at the conclusion of the program.*

17 Stereo Filter Switch

The Stereo Filter is designed to suppress noise on FM stereo programs from weak or distant stations. FM stereo multiplex programs are inherently more noisy than ordinary monophonic broadcasts because twice as much information must be sent over a single FM station, and the extra information needed for stereo carries with it an extra noise component. The Stereo Filter is designed to eliminate most of the extra noise brought in by the added stereo channel without affecting the main carrier. This means that the Stereo Filter does not appreciably alter the tonal characteristics of the stereo program although channel separation in the upper frequency range is somewhat reduced. For this reason, use the Stereo Filter only on FM stereo programs too

noisy for enjoyable reception and return the switch to OFF at the conclusion of the program.

18 AM Bandwidth Switch

SHARP: This position provides maximum selectivity (ability to discriminate between two stations close in frequency) for difficult receiving conditions. It should be used only under such conditions, because the audio frequency response is greatly restricted.

NORMAL: This position, which provides good fidelity and selectivity, should be used for most reception.

WIDE: Use this position for receiving strong, local stations where interference from adjacent stations does not occur. It provides maximum fidelity and the widest frequency response.

19 FM Muting Control

This control is normally adjusted once, after which it requires only occasional resetting. Proceed as follows:

1 — With the FM Muting control at OFF and the Selector at FM AUTOMATIC, tune to a point on the band where the ordinary between-station rushing noise is heard.

2 — Turn the FM Muting control slowly clockwise to a point a little beyond the setting where the noise ceases.

3 — Check this setting at several between-station points across the entire band. If noise is heard, turn the control slightly further clockwise.

This setting will eliminate inter-station noise while permitting even the weakest station to be heard. Turning the control further clockwise will increase the muting threshold and silence some of the weaker stations on the band.

CONNECTING ADDITIONAL COMPONENTS

ALTHOUGH THE *Regent* is a complete home music system in itself, it includes provisions for the addition of several external com-

ponents. These may include the FISHER SPACEEXPANDER and WS-1 speakers, or the sound from your TV set.

WS-1 Speakers

Jacks are provided (see Figure 7) on the chassis of the power amplifier for the connection of two FISHER WS-1 Speakers as adjuncts to the two internal speaker systems. With the addition of the WS-1 system, the stereophonic as well as monophonic sound pattern can be augmented to a startling degree. Simply connect the WS-1 cables to the WS-1 jacks. Place the speaker connected to the jack on the LEFT (WS-1 jack cabinet) to the left of the *Regent*. The speaker connected to the RIGHT WS-1 jack should be placed to the right of the *Regent*.

SPACEEXPANDER®

Special SPACEEXPANDER jacks (see Figure 5) are located on the top rear panel of the Master Audio Control. The SPACEEXPANDER is designed to add the natural, controlled reverberation of a large concert hall to your listening room. Before installing the SPACEEXPANDER, remove the two jumper wires between the SPACEEXPANDER jacks but retain the jumpers for possible future use. *These jumpers must be inserted when the SPACEEXPANDER is not connected or the Regent will be completely inoperative.* Make the following connections:

1 — Channel A TO REVERB OUT jack on the *Regent* to the Channel A OUTPUT jack on the SPACEEXPANDER.

2 — Channel B TO REVERB OUT jack on the *Regent* to the Channel B OUTPUT jack on the SPACEEXPANDER.

3 — Channel A TO REVERB IN jack on the *Regent* to the Channel A INPUT jack on the SPACEEXPANDER.

4 — Channel B TO REVERB IN jack on the *Regent* to the Channel B INPUT jack on the SPACEEXPANDER.

See your Fisher Dealer for more information on this installation.

TV Sound

Because television receivers differ widely in circuit design, it is

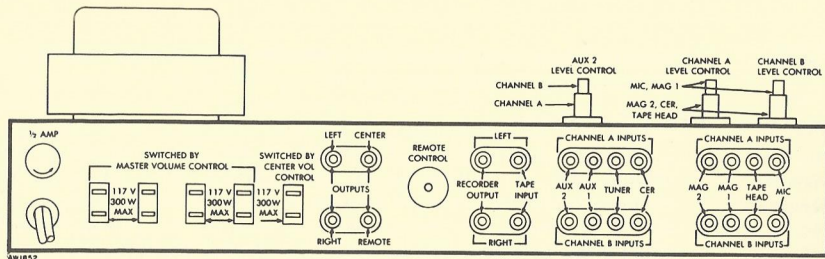


FIGURE 2. Rear panel of the Master Audio Control

advisable to consult your serviceman before attempting to connect the sound output of your TV set to the sound system of the *Regent*. However, once the method of connection has been determined, the cable from the TV set should be connected to the AUX 2 input jack (Channel A). The sound portion of the TV program will be heard through the *Regent* when the AUX pushbutton is depressed.

