

OWNER'S MANUAL

Stereo Control Center
Model SC7

Nocturne

harman kardon

Congratulations!

Once again, HARMAN-KARDON has taken a creative leap forward, providing engineering leadership in solid-state design. The new Nocturne SC7 Stereo Control Center combines superb styling and component-quality performance.

Your HARMAN-KARDON control center represents the best in electronic circuitry, employing advanced integrated "micro-circuits" to assure maximum reliability and unsurpassed performance. To insure a more perfect music system, we have carefully selected one of the finest automatic turntables and magnetic cartridges available.

The SC7 is a complete stereophonic control center equipped with a preamplifier, powerful dual-channel amplifier, and a superb FM and FM stereo tuner combined to give crystal-clear reception of radio broadcasts. The new R. C. A. Mosfet

transistor front end has been incorporated in your unit to provide undistorted FM reception over great distances without noise or fading. The AM section is completely isolated from the FM tuner, employing a separate tuning condenser, I. F. strip, and a specially designed Mosfet front end, thus assuring ultra-sensitive AM reception.

The Nocturne SC7 Stereo Control Center, utilizing cool-operating output transistors, may be placed virtually anywhere without the need for special installation precautions.

We urge you to spend just a few moments to read this manual. We have outlined the proper installation instructions, simply and clearly, which, if followed, will assure you many rewarding years of listening pleasure.

WARRANTY POLICY

We urge you to fill in your warranty card and mail it to the factory without delay to protect your rights under warranty. The HARMAN-KARDON warranty is not valid unless we have your card on file.

WARRANTY

We warrant each unit to be free from defects in material and workmanship under normal use and service, and in accordance with the conditions herein below set forth, for a period of ninety (90) days for the automatic record changer and for a period of two (2) years for the remainder of your Stereophonic control center, from the date of delivery to the original purchaser.

Should a defect occur within the said two (2) years, and provided that the unit is returned to us with transportation prepaid and which our examination shall disclose to our satisfaction to have been thus defective, we will:

1. During the first ninety (90) days from date of sale at our option, either replace or repair and install any defective parts, free of charge.

SERVICE POLICY

Harman-Kardon has established a special consumer division to answer all questions pertinent to the installation and operation of your unit. Please feel free to write us at any time and we will endeavor to offer prompt and complete advice.

If your problem cannot be resolved through our combined efforts we may wish to refer you to one of our authorized warranty stations. The unit must be shipped via Railway Express, Prepaid to the station designated, accompanied by a brief note describing the exact nature of the difficulty. *Under no circumstances should the set be shipped directly to the factory without prior authorization!*

INSTALLATION PROCEDURE

Complete instructions for the operation and maintenance of this automatic turntable will be found in the enclosed Dual Operation manual.

CARTRIDGE

The cartridge supplied with your automatic turntable has been chosen to give the highest quality performance when operating with your CONTROL CENTER.

Under normal conditions the stylus used in this cartridge will last for a number of years before it has to be replaced. Abnormal use, however, may damage the stylus. It is therefore recommended that you have the stylus checked annually at your dealer or whenever you suspect it may have been damaged.

The replacement stylus for this cartridge is available at your dealer.

VENTILATION

The ultimate in solid state technology has been devoted to creating your Harman Kardon music system. Coupled with the latest in transistor engineering techniques are years of experience that Harman Kardon maintains as the leader in solid state.

2. After ninety (90) days, at our option, either replace or repair all defective parts of the automatic record changer, charging for both parts and labor.

3. Neither items 1 or 2 of this warranty includes any obligation as to replacement of the stylus or adjustments of tracking force, tone arm height or dropping position of the automatic record changer.

4. After ninety (90) days and for the balance of the two (2) years, at our option, either replace or repair all defective parts of the SC7 control center, charging only for labor.

This warranty is not applicable to any instrument which shall have been repaired or altered in any way so as in our judgment to affect its stability or reliability nor which has been subject to neglect, misuse, abuse, negligence or accident nor which has had the serial number altered, effaced or removed. Neither shall this warranty apply to any instrument which has been connected otherwise than in accordance with instructions furnished by us.

This warranty is expressly in lieu of all other warranties, expressed or implied, and of all other obligations or liability on our part, and we neither assume nor authorize any representative or other person to assume for us any other liability in connection with the sale of this instrument.

Careful design enables the all transistor Model SC7 Stereo Component Control Center to operate at a very low temperature. To maintain proper ventilation only (1) one inch of air space should be provided from the rear of the cabinet to the wall when installing your system.

