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.

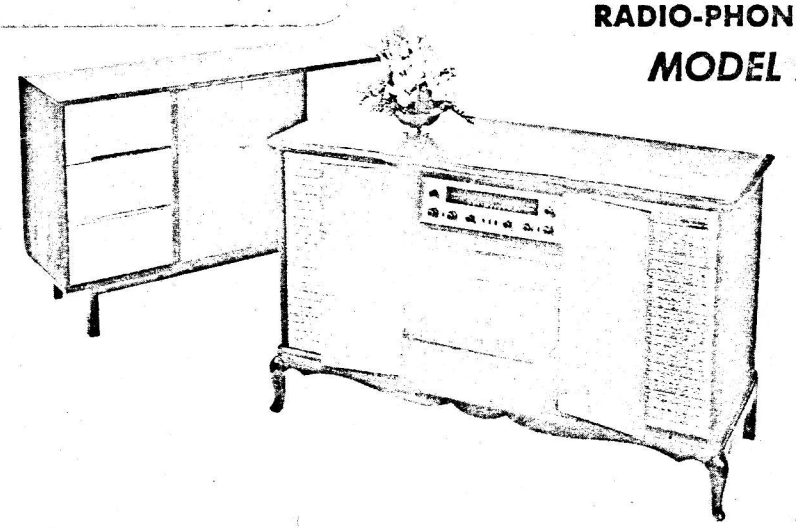
N-50172 222R5M-119

THE PREMIERE

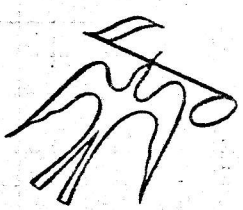
Stereophonic

HIGH FIDELITY
RADIO-PHONOGRAPH

MODEL 220



THE FISHER



STEREOPHONIC

PRICE $1.00

AVERY FISHER
Founder and President,
Fisher Radio Corporation

The Man Behind the Product

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, 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
1959 First high-quality Stereophonic Remote Control System.
1959 First complete Stereophonic FM-AM Receiver (FM-AM tuner, audio control, 40-watt amplifier).

THE FISHER Premiere

Stereophonic

High Fidelity Radio-Phonograph

Model 220

THE FISHER Premiere is a complete stereophonic high-fidelity music reproducing system. Enclosed in its attractive console cabinet is a complete stereophonic radio receiver, a four-speed record changer, and two matched speaker systems.

The stereo receiver chassis is located behind the upper door in the center section of the Premiere cabinet. It provides both monophonic FM and AM radio programs and also permits you to listen to FM-AM stereo broadcasts. The control panel of the receiver regulates the output of the Premiere's entire sound system, including any external equipment which may be played through it.

A Garrard four-speed automatic record changer is mounted behind the lower drawer in the center of the Premiere. The pickup arm on this changer, is equipped with a magnetic cartridge, which uses a diamond needle to assure long record life and minimum record wear. The Space provided between the record changer compartment and the receiver section may be used for storing records or for installing additional sound equipment, such as the FISHER MPX-10 Multiplex Adaptor.

Two identical speaker systems are installed in the compartments on either side of the console, to permit balanced stereophonic listening. Each system consists of a highly efficient low-frequency woofer, a mid-range speaker and a high frequency tweeter, with a cross-over network to assure proper distribution of sound for best speaker utilization.

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 high fidelity system.

Reproduction of the live sound characteristics of directions 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