Additional Record Player

An external record player with magnetic cartridge may be connected to the MAG 2 input jacks on the rear panel of the Master Audio Control. It can be played through the sound system of the *Regent* by depressing the PHONO pushbutton and turning the Equalization switch to RIAA-2 (for records made since 1955) or COL-2.

Remote High Fidelity System

The sound output of the *Regent* may be connected to another high fidelity system in a different location in your home. There are two methods of making this connection. If you would like to control the sound level of the *remote* system from the front panel of the *Regent*, make your connection to the CENTER jack on the rear panel of the Master Audio Control. If you prefer a constant level signal for the *remote* system, independent of the controls on the *Regent*, use the REMOTE jack on the rear panel. In each case, shielded audio cable should be used, not exceeding 100 feet in length.

Remote Speakers

The incomparable sound of your *Regent* may be heard in other rooms of your home by placing high quality speakers (such as the FISHER XP series) in them and connecting the speakers to the REMOTE SPEAKERS terminals on the center horizontal shelf at the rear of the *Regent*. Standard double-conductor power cord can be used. The speaker to your left (viewed from the listening area) should be connected to the terminals on the *Regent* marked LEFT and the speakers on your right to the RIGHT terminals. To assure correct phasing of the speakers — the speakers, as they vibrate, should “push” and “pull” in unison, rather than in opposition — connect the ground or common terminal of each speaker to its respective COM terminal on the *Regent*. The *remote* speakers will be heard when the Speaker Selector (in the Automatic Turntable compartment) is turned to the MAIN + REMOTE or REMOTE positions.

Additional Microphone

An additional microphone may be connected to play through your *Regent*, should you wish to use it as a high-fidelity public-address system with either the built-in or *remote* speakers. Connect the microphone to the Channel A MIC jack, depress the PHONO pushbutton, and turn the Equalization switch to MIC. In the event that you wish to connect a pair of microphones, merely connect the second microphone to the Channel B MIC jack. If only one microphone is used,

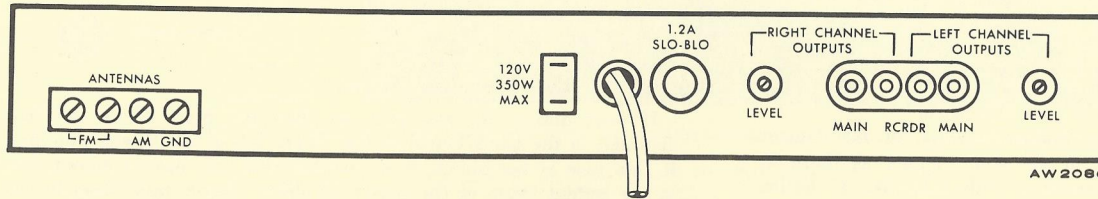


FIGURE 3. Rear panel of the Tuner

turn the Mode Selector switch to MONO; with two, use the MONO position for mixing, and the STEREO position for stereophonic sound.

Note: The console should normally be off when recording with microphones. You should not attempt to record with the microphone connected in the manner outlined above, since this would result in acoustic feedback, which may produce an undesired echo, or a loud howl, and could even result in damage to the console. Microphones should be connected to the recorder *directly*, as mentioned in the recorder manual.

THE FM AND AM ANTENNAS

YOUR *Regent II* includes a built-in folded dipole FM antenna and a ferrite loop AM antenna. Both should prove more than adequate for normal reception in most areas. If you live in a fringe area, however, or wish to receive stations from long distances, especially with FM multiplex, you may need an additional rooftop antenna. External antennas may be added to the *Regent* as follows:

FM ANTENNA: Remove the two leads on the FM screw terminals on the rear panel of the tuner chassis, and connect the leads from your external antenna.