POWER REQUIREMENTS

Connect the AC line cord into any outlet furnishing 117 volts, 50 or 60 cycle AC current. The voltage may vary between 105 and 125 volts. An auxiliary AC power outlet is provided on the rear panel of your receiver. Any accessory equipment (tape recorder, AM tuner, TV set, etc.) may be connected to this receptacle and will be controlled by the ON OFF switch on the front panel of your receiver.

Your SC7 is equipped with a unique feature which shuts off the receiver after the last record has played. This is accomplished by a special switching control within the record player and is operative in both the phono mono or phono stereo positions, and in either the manual or automatic mode.

FUSES

Your component system uses three fuses to protect its circuits. The main fuse labeled FUSE 1.5A-3AG is used to protect the entire system while the other two fuses labeled LEFT 2A-3AG and RIGHT 2A-3AG are used to protect the output power transistors. In the event of fuse failure replace ONLY with the same type used. Replacing with a fuse of a higher rating will not protect the instrument and may result in severe damage.

Line Fuse—1.5 Amp—3AG

LEFT Channel Fuse—2 Amp—3AG

RIGHT Channel Fuse—2 Amp—3AG

SPEAKER CONNECTIONS

IMPORTANT: Only FOUR speakers (two stereo systems) may be connected to this unit.

We have provided two types of speaker connections—the screw type and the phono type—for your convenience in connecting any model speaker to your SC7.

If your speakers have screw type terminals, use the screw-type terminal strips at the rear of your unit for connecting them to your music system.

If you have HARMAN-KARDON speakers, such as the Model HK30 or HK40, simply plug them into the R. C. A. phono plugs located on the rear panel of your unit. A 24-foot speaker cable is supplied with each HARMAN-KARDON speaker with a phono plug connector at each end for this easy plug-in connection to your unit. (Please refer to the rear panel diagram indicating the location of these two types of speaker connections.)

SPEAKER PHASING

When more than one speaker is used in any music reproducing system the speakers must be connected in a manner to work together rather than work out of phase. If one speaker is pushing air out while the other is moving in the opposite direction this will result in diminishing bass response. Checking for proper phase and correcting if necessary is quite simple.

1. Place a stereophonic recording on your record player.
2. Place the Function Selector switch in the Phono Mono position for monophonic playback.
3. Play the record. The sound should emerge from approximately the center area between the two speakers.
4. While the record is playing place the Function Selector switch in the Phono Stereo position.
5. The sound should now move across the wall of the room and should appear to come from both speakers as well as the center.
6. If your speakers are out of phase, the sound source will not pinpoint itself between the two speakers when the Function Selector switch is in the Phono Mono position. Instead it will appear to come from both sides.

If the speakers are out of phase, turn off the receiver and disconnect both leads from either the left or right speaker and reverse them. Your system will now be in phase.

This completes your speaker connections. Your receiver is a solid state device which does not contain audio output transformers. It is therefore not necessary to match the impedance of your speakers to the receiver. Your unit will perform perfectly with any speaker which has an impedance of 4, 8 or 16 ohms.

SPEAKER SYSTEM SELECTOR SWITCHES

Your receiver has been provided with 2 independent speaker selector switches.

If your receiver is connected with 1 set of speakers (1 system), the system 1 speaker selector switch must be in the "on" position. If you have 2 sets of speakers (2 systems), the system 1 and system 2 speaker selector switches must both be in the "on" position for both systems to operate.

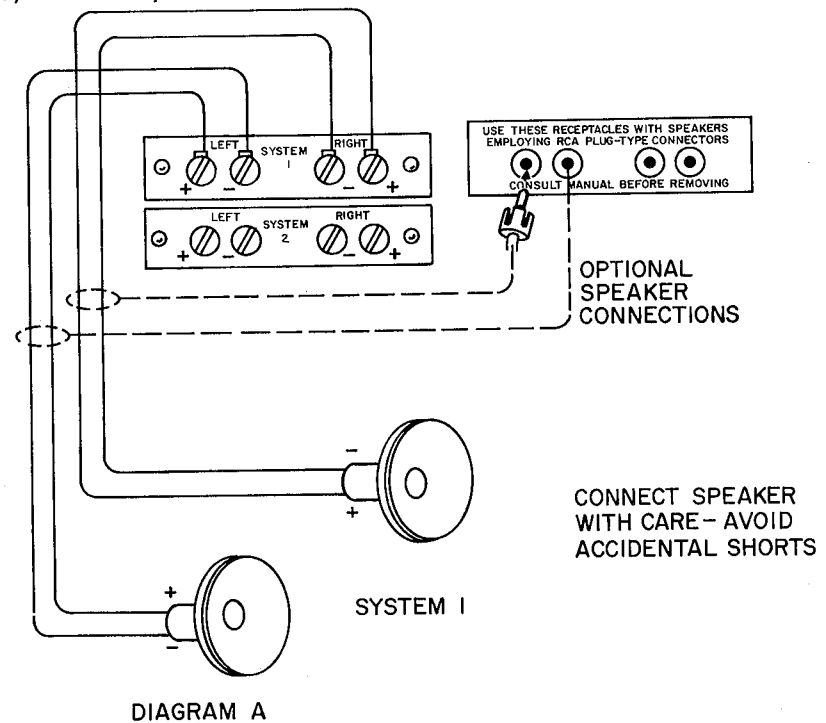
Should you desire to listen to stereo-headphone alone, the speakers (either one or both systems can be turned off at your discretion.)