TABLE 1 - CONTROL SETTING FOR OPERATING THE PREMIERE

Program Source	Input and Output Connections	Set SELECTOR Switch to	Set MONO-STEREO Switch to	Other Required Control Settings
FM Monophonic	No additional connections required.	FM-AM	A (FM)	FM Tuning knob set to desired FM station. For precise tuning use FM MicroRay Tuning Indicator.
AM Monophonic	No additional connections required.	FM-AM	B (AM)	AM Tuning knob set to desired AM station. For precise tuning use AM MicroRay Tuning Indicator.
FM-AM Stereo	No additional connections required.	FM-AM	STEREO (or REV.)	FM and AM Tuning knobs set to respective stereo stations. For precise tuning use FM and AM MicroRay Tuning Indicators. Bandwidth switch to AM BROAD.
FM Multiplex Stereo	MPX OUTPUT to input jack on Multiplex Adaptor. Output jacks on adaptor to MPX INPUT jacks in Channel A and B.	FM-MPX	STEREO (or REV.)	FM Tuning knob to MPX stereo station. For precise tuning use FM MicroRay Tuning Indicator.
FM-FM Stereo	External tuner to Channel B MPX INPUT. Connect jumper between FM OUTPUT and MPX INPUT in Channel A.	FM-MPX	STEREO (or REV.)	FM Tuning knob to station broadcasting Channel A stereo program. For precise tuning, use FM MicroRay Tuning Indicator.
Monophonic 33⅓ or 45 rpm record.	No additional connections required.	PHONO	MONO-PHONO	For exact frequency response, set Bass and Treble Controls to RIAA or LP as required.
Monophonic 78 rpm record played through external phonograph with ceramic cartridge.	Cartridge lead to AUX input in Channel A (or B).	AUX.	A or B depending on input used.	For exact frequency response, set Bass and Treble Controls to 78 Position, as required.
Stereo record.	No additional connections required.	PHONO	STEREO (or REV.)	For exact frequency response, set Bass and Treble Controls to RIAA.
Monophonic tape recorder equipped with monitor facilities.	RCRDR OUTPUT jack on Premiere to input of tape recorder. Recorder output jack to MONITOR INPUT in Channel A or B.	Set to AUX for playback. Set to desired program for recording.	A (or B)	Tape Monitor switch to MONITOR both when monitoring and when playing back.
Monophonic tape recorder without monitor facilities.	RCRDR OUTPUT jack on Premiere to input of tape recorder. Recorder output jack to AUX, MPX or MONITOR INPUT in Channels A or B.	AUX or FM-MPX, depending on input used.	A (or B)	Tape Monitor switch to PLAYBACK if AUX or MPX input is used. Tape Monitor switch to MONITOR if MONITOR input is used.
Monophonic tape deck.	TAPE HEAD inputs in Channel A (or B).	TAPE HEAD	A or B, depending on input used.	Tape Monitor switch to PLAYBACK.
Stereo tape recorder equipped with monitor facilities.	RCRDR OUTPUT jack on Premiere to input of tape recorder. Recorder output jacks to MONITOR INPUTS in Channels A and B.	Set to AUX fro playback. Set to desired program. for recording.	STEREO (or REV.)	Tape Monitor switch to MONITOR both when monitoring and when playing back.
Stereo tape recorder without monitor facilities.	RCRDR OUTPUT jack on Premiere to input of tape recorder. Recorder output jack to AUX, MPX or MONITOR INPUTS in Channels A and B.	AUX or FM-MPX, depending on input used.	STEREO (or REV.)	Tape Monitor switch to PLAYBACK if AUX or MPX inputs are used. Tape Monitor switch to MONITOR it MONITOR inputs are used.
Stereo tape deck.	TAPE HEAD inputs in Channels A and B.	TAPE HEAD	STEREO (or REV.)	Tape Monitor switch in PLAYBACK.

would emanate from the stage. In other words, instruments located at center stage appear to be 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.

It is well to emphasize that stereo is something *added to* high fidelity to form a better music reproducing system, not a substitute for it. A monophonic high fidelity system will actually surpass in performance a stereo system 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, assure you of the best in stereophonic high fidelity instruments.

INSTALLATION

THE FISHER Premiere operates on *AC only*. The AC Power Cord at the back of the instrument must be connected to a line receptacle supplying 105 to 120 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, available from your FISHER Dealer.

The power consumed by the receiver section of the Premiere is 175 watts, and and additional 15 watts is supplied when the record changer is operating. A 3.2-ampere slow-blow fuse is located on the rear panel of the receiver chassis.

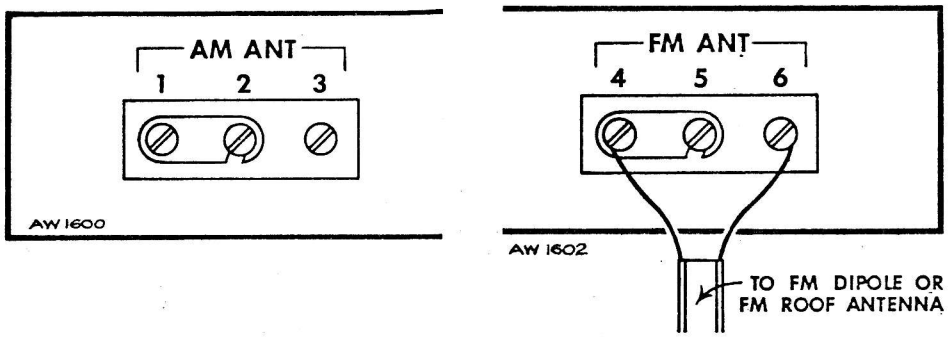


FIG. 1: Connections to antenna terminal strip for FM and AM reception, as wired at factory

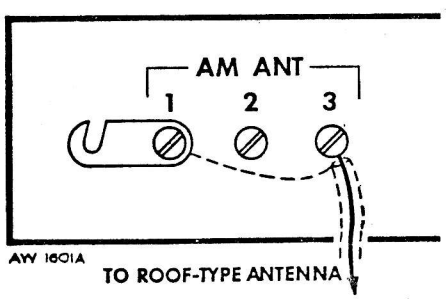


FIG. 2: Terminal connections for installing a roof-type AM antenna. The link between terminals 1 and 2 is detached.

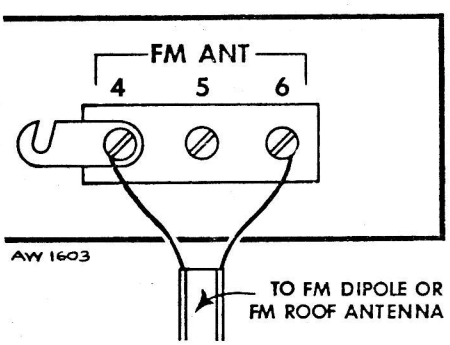


FIG. 3: Connections and position of link for installing an FM antenna in a strong signal area.

record changer . . .