FM multiplex reception requires stronger signals to achieve the same low noise levels as you have come to expect from ordinary monophonic programs. You may find, therefore, that placement of the

antenna may have to be improved for good multiplex reception. In some cases, especially in fringe areas, an outdoor rooftop antenna or even a highly directional yagi type may be needed for multiplex reception, even though the indoor antenna suffices for monophonic transmissions. Consult your FISHER Dealer for further information.

AM ANTENNA: To install a long-wire antenna for long-distance reception, disconnect the link between the AM and GND screw terminals and connect the antenna to the terminal marked AM.

HOME MAINTENANCE

Replacing Dial and Indicator Lamps

Before replacing any of the dial lamps, disconnect the *Regent* from AC power.

The Tuner. The dial lamps are easily reached and replaced in the tuner section by removal of the front panel. Remove all front-panel knobs, and remove the two hex nuts from the control shafts. Lift off the front panel. The lamps are held in place with spring clips, and can be removed with the fingers. Replace with new dial lamps from your FISHER Dealer (Part No. I 500826). The mode indicator lamps and the STEREO BEACON® lamps should be replaced, if necessary, with G.E. No. 47 lamps, or equivalent. These lamps are of the 'bayonet' type, and are removed by pressing them in with the fingers and making a 1/8 turn *counterclockwise*. Replace-

ment lamps should be pressed into place, with the base pins in the slots of the socket, and making a $\frac{1}{8}$ turn *clockwise*.

The Master Audio Control. The indicator lamps in the Master Audio Control section are reached in the same manner as those in the tuner. Replace them, when necessary, with G.E. No. 47 bulbs, or equivalent, following the procedure outlined above.

Replacing the Power Fuses

Each individual electronic component within the *Regent* is fused for protection against overloads. If all the components do not operate, check the Automatic Shutoff control (see the section describing the operation of this control for the proper setting). If the Automatic Shutoff control is set correctly, and the set still fails to operate, call your authorized FISHER serviceman.

If one or more of the components fails to operate, remove the AC cord from the wall outlet, and check the fuse of that component to see if it has blown. Replace the fuse(s), if necessary, with Slo-Block fuses of the following values:

<i>Component</i>	<i>Fuse Value</i>
Tuner	1.2 A
Master Audio Control	0.5 A
Power Amplifier	2.5 A
Tape Recorder	1.25A

Restore power to the set. If the fuse(s) blow again, consult your authorized FISHER serviceman. If the power fuses are not blown, or if a replaced fuse does not restore normal operation nor blow again, see the following paragraph.

Replacing the Speaker Fuses

If your dial is lit, and your set does not play, check the fuse mounted in the black holder on the upper left of the power amplifier. If this fuse is not blown, it is possible that you have a blown fuse in the output stage of the power amplifier. Power transistors in the output stage could easily be destroyed if the speaker terminals were shorted to each other, or to ground. To prevent this, as well as to protect the speakers, each output stage uses two fuses, located under the metal cover on the top of the power amplifier chassis, which are precisely rated and manufactured to function within extremely narrow tolerances. To protect the user, the fuse receptacles will only accept fuses of the type supplied with the unit (the use of other types is not permissible, since damage to the set might result). Failure to comply with the instructions for fuse replacement may result in permanent damage to your unit, and voids the warranty. If either channel (or both) is inoperative, pull the power plug from the wall receptacle and remove both fuses used in that channel by pushing each fuse down, rotating it counterclockwise, and lifting it from its receptacle. Replace the fuses with a known good fuse (two spare fuses are supplied in a plastic bag, attached to the rear of the cabinet. Additional fuses are available from your dealer as Fisher part No. F-50512-1 [2 amp] or from your local radio supplier as Bussmann type N2). Next, turn the set on. If the channel(s) remain inoperative, consult your dealer or authorized Fisher Service Station.

Should distortion become apparent in either channel, replace one of the fuses in that channel in the same fashion described above. If distortion is still apparent after restoring power to the set, replace the other fuse in the channel with the fuse just removed. If restoration of power after the second replacement is not accompanied by cessation of the distortion, consult your dealer or authorized Fisher Service Station.