CONNECTING THE SPEAKERS FOR STEREO OPERATION (1 SYSTEM)

Your two speakers should be identical, if possible, to obtain optimum results. Experts agree that a perfectly matched system offers the best stereophonic reproduction. The speakers should be placed along the same wall approximately 8 to 10 feet apart depending upon room size and furniture placement. It may be necessary to experiment with speaker placement until best results are obtained.

Use any type of wire to connect your speakers to your receiver. Lamp cord "zip cord" is excellent and may be easily dressed around the molding for an inconspicuous and neat installation. Do not drive the staples or tacks through the center of the wire for this may short out the two sections and will decrease the overall volume or short out the speakers entirely. It is permissible to use approximately 50 feet of speaker connecting wire for each speaker without loss of volume. **CONNECT SPEAKERS WITH CARE. AVOID SHORTS—THIS SYSTEM HAS BEEN DESIGNED TO PREVENT DAMAGE FROM ACCIDENTAL SHORTING; HOWEVER, REPETITIVE SHORTING CAN DAMAGE TRANSISTORS.**

1. Connect one length of lamp cord to the left speaker. (This is the speaker on your left as you face the speakers.)
2. Attach the other end of the lamp cord to the terminals marked SYSTEM 1 LEFT located on the rear of the receiver.
3. Similarly connect another length of lamp cord to your right speaker.
4. Attach the other end of the lamp cord to the terminals marked SYSTEM 1 RIGHT.
5. Your receiver is now connected for 1 system stereo operation and is operative when the speaker selector switch on the front panel is in the Speaker System 1 ON position.



CONNECTING THE SPEAKERS FOR STEREO OPERATION (2 SYSTEMS)

1. Connect all 4 speakers for your two system operation as shown in Diagram B.

2. You may now select either system 1, system 1 and 2, or system 2 by the use of the speaker selector switch located on the left side of the front panel of your Nocturne receiver.

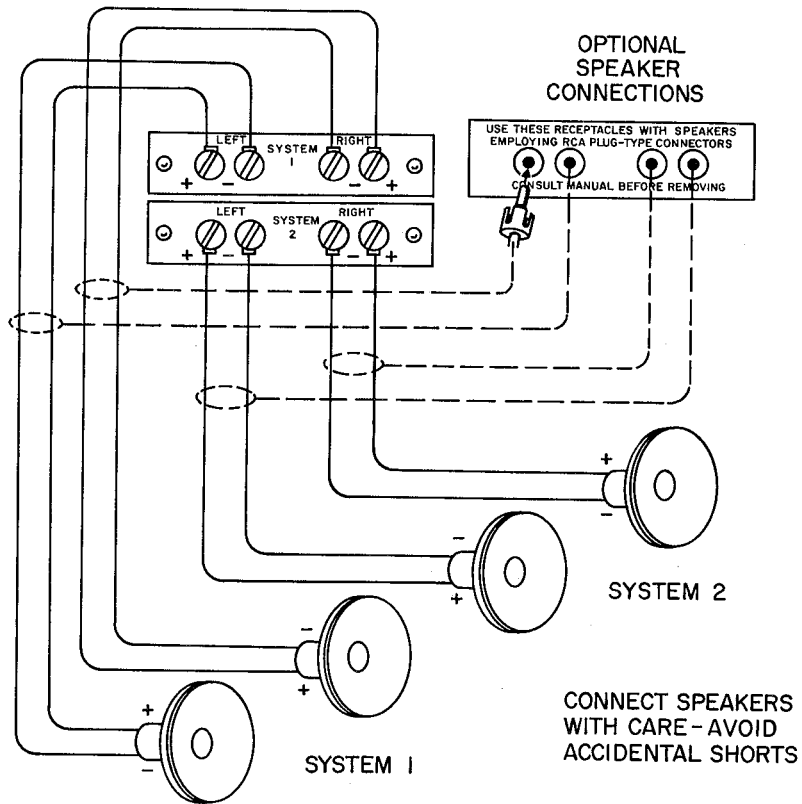


DIAGRAM B

CONNECTING THE SPEAKERS FOR MONOPHONIC OPERATION (1 SYSTEM)

If your SC7 is to be used monophonically and stereo is to be added at a later date, it is essential that both speaker output terminals are terminated into a proper load to prevent damage to the output stage of the receiver. Refer to Diagram C for proper installation of the loading resistor.