THE FISHER is shipped with a holding screw at the back of the Record Changer drawer to prevent it from opening in transit, plus two screws designated by red and white tags holding the record changer on wood blocks firmly against its mounting shelf. Be sure that the screws and the wood shipping blocks have been removed. This is normally done when the instrument is delivered and set up. 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 and remove the guard with a fingernail.

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

antenna connections . . .

THE FISHER Premiere is equipped with a built-in FM dipole antenna for FM reception and with a ferrite loopstick for AM reception. Figure 1 shows the antenna connections, located at the rear of the receiver chassis, as wired at the factory. These antennas will provide suitable reception in all but extreme fringe areas or where special local conditions may affect the quality of reception.

To reach some weak or distant AM stations, a roof-type antenna may be required in place of the ferrite loop antenna. A roof antenna should be connected to terminal 3 and the link between terminals 1 and 2 detached, as shown in Figure 2. For best reception in noisy areas, a shielded cable should be used as the antenna lead-in. In this case the shield is connected to terminal 1.

The AM antenna is rotatable, and, after the receiver has been turned on, it may be turned *horizontally* to the position which will provide the best average reception across the AM band. Before rotating the antenna, loosen the mounting screw which fastens the loopstick to the chassis. The extent to which the antenna is rotated should not exceed 45 degrees.

In fringe signal areas, an external roof antenna designed for FM reception may be required. A 300-ohm antenna is recommended for this purpose, which should be connected between terminals 4 and 6 in place of the FM dipole originally installed at the factory.

In strong signal areas, however, the dipole is more than sufficient for most purposes. A roof antenna is ordinarily not required, and its use may sometimes overload the sensitive tuner circuits. To prevent any possible overload under these conditions, detach the link between terminals 4 and 5, as shown in Figure 3.

other connections . . .

THE FISHER Premiere is shipped from the factory with all the components properly connected to permit you to listen to monophonic and stereophonic phonograph records, monophonic FM and AM radio programs, and stereophonic FM-AM broadcasts. In addition, connections are provided on the rear panel of the receiver to plug in a tape recorder, multiplex adaptor or other equipment to be operated in conjunction with the Premiere. Instruction for installing and operating auxiliary equipment of this type appear on page 12.

auxiliary receptacle . . .

For your convenience, there is an unused auxiliary receptacle on the rear panel of the receiver chassis. Use this receptacle to provide power to associated equipment, such as a tape recorder used with the Premiere. Make sure that the rated power consumption of the equipment connected does not exceed 345 watts. Power is supplied to the associated equipment as well as to the Premiere when the AC switch on the Volume control is turned on. In this way, your tape recorder or other equipment plugged into the unit is turned on and off with the Premiere power switch.

ac power . . .

After you have made the connections described above, connect the AC power line on the rear panel of the Premiere to a source of AC current. The Premiere will operate between 105 and 120 volts, 50 or 60 cycles. A step-up or step-down transformer is necessary to use the unit at other voltages. Note also that if you have 50-cycle current, your record player and other associated equipment may have to be adapted to operate properly at this frequency.

caution . . .

Now that your connections have been made, you may be tempted to start operating your Premiere, before you have read the rest of the operating instructions. We strongly urge you to resist this temptation. The next section contains important information on operating the controls which is essential for proper use and real enjoyment of the Premiere Radio-Phonograph.

USING THE CONTROLS

All controls and switches required for normal operation of the Premiere are located on the control panel of the receiver chassis. The control panel, shown in Figure 4, has been carefully designed for convenience and ease of operation, and the control functions are clearly marked on the panel. However, to enable you to operate the Premiere effectively, a brief description of the purpose of each control is provided below.

ac off switch . . .

This switch is part of the Volume control located at the lower right side of the control panel. When this switch is turned to its extreme counterclockwise position, a click signifies that the AC power has been turned off.

When the knob is rotated clockwise from the OFF position, AC power is supplied to the Premiere and at the same time also to any associated equipment which may be plugged into the auxiliary receptacles on the rear panel of the receiver chassis. The dial glass is illuminated to show that the power is on.

fm tuning . . .

The FM Tuning knob on the upper left side of the control panel is used to select FM stations in the 88 to 108 megacycle band. Turning this knob moves the pointer across the FM dial scale. Accurate tuning is achieved by turning the FM Tuning knob until the dial pointer is at the approximate frequency of the FM station desired, then tuning in with the MicroRay Tuning Indicator.

fm micro-ray tuning indicator . . .

The FM MicroRay Tuning Indicator located behind the dial glass next to the FM Tuning knob, is a bright bar of light divided into two sections by a small, clearly defined, dark area. When you turn the tuning knob to the vicinity of an FM station, the gap between the two sections of the bar of light becomes smaller. You are tuned to the exact center of the channel when you have made the gap in the bar of light as small as possible. This point has been reached when turning the knob in either direction widens the gap.

am tuning . . .

The AM Tuning knob, on the upper right side of the control panel is used to select AM stations in the 550 to 1600 kilocycle standard broadcast band. Turning this knob moves the pointer across the AM dial scale, and also operates the AM MicroRay Tuning Indicator. Set the dial pointer to the approximate frequency of the AM station desired, then tune in precisely with the MicroRay Tuning Indicator.

am micro-ray tuning indicator . . .