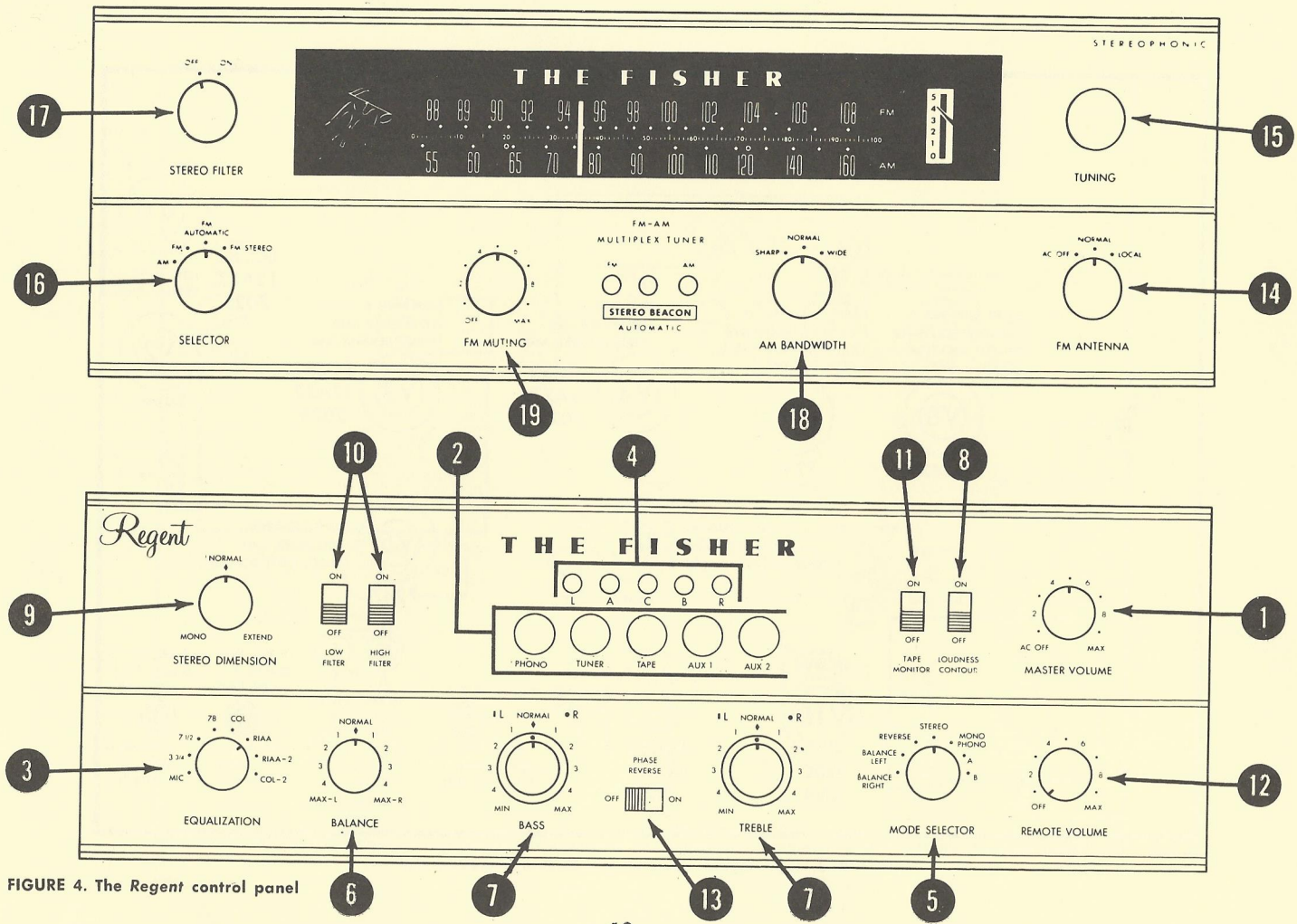