At no time should the output terminals be paralleled for monophonic operation!

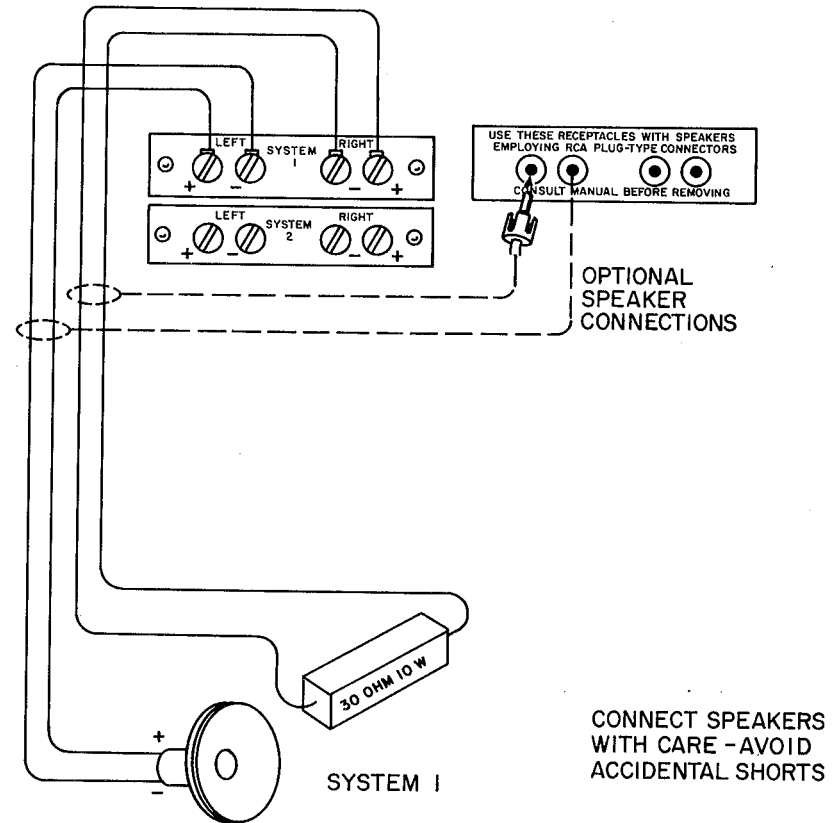


DIAGRAM C

THIS IS THE ONLY CORRECT METHOD FOR
CONNECTING ONE SPEAKER TO YOUR COMPONENT SYSTEM

CONNECTING THE SPEAKERS FOR MONOPHONIC OPERATION (2 SYSTEMS)

If your SC7 is to be used monophonically and stereo is to be added at a later date, it is essential that both speaker output terminals are terminated into a proper load to prevent damage to the output stage of the receiver. Refer to Diagram D for proper installation of the loading resistors.

At no time should the output terminals be paralleled for monophonic operation!