The AM MicroRay Tuning Indicator is located behind the dial glass next to the AM tuning knob. It permits precise tuning of AM stations in the same manner as the FM MicroRay described above.

am bandwidth switch . . .

The AM Bandwidth switch, located in the center of the front panel, has two positions marked AM BROAD and AM SHARP. When there is no interference from neighboring stations, the bandwidth switch should be set to BROAD position which provides the optimum in bandwidth and the best tonal quality. This is especially important when listening to FM-AM stereo broadcasts in which the AM tone qualities should be as nearly equal to FM as possible. For maximum selectivity and minimum interference from adjacent stations, switch the AM Selector to SHARP position.

logging scale . . .

In addition to the scales for locating FM and AM stations, the dial glass on the control panel includes a Logging Scale numbered from 0 to 100. With its aid your favorite stations can be tuned in more easily, since only a two-digit number need be remembered. The scale can be used for both FM and AM.

selector switch . . .

The Selector switch in the center of the control panel permits you to choose the program material which is played through the Premiere. The five positions of this switch and their respective functions are as follows:

FM-AM: Use this position to listen to monophonic FM or AM radio programs and to FM-AM stereo broadcasts.

PHONO: Use this position for playing stereophonic and monophonic records. Note, however, that 78-rpm records must *not* be played

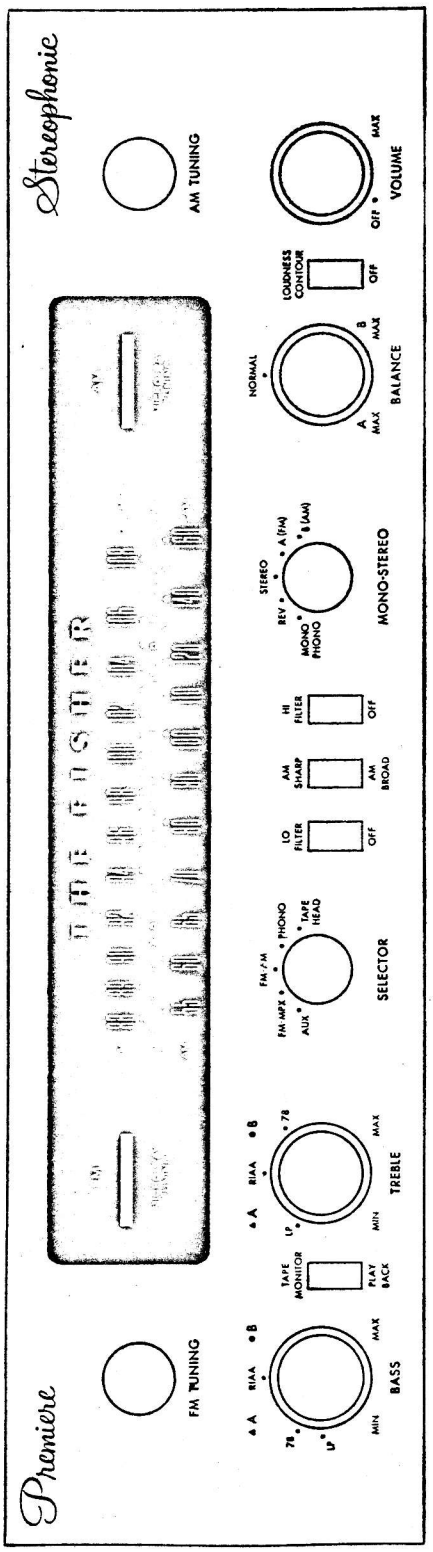


FIG. 4: Control panel of Premiere located at the front of the receiver chassis.

with the stereo cardridge in your record changer. It is necessary to install a supplementary cartridge with a 3-mil stylus for use with these records.

FM-MPX: This position is used to permit you to listen to FM-FM or FM-multiplex stereo broadcasts. To hear these programs, however, an external FM tuner or an FM multiplex adaptor must be connected to the Premiere. These connections are described on page 13.

AUX: Set the Selector to this position if you wish to listen to the output of a tape recorder, an external record player with a *ceramic* cartridge, or any other high-level program source which you may want to connect to the Premiere. See page 12, for information making these connections.

TAPE HEAD: This position is used for playing back material from a tape deck which has been connected to the TAPE HEAD input of the Futura as described on page 12. Do not use this position with a tape recorder which contains equalization and preamplification facilities.

mono-stereo switch . . .

The Mono-Stereo switch on the control panel selects the outputs heard in the speaker systems. Its five positions which provide the desired stereo or monophonic output in conjunction with the program you have selected, are as follows:

(A) FM: Use this position to listen to monophonic FM radio broadcasts. Be sure that the Selector switch is in the FM-AM position. The program will be heard in both speaker systems of the Premiere, producing a panoramic effect. This position is also used to play back an external monophonic program source, such as a tape recorder, which has been plugged into a Channel A input only. The output will be heard in both speakers.

B (AM): Set the switch to this position to listen to AM radio broadcasts which will be heard in both speaker systems. Be sure that the Selector switch is in the FM-AM position. Use this position also to listen to a monophonic program source which has been plugged into a Channel B input only.

MONO PHONO: This position permits you to play a monophonic record, whose output will be heard in both speakers. When the switch is in this position both phono stages operate in parallel to eliminate vertical rumble from your record changer.