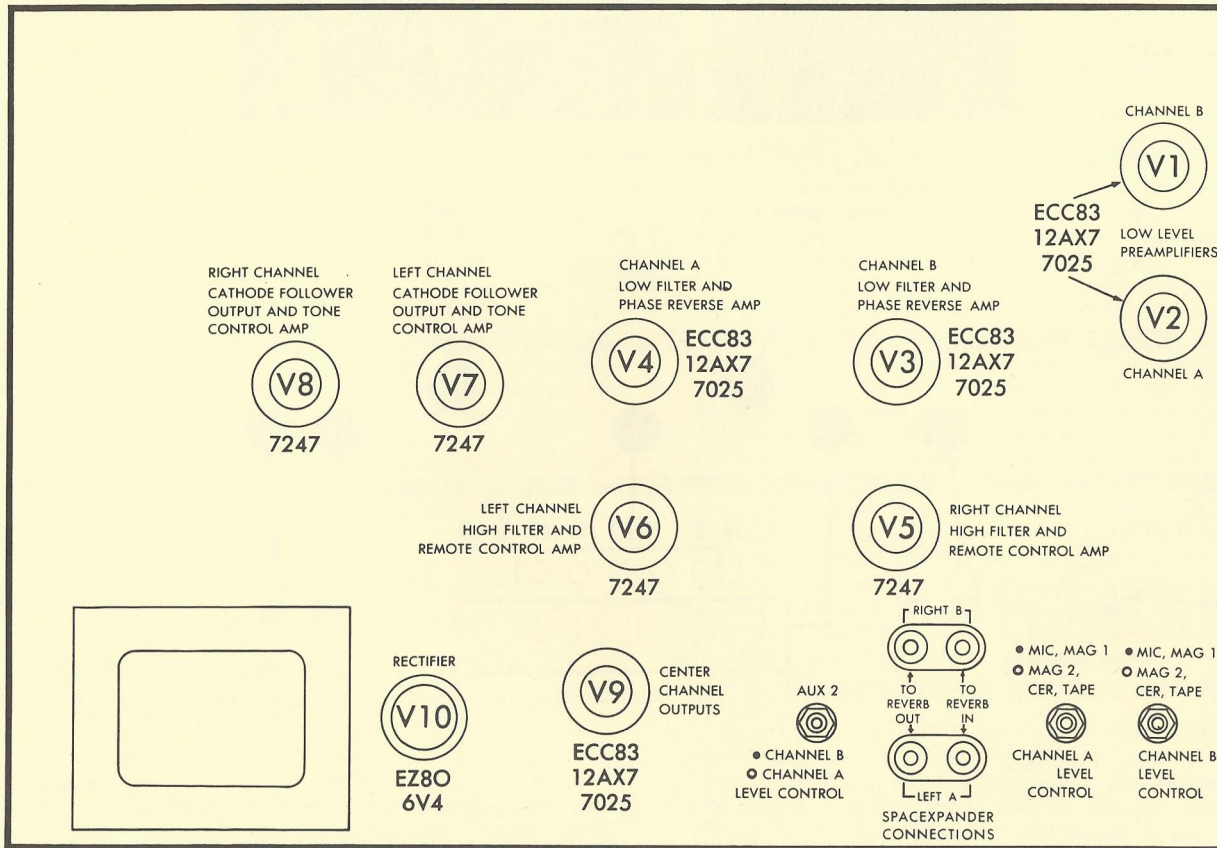