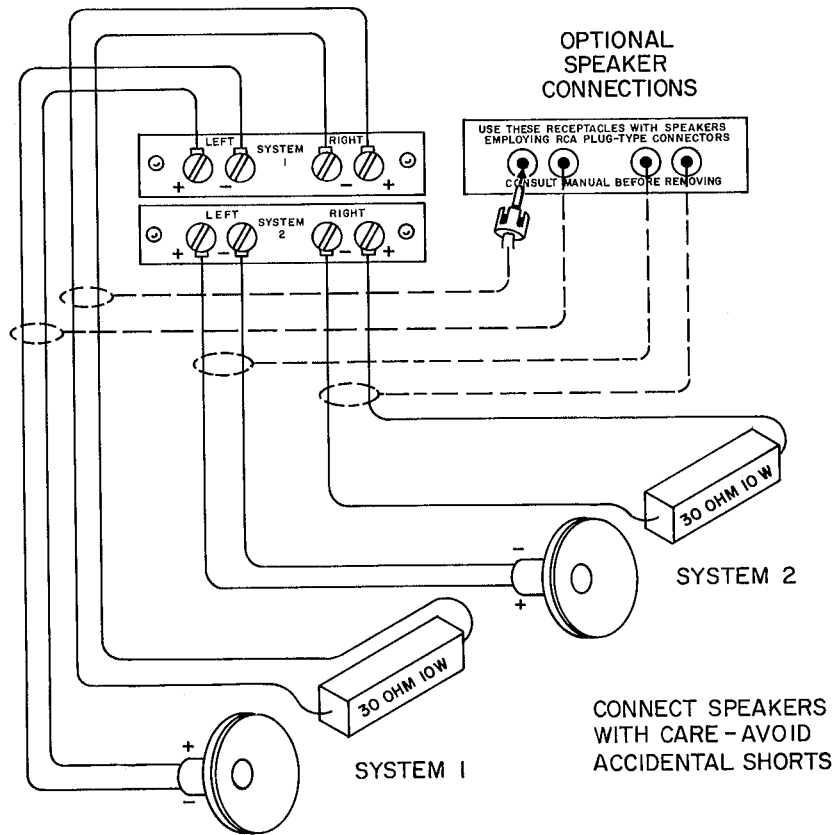


DIAGRAM D

THIS IS THE ONLY CORRECT METHOD FOR CONNECTING TWO SPEAKERS MONOPHONICALLY TO YOUR COMPONENT SYSTEM

CONNECTING THE SPEAKER FOR STEREPHONIC OPERATION (SYSTEM 1) AND MONOPHONIC OPERATION (SYSTEM 2)