STEREO: This position is normally used for listening to stereo recordings and stereo broad-

casts. With the switch in this position, the spatial arrangement of the orchestra is reproduced in your speakers as it was originally recorded or broadcast, with the strings heard predominantly at the left and the brass to your right. If you have an external stereo input connected, the Channel A input will be heard in the speakers to your left, and the Channel B input in the right-hand speakers.

REV: This position reverses the normal stereo listening arrangement by feeding the FM or Channel A input to the speakers on the right and the AM or Channel B input to the speakers on the left side. This position will normally be used *only* if a tape recording or other stereo input has been reversed channelwise and you wish to restore the original spatial arrangement of the orchestra.

audio controls . . .

There are six audio controls on the front panel of the Premiere, which permit you to vary the volume and tonal characteristics of program material. The Bass and Treble control knobs provide individual tone regulation in each channel, if desired, to watch the acoustic conditions of your living room. The other controls are ganged to provide identical characteristics in both output channels for convenience in operating your sound system.

VOLUME: This is the master volume control which controls the level simultaneously at both speakers. Turning the knob away from OFF to MAX position, increases the sound output from both speaker systems.

BASS: The Bass Tone Control is a dual knob which permits you to regulate the intensities of the low-frequency or bass tones in either the FM (A) channel A or in the FM (B) Channel B, or in both channels simultaneously. The smaller knob, marked with a gold triangle, controls the bass response in Channel A. The larger knob, marked with a gold dot, regulates the bass tone in Channel B.

The knobs are friction loaded, so that when one is turned the other turns with it, thereby permitting simultaneous contol of both channels. If individual control of the bass is desired in Channel A, hold the large Channel B knob with one hand and rotate the small Channel A knob to the desired position with the other hand. Reverse the procedure to regulate the bass tones in Channel B.

The three positions marked on the Bass control indicate the recommended points at which the control should be set to assure correct bass tones for the various phono equalizations used with different types of records. Use the RIAA position for all stereophonic and new monophonic records. This also represents the "normal" position when listening to FM and AM radio.

Set switch to LP position for long-playing records produced before 1955. The 78 position is for playing old-type shellac records which were cut at 78 rpm. Avoid extreme settings of the Bass control at high volume as this may cause distortion and rumble at the speakers.

TREBLE: The Treble Tone Control is operated by a dual-knob, marked with a triangle for Channel A (FM) and with a dot for Channel B (FM). This dual control is used to regulate the treble response in each channel in the same manner as described above for the Bass Tone Control.

The Treble tone control alters the intensity of the high-frequency treble tones. The knob is turned to the right towards MAX to provide greater treble intensity, and to the left towards MIN for less treble. There are three positions on the Treble control which indicate the positions to which the control should be set to provide correct treble equalization for RIAA, LP or 78 rpm records. If uniform response is desired, set this switch to RIAA.

LOUDNESS CONTOUR: As the relative volume of sound is reduced, our natural hearing sensitivity drops off more rapidly in the bass and upper treble regions than it does in the middle frequency range. The Loudness Contour switch permits you to listen to program material at low levels without being deprived of the high and low frequencies which would otherwise be lost. Setting this switch to LOUDNESS CONTOUR automatically increases the amount of loudness compensation as you lower the Volume control and decreases this compensation as you increase the volume.

LO FILTER: The Low Filter switch is used to eliminate possible rumble or other low-frequency disturbances. Turn this switch to LO FILTER position if you encounter rumble or other undesirable low frequencies when playing your record player or tape deck.

HI FILTER: Set this switch to HI FILTER position to eliminate needle scratch or other unwanted high-frequency sounds originating in your phonograph records. This position may also be used to suppress whistling and other high-frequency interference which may be present in some AM broadcasts.

balance . . .

The Balance control, provides the correct balance between the speaker systems in the Premiere for listening to stereophonic programs. The proper setting of the Balance

control depends on the acoustics of the room, the point where the music is heard, and sometimes on the program material. When the control is set to the NORMAL position, the output level of the two speaker systems is approximately equal. Turning the Control knob from NORMAL toward the A MAX position increases the volume of the A speaker system to your left and, at the same time, reduces the level in the speakers to your right. Rotating the control in the opposite direction toward B MAX raises the volume of the right or B speaker and lowers that of the left speaker. Set the Balance control to the position which provides an equal output from the speakers at the point where the program is heard.

OPERATING THE FISHER PREMIERE

The Premiere is shipped from the factory completely equipped and wired to play both monophonic and stereophonic disc recordings and to receive standard FM, standard AM and FM-AM stereo broadcasts. This section tells you how to set the controls, which have been previously described, to listen to each of these programs.

In addition, both monophonic and stereo tape recordings, FM multiplex broadcasts, and other program sources may be played through the Premiere's sound system. Such programs require the use of auxiliary equipment which is plugged into the rear panel of the receiver chassis. Instructions for connecting and operating auxiliary equipment will be found on page 12.

For your convenience in operating the Premiere, a check list for setting each of the significant controls for various types of programs is shown in Table I, on page 4. Controls which are not listed in these tables may be set to suit individual listening conditions. The settings for monophonic operation are shown first, followed by those for stereo programs. The required connections for each type of operation are also included where necessary. Before operating any of the controls, make certain that these connections have been properly made.

standard fm broadcasts . . .