FIGURE 4. The Regent control panel



AW1851A

FIGURE 5. Tube layout chart of the Master Audio Control

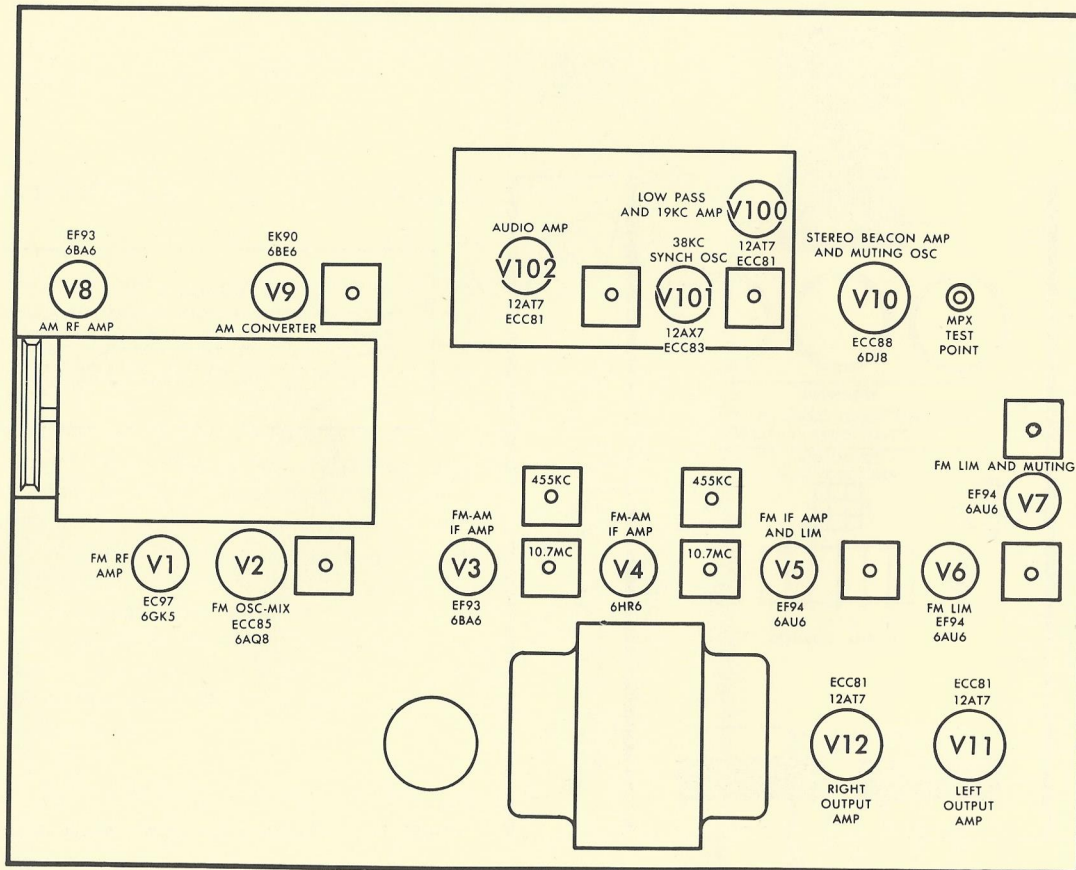
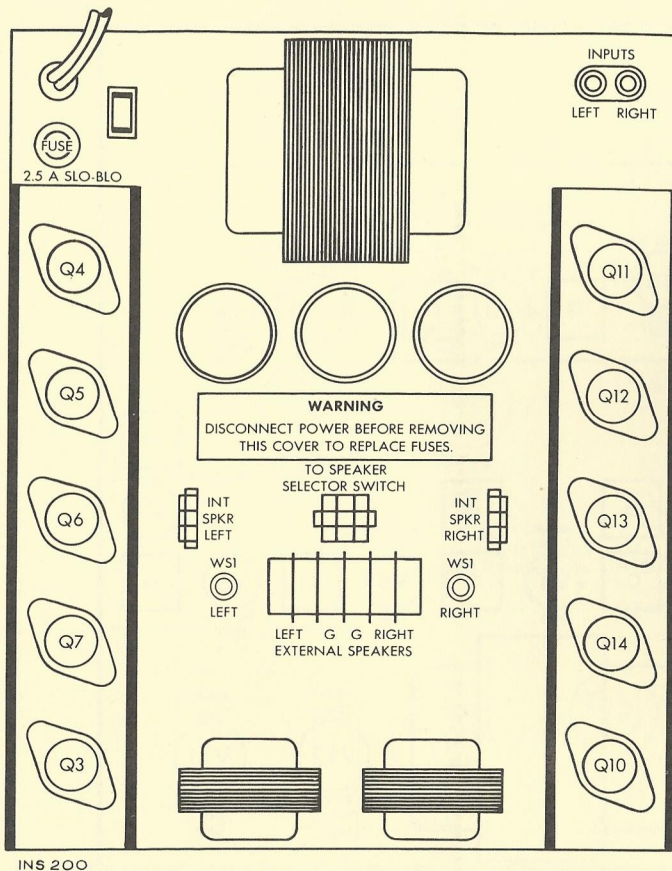