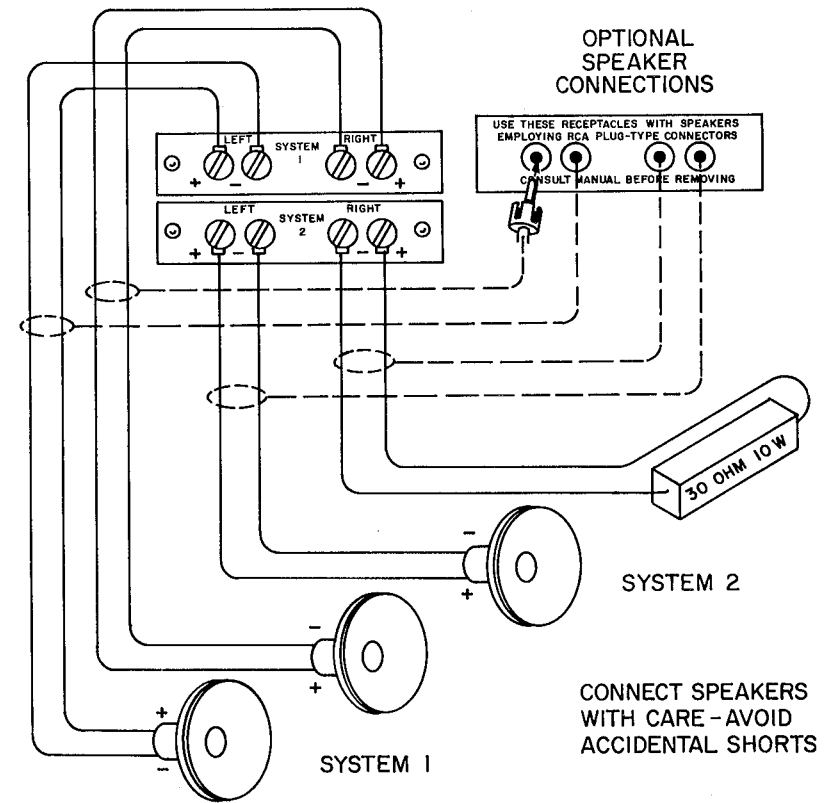
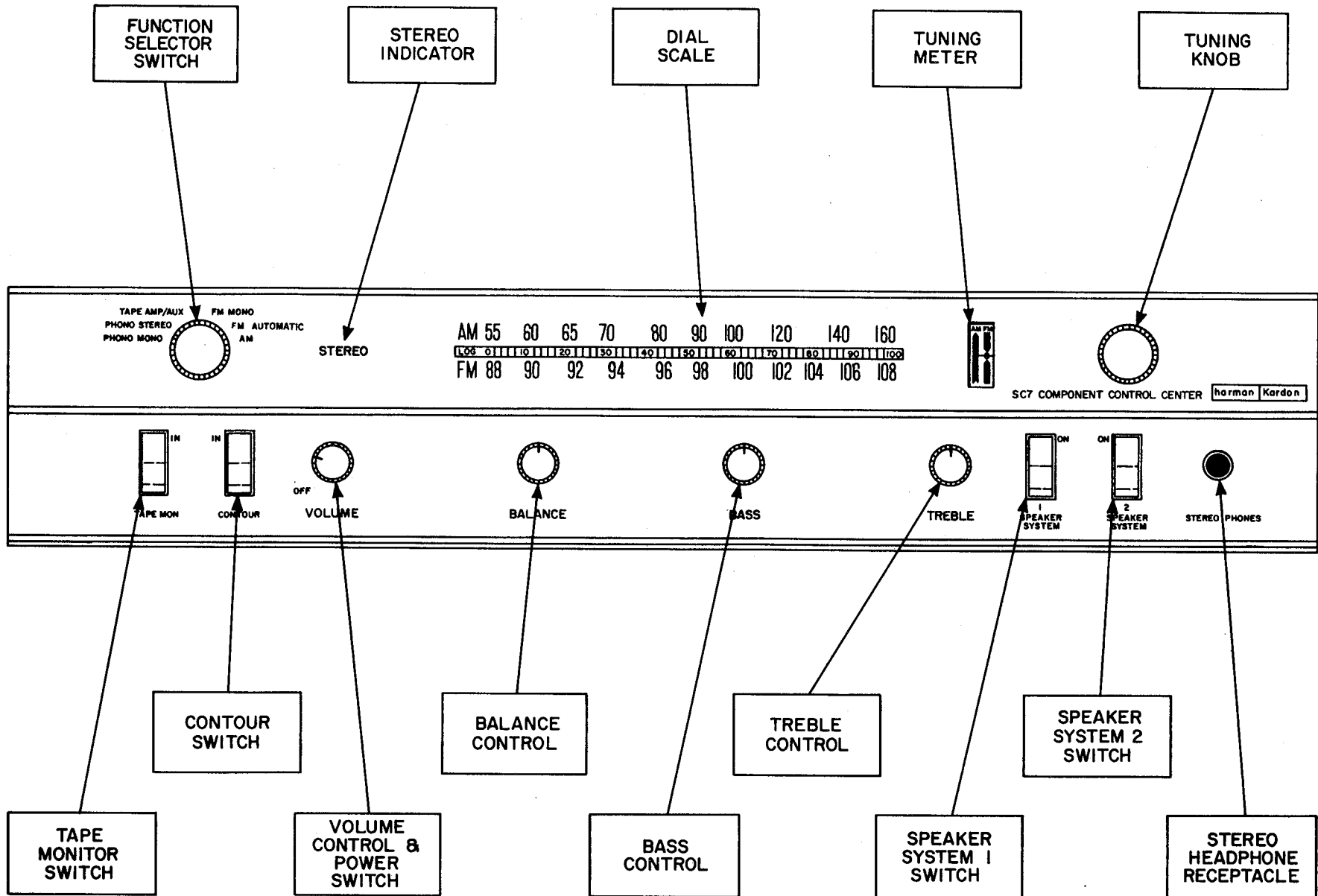
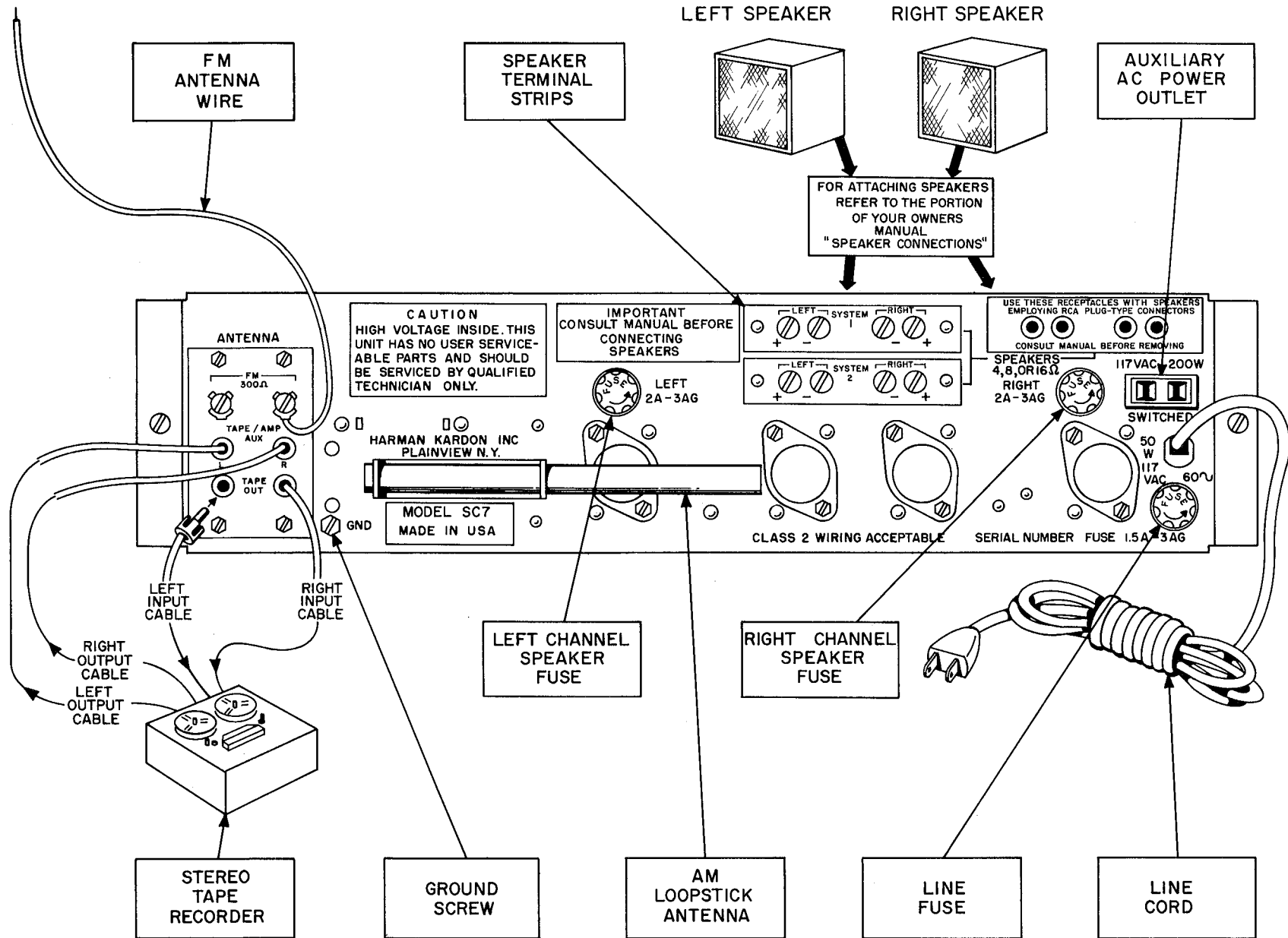


DIAGRAM E

FRONT PANEL SC7



REAR PANEL SC7



STEREO HEADPHONE RECEPTACLE

The stereo headphone receptacle located on the front panel will accept any headphone with any impedance rating. The headphone receptacle is "on" at all times. If you wish to listen to the headphones alone, see the paragraph "Speaker System Selector Switches".

CONNECTING THE FM ANTENNA

Due to the exceptionally high sensitivity of your receiver, the 48" wire supplied is sufficient for all but the most difficult locations. The balanced antenna input is designed to accept a 300 Ω antenna, indoor or outdoor type. When using the antenna supplied connect one end of the 48" wire to either of the FM antenna terminals. Horizontal placement of the antenna will yield optimum reception. The antenna may be tacked to the back of the molding behind the equipment or to the shelf you use.

As FM signals are in the same broadcast frequency range as TV signals, they are affected by the same external conditions. Just as TV reception is improved, you can improve your FM reception with an external antenna. When using an external antenna connect both leads of the antenna wire to the two FM antenna terminal posts on the rear of your receiver.

In more remote locations, an outside Yagi, folded di-pole or omni-directional antenna is recommended. For the greatest gain, an 8 to 14 element Yagi designed for the FM band is suggested. A Yagi however, is very directional and it may be desirable to use an antenna rotor if a full 360° coverage is required. For reception in the suburbs, an outside folded di-pole or omni-directional di-pole is recommended.

CONNECTING A STEREO TAPE RECORDER

Connect the two tape recorder output cables to the LEFT and RIGHT TAPE AMP/AUX input receptacles on the rear of your receiver. With the Function Switch in the TAPE AMP/AUX position you will now be able to play your stereo tapes.

In order to make a recording, connect the inputs of your tape recorder to the TAPE OUT receptacles on the rear of the receiver. This will allow you to make a stereophonic recording while simultaneously listening to the program material through your speaker system.

CONNECTING A MONOPHONIC TAPE RECORDER

If a monophonic tape recorder is to be used with your receiver connect the recorder output to either the LEFT or RIGHT AUX input receptacle located on the rear panel. This will enable you to play back your monophonic tapes.

If your recorder is stereo playback but records monophonically, connect the output as described in the previous section on connecting a stereo tape recorder. Connect the input for recording monophonically as described below.

Connect the input of your recorder to either the LEFT or RIGHT TAPE receptacle. This will enable you to record monophonically while simultaneously listening to the program through the receiver and speakers.

OPERATION PROCEDURE

Every control on this receiver serves a specific useful function and is important for the proper operation of your stereo system.

We recommend that you read the following section carefully so you may take full advantage of the performance capabilities of your receiver.

BALANCE CONTROL

The balance control is used to adjust the sound level of each channel with relation to each other.

The nature of stereophonic reproduction is such that it requires two identical channels to obtain the optimum stereo effect. As there may be slight differences between the location of the two speakers, tape heads, cartridges, etc., the balance control is provided to permit re-balancing of the overall system even in extreme cases where unbalance exists.

It should be noted that the Balance Control may be set anywhere within its range of adjustment to attain system balance.

VOLUME CONTROL AND POWER SWITCH

The Volume Control is used to adjust the volume level of any program material fed into the stereo system. The control varies both channels simultaneously therefore eliminating the necessity of balancing your system each time you change the volume level.

In the full counter-clockwise position your receiver is OFF. In order to turn your receiver ON, turn the control clockwise until a click is heard and then adjust the volume level of the program you wish to hear.

BASS AND TREBLE CONTROLS

The BASS and TREBLE tone controls on your receiver provide the full range of tonal adjustment necessary for stereo high fidelity listening. The tone control range is considerable and can adequately adjust the low and high frequencies in accordance with your listening preference, speaker characteristics and room acoustics.

CONTOUR SWITCH

One of the limitations of human hearing is its tendency to lose sensitivity to the very low pitched sounds as the program sound level is reduced. It is this characteristic (known as the Fletcher-Munson effect) which causes one to play music programs at high listening levels in order to experience the full rich tone available from fine modern recordings.

The Contour switch compensates for this effect; thereby eliminating high listening levels as a requisite for full enjoyment of reproduced music.

TAPE MONITOR SWITCH

If your tape recorder has a special monitoring feature pushing the tape monitor switch to the IN position will enable you to listen to your tapes a second after they are recorded. When not in use, this switch must be in the OUT position. If your tape recorder does not have any monitoring feature, throwing this switch will result in zero output from your speaker system.

SPEAKER SELECTOR SWITCH

Refer to paragraph on speaker connections.

FUNCTION SELECTOR SWITCH

The Function Selector Switch selects the desired type of program source to be heard thru your system.

1. PHONO MONO: Selects your record player for monophonic operation.
2. PHONO STEREO: Selects your record player for stereophonic operation.
3. TAPE AMP/AUX: Selects any program source such as tape recorder, the output of your television set, or any other high level equipment connected to the tape amp/aux receptacles on the rear of your receiver.
4. FM MONO: Selects the FM section of your receiver. In this position you can listen to stereophonic broadcasts monophonically while monophonic broadcasts will appear unchanged.
5. FM AUTOMATIC: This is the normal listening position for all monophonic or stereophonic FM broadcasts. In this position the stereo indicator and automatic switching circuit built into your receiver are operative. For further details see the paragraphs on "Stereo Indicator" and "Selecting Monophonic or Stereo FM Broadcasts"
6. AM: This position selects the AM section of your receiver for AM reception.

TUNING METER

Your Nocturne Receiver incorporates a D'Arsonval movement tuning meter for precise and accurate tuning.

For FM Tuning: The meter is designed to operate on a null or "zero" center principle. Therefore, the meter pointer should always be at the dead center position of your meter dial for optimum listening performance. To accomplish this, rotate your tuning knob slowly, in one direction towards the station of your choice. As you tune through the station you will notice the pointer swinging from the left or right past the zero center. THE CORRECT POINT for minimum distortion and optimum FM reception is when the pointer is resting at the "zero" center position.

For AM Tuning: You will observe that the meter pointer will automatically change from its mechanically centered "zero" rest position to the extreme left-hand position of the meter when you switch to the AM function. To obtain optimum AM performance, simply rotate your tuning dial to the station of your choice until the meter pointer indicates maximum clockwise deflection.

TUNING

The tuning knob, located directly to the right of the dial glass is used to select the desired station when your selector switch is in the FM mono, FM stereo, or AM positions.

SELECTING MONOPHONIC OR FM STEREO BROADCASTS

Under normal use for all FM broadcasts the function Selector Switch should be placed in the FM AUTOMATIC position.

Your receiver is equipped with a stereo sensing circuit which can automatically determine if your unit is receiving monophonic or stereophonic broadcasts, and then automatically adjust the mode of operation.

If the station is transmitting stereo, your receiver will automatically switch in the multiplex section and you will hear the broadcast in full stereo. Should the station conclude broadcasting in stereo, your receiver will automatically switch back to monophonic reception.

Should you receive a weak stereo signal whose quality has been degraded by noise or poor signal conditions, and you wish to listen to this stereo broadcast, monophonically, place the function selector switch in the FM MONO position.

STEREO INDICATOR

A stereo indicator is located directly behind the FM dial glass and operates in conjunction with the FM AUTOMATIC position of the Function Selector switch. The indicator visually shows the reproduction of FM stereo through your receiver.

To tune for FM stereo proceed as follows:

1. Place the function selector switch in the FM AUTOMATIC position.
2. Tune to the station of your choice using your tuning meter for precise and accurate tuning. Your stereo indicator will now show if you are tuned