1 — Turn the AC switch on by turning the Volume control away from the OFF position. The panel lights should go on and illuminate the dial glass.

2 — Set the Selector switch to FM-AM position.

3 — Set the Mono-Stereo switch to A (FM) position.

4 — Tune to the desired FM station on the 88-108 megacycle scale, using the FM Tuning knob and the FM Micro-Ray Tuning Indicator.

5 — Set the audio controls to provide the desired volume and tone in your listening area.

standard am broadcasts . . .

1 — Turn the power on by turning the Volume control away from the OFF position.

2 — Set the Selector switch to FM-AM position.

3 — Set the Mono-Stereo switch to B (AM) position.

4 — Tune to the desired AM station on the 550-1600 kilocycle scale, using the AM Tuning knob and the AM MicroRay Indicator.

5 — Set the AM Bandwidth switch to AM BROAD position. If reception is noisy or interference is heard, switch to AM SHARP position.

6 — Set the audio controls to provide desired volume and tone.

fm-am stereo broadcasts . . .

1 — Turn the power on by means of the Volume control knob.

2 — Set the Selector switch to FM-AM position. Do not use the SHARP position unless local reception conditions are such that less band width is required.

3 — Set the Mono-Stereo switch to STEREO position. REVERSE position permits you to hear the FM program in the speakers to your right and the AM speakers in the left-hand speakers. This position is normally used only to reestablish the correct spatial relationship when play-

ing a recording which has been made with the channels reversed.

4 — Tune to the respective frequencies of the FM and AM stations which are transmitting the stereo program, using the FM and AM Tuning knobs and the corresponding MicroRay Indicators.

5 — Set the AM Bandwidth switch to AM BROAD position. Do not use the SHARP position unless local reception conditions are such that less band width is required.

6 — Set the audio controls to provide the desired volume and tone, and set the Balance control for best stereophonic listening.

monophonic recordings . . .

1 — Turn the Volume control knob so that power is applied to the set.

2 — Set the Selector switch to PHONO position.

3 — Set the Mono-Stereo switch to MONO-PHONO position.

4 — Set the Bass and Treble tone controls for both channels to RIAA position, if the monophonic record you are playing is a new record which has been made with this equalization. For 33-1/3 and 45 rpm records made before 1955, use the LP position.

5 — Place the record changer in operation in accordance with the separate instruction book furnished. To obtain the best sound reproduction, it is recommended that not more than three to five records be stacked on the changer.

6 — Set the remaining audio controls to provide the desired volume, loudness control and filtering.

Warning! The stereo cartridge supplied with your changer must *not* be used to play 78 rpm records. If you wish to play these old shellac records, it will be necessary to install a second plug-in cartridge, which is available from your Fisher dealer. You may also connect an external record player with a ceramic cartridge to the Premiere, as described on page 13. To provide proper equalization with these records, set the tone controls to 78 position.

stereophonic recordings . . .

1 — Turn the Volume control knob so that power is applied.

2 — Set the Selector switch to PHONO position.

3 — Set the Mono-Stereo switch to STEREO position. Use the REVERSE position if you wish to transpose the output channels.

4 — Set the Bass and Treble tone controls to RIAA positions to provide normal equalization in each channel. If you wish to vary the tone in either channel, set the dual Bass and Treble knobs as required.

5 — Place the record changer in operation in accordance with the operating instructions furnished for the changer. Do not stack more than three to five records on the spindle to insure good listening results.

6 — Set the remaining audio controls as required and adjust the Balance control to provide the best stereophonic effect.

INSTALLING AND OPERATING ASSOCIATED EQUIPMENT

In addition to providing FM and AM broadcasts and playing both stereophonic and monophonic phonograph records, external sound sources can be connected to the Premiere to provide other high fidelity program material. Associated equipment which can be used with the Premiere include a tape recorder or tape deck, an adaptor for FM multiplex reception, an external FM tuner for FM-FM stereo broadcasts, and an external record player with a ceramic cartridge.

Instructions for connecting and operating these auxiliary sound sources are contained below. All input and output connections are made to the jack bracket located on the rear panel of the receiver chassis, as shown in Figure 5.

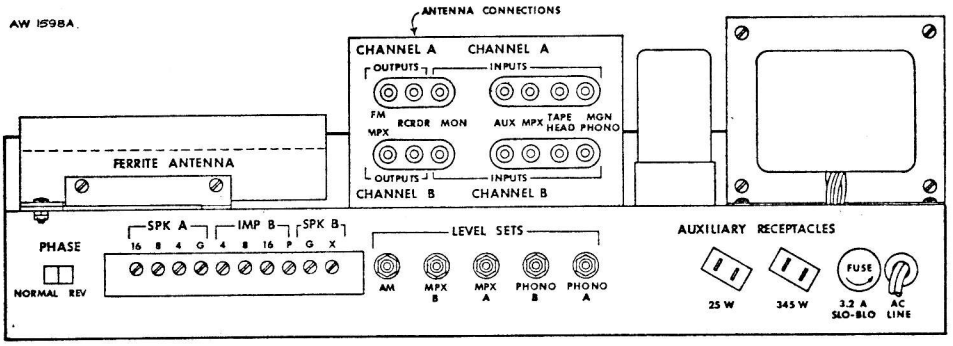


FIG. 5: Rear panel of the receiver chassis showing location of jack bracket for making connections to external equipment.

tape recorder . . .

A standard tape recorder, either stereophonic or monophonic, can be used for two purposes with the Premiere. First, it can be used to record on tape AM or FM broadcasts or phonograph records being played through the Premiere sound system. Secondly, it will play back through the Premiere sound system program material which has previously been recorded on magnetic tape. Permanent connections between the tape recorder and the rear panel of the receiver chassis to permit both functions to be carried out may be made as indicated below.

If your recorder utilizes separate record and playback heads, connect a cable between the RCRDR OUTPUT jack on the Premiere and the input or record jack on your tape recorder. Connect another cable between the output or playback jack on the recorder and the MONITOR INPUT jack on the Premiere. If you are using a *stereo* recorder, make these connections to *both* the Channel A and Channel B RCRDR and MONITOR jacks. If a *monophonic* recorder is being used, make these connections to *either* Channel A or Channel B. These connections will permit you not only to record and play back as described above, but also to monitor, or play back, material as you record it.

If your recorder utilizes a common head for both recording and playback, the output cable from the tape recorder should be connected to the AUX input on the Premiere. If the AUX input is already occupied by another program source, you may use the MONITOR or MPX input. Another cable is connected between the RCRDR OUTPUT jack on the Premiere and the input or record jack on your tape recorder. If you are using a *stereo* recorder, make these connections in *both* the A and B channels. With a *monophonic* recorder, connect *either* A or B. Using the AUX input provides a stronger playback signal

Set the Selector switch on the Premiere to PHONO, or FM-AM depending on which program source you are recording on magnetic tape. For playing back taped programs, set the Selector to AUX or FM-MPX depending on input connections.

If you are using a monophonic tape recorder set the Mono-stereo switch on the Premiere control panel to A or B, depending on whether the tape recorder has been connected to the A or B channel. A stereo recorder should be set to STEREO, or to REVERSE if you wish to reverse the tape output channels.

The tape monitor switch, located on the front panel, has two positions, MONITOR and PLAYBACK. If the tape recorder has been connected to the Monitor Inputs of the Premiere, set this switch to MONITOR. This will permit you to hear the program as you have recorded it. To play back program material from a tape recorder which is not connected to the Monitor Inputs, set the Tape Monitor switch to PLAYBACK.

Set the volume, tone and balance controls on the Premiere as required. Operate the tape recorder in accordance with the instructions furnished with it.

tape deck . . .

A tape deck is a tape transport mechanism without a preamplifier. It is connected to a sound system to provide playback from recorded tapes. If you have a stereo tape deck, connect the A and B output cables to the respective inputs marked TAPE HEAD in both Channel A and Channel B. A monophonic tape deck may be connected to either the Channel A or Channel B TAPE HEAD input.

The TAPE HEAD inputs provide the preamplification and equalization required when connected directly to tape heads. *Do not use these inputs for standard tape recorders in which*

playback preamplifiers are incorporated. These recorders should be connected as indicated under Tape Recorder.

Set the Selector switch on the Premiere to TAPE HEAD. Turn the Mono-Stereo switch to STEREO if you are using a stereo tape deck. With a monophonic tape deck, set the Mono-Stereo switch to A or B position, depending on the Channel to which the tape deck has been connected. Turn the Tape Monitor switch to PLAYBACK.

Set the volume, tone and balance controls as required. For other information on operating the tape deck, see the instructions furnished with it.

multiplex adaptor . . .

A multiplex adaptor, such as the FISHER model MPX-10, is required to receive multiplex stereocasts. The adaptor can be permanently connected to the Premiere receiver chassis to hear these broadcasts whenever they are available. Connect a cable from the MPX OUTPUT jack on the rear panel of the receiver to the appropriate input jack on your multiplex adaptor. Then connect the Channel A and Channel B OUTPUT jacks of the adaptor to the corresponding MPX INPUT jacks of the Premiere. See the operating instructions furnished with your multiplex adaptor for additional inormation.

Set the Selector switch on the Premiere control panel to FM-MPX. The Mono-Stereo switch should be set to STEREO. Set the Tuning knob to the FM station which is transmitting the stereo broadcast. The volume and tone controls on the Futura are set as required. The separation and other controls on the adaptor should be operated as described in the instructions furnished with the multiplex adaptor.

The Fisher MPX-10 Multiplex Adaptor can be readily fitted into the record storage compartment in the Premiere cabinet.

fm-fm stereo . . .

This type of stereo broadcast, available in some areas, requires an external FM or FM-AM tuner in addition to the receiver in the Premiere. Connect this external tuner to the Channel B MPX INPUT jack on the rear panel of the Premiere's receiver chassis. Also connect a jumper between the FM OUTPUT jack and the Channel A MPX INPUT jack.

Caution! The shielded cable leads from the FM OUTPUT and MPX OUTPUT jacks should be kept as far away as possible from the FM antenna, antenna lead-in or antenna terminals.

The receiver in the Premiere should supply the left or A channel of the stereo broadcast, and the external tuner should provide the B channel. It will be necessary for you to ascertain from your newspaper which FM station is broadcasting the respective channels and to set your tuners accordingly.

Set the Selector switch on the Premiere control panel to FM-MPX, and the Mono-Stereo switch to STEREO. The tone and balance controls on the Premiere control panel should be set as required.

external record player . . .

A second record player with a *ceramic* cartridge may be connected to the Premiere to provide another phonograph source. If the external record player is equipped with a 3-mil stylus, you can play 78 rpm records without changing the cartridge in the Premiere record changer. The external record player may be equipped with either a monophonic or a stereophonic cartridge.

If the external record player or changer you are using has a *ceramic stereo* cartridge, connect the leads from the cartridge to the inputs on the Premiere jack bracket marked AUX. Connect both Channel A and Channel B. A *monophonic ceramic* cartridge may be connected to the AUX input in either channel. The input impedance of the AUX jack is 2 megohms and is, therefore, highly suitable for ceramic cartridges.

Note! An external record player with a *magnetic* cartridge *must not* be connected to the AUX inputs. If you wish to use an external player of this type, it can only be plugged into the inputs marked MGN PHONO, into which the Premiere's record changer is normally plugged.

MAINTENANCE AND ADJUSTMENTS

There are five Level Sets and a Phase Reversing switch located on the rear panel of the Premiere receiver chassis (see Figure 5). These controls may require some adjustment when the console is first installed, but they are not normally used in subsequent operation.

level sets . . .

There are five Level Sets marked Phono A, Phono B, MPX A, MPX B, and AM. The Phono and the AM Level sets have been adjusted at the factory to provide a uniform output with various program sources which are standardized with the unvarying FM output. If a tape recorder or multiplex adaptor has been connected to the Premiere, the MPX Level Sets will probably require adjustment from the Maximum position in which they are shipped from the factory. Turn the MPX Level set counterclockwise until the volume of the tape recorder or MPX stereo program is equal to the other levels.

Note! The Phono level set can also be used to adjust the level of tape deck inputs.

phase reversing switch . . .

The Phase Reversing switch provides a means of compensating for improperly phased speakers. Since the speaker systems in the Premiere have been properly phased at the factory, this switch is not normally used.

If the speakers are out of phase, it is necessary to reverse the leads to one of the speakers. This is accomplished by the Phase Reversing switch which electrically reverses the leads to Speaker B. Set this switch to REVERSE position.

tube location and functions . . .

A tube location diagram appears on the model label of the Premiere, located on the rear of the cabinet. The tube functions of the receiver chassis are as follows:

FM SECTION: V1-Cascode RF Stage (ECC85/6AQ8); V2-Mixer and Oscillator (ECC85/6AQ8); V3, V4- IF Amplifier (6AU6); V5-Limiter and IF Amplifier (6AU6); V6-MicroRay Tuning Indicator (EM84/6FG6).

AM SECTION: V7-Tuned RF Amplifier (6BJ6); V8-Mixer, Oscillator and IF Amplifier (ECH81/6AJ8); V9- IF Amplifier and Demodulator (EBF89); V10-MicroRay Tuning Indicator (EM84/6FG6).

POWER SUPPLY: V11-Rectifier for Amplifiers (GZ34/5AR4); V12-Rectifier for Tuners (EZ80/6V4).

CHANNEL B AMPLIFIER: V13-Tone control amplifier (7025/ECC83/12AX7); V14-Driver and Phase Inverter (7199); V15, V16-Push-Pull Power Amplifier (7189); V17-Phono-Tape Preamplifier (7025/ECC83/12AX7).

CHANNEL A AMPLIFIER: V18-Phono-Tape Preamplifier (7025/ECC83/12AX7); V19-Tone-Control Amplifier (7025/ECC83/12AX7); V20-Driver and Phase Inverter (7199); V21, 22-Push-pull Power Amplifier (7189).

There is also a matched pair of crystal diodes in the FM detector stage located on the top of the FM discriminator transformer.

replacing panel lights . . .

When the AC power is turned on, two panel lights will go on to illuminate the dial glass of the Premiere control panel. These lamps are located behind the front panel on either side of the dial glass, and are not visible. To replace these bulbs, it is necessary to remove the front panel, first disconnecting the AC cord as a safety precaution.

The front panel is held in place by means of four hex nuts located behind the Volume, Bass, FM Tuning and Am Tuning control knobs. Remove the knobs and hex nuts and lift off the front panel. The bulbs are held in place by spring clips and may be removed with the fingers or pried loose, if necessary, with a screwdriver. Replace with a new lamp, available from your FISHER dealer as Part No. 150082-3.

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.

NOTE

Shortly after the printing of this booklet, the PREMIERE was equipped with an added feature to increase its versatility. A Center Channel Output jack is now included on the rear panel of the Radio chassis. By connecting an additional monophonic amplifier to this jack and connecting a loudspeaker to the amplifier, you can listen to programs in an adjoining room or some other remote location. Although the sound will be monophonic, it will contain the composite stereo signals.

The additional amplifier should be equipped with a volume control, if possible, to permit independent adjustment of the sound on the extension speaker. The cable from the Center Channel Output jack to the amplifier should be the standard audio coaxial type and can be up to 100 feet in length. The cable from the amplifier to the speaker can be 100 feet or more in length, depending upon the type of amplifier output.

N765-104 SUP