FIGURE 6. Tube layout chart of the Tunes

AW2086



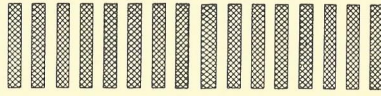
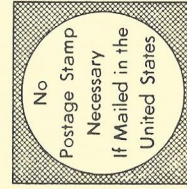
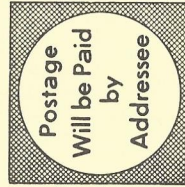
IMPORTANT
 BEFORE CONNECTING EXTERNAL SPEAKERS, DISCONNECT POWER LINE. CHECK CAREFULLY FOR SHORTS IN SPEAKER CABLES AND CONNECTIONS, OTHERWISE FUSES WILL BLOW. DO NOT USE SPEAKERS WITH IMPEDANCE BELOW 4 OHMS. SEE BOOK FOR SERVICE NOTES.

FIGURE 7. Tube layout chart of the Power Amplifier

Warranty To Owner

The FISHER equipment you purchased was carefully tested and inspected before leaving our laboratories. If properly installed and operated in accordance with the instructions furnished, it should give you the finest results of which it is capable. This equipment is unconditionally guaranteed against all defects in material and workmanship. Any defects in workmanship will be adjusted without charge for ninety days from the date of sale to the original purchaser. Defective parts will be replaced without charge for one year from the date of sale to the original purchaser. During the first ninety days there will be no charge for replacement labor. Parts replacement and labor, under the above warranty, will be supplied by the dealer from whom the purchase was made. To protect your warranty, and to register your ownership, be sure to mail this card within 10 days from date of purchase.

FOR WARRANTY SERVICE, CONSULT YOUR DEALER



BUSINESS REPLY CARD

FIRST CLASS PERMIT No. 45377, NEW YORK, N. Y.

FISHER RADIO CORPORATION

21-21 44th Drive

Long Island City 1, N. Y.





Please complete and return this
WARRANTY CARD

PLEASE PRINT

USER'S LAST NAME	FIRST NAME	INITIAL
USER'S HOME ADDRESS		
CITY		STATE
DATE OF PURCHASE	MODEL NO.	SERIAL NO.

GOOD WI 1782A

Name of Dealer _____

City _____ State _____

I heard of the FISHER through Friend Dealer Advertising

If purchased because of advertising, please give name of publication: _____

I chose THE FISHER because: _____

What I think of my FISHER equipment: _____

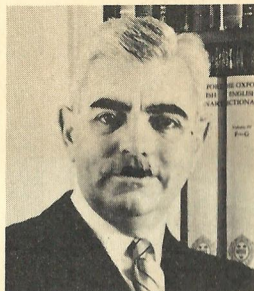
I also own these additional hi-fi units and speakers: _____

Please send copies of your literature to:

Name _____

Address _____

**WARRANTY VOID UNLESS COMPLETED AND RETURNED
WITHIN 10 DAYS AFTER DATE OF PURCHASE**



The Man Behind the Product

AVERY FISHER
Founder and President,
Fisher Radio Corporation

TWENTY-FIVE YEARS AGO, Avery Fisher introduced America's first high fidelity radio-phonograph. That instrument attained instant recognition, for it opened a new era in the faithful reproduction of records and broadcasts. Some of its features were so basic that they are used in all high fidelity equipment to this day. One of these models is now in the permanent collection of the Smithsonian Institution as an example of the earliest high fidelity instruments commercially available in this country.

The engineering achievements of Avery Fisher and the world-wide reputation of his products have been the subject of descriptive and biographical articles in *Fortune*, *Time*, *Pageant*, *The New York Times*, *Life*, *Coronet*, *High Fidelity*, *Esquire*, *The Atlantic*, and other publications. Benefit concerts for the National Symphony Orchestra in Washington and the Philadelphia Orchestra, demonstrating recording techniques, and the great advances in the art of music reproduction, used FISHER high fidelity instruments both for recording and playback, to the enthralled audiences. FISHER equipment formed the key part of the high fidelity demonstration at the American National Exposition in Moscow, July 1959. FISHER FM and FM-AM tuners are the most widely used by broadcast stations for monitoring and relay work, and by research organizations—under conditions where absolute reliability and maximum sensitivity are a 'must.'

The FISHER instrument you have just purchased was designed to give you many years of pride and enjoyment. If you should desire information or assistance on the installation or performance of your FISHER, please write directly to Avery Fisher, President, Fisher Radio Corporation, Long Island City 1, New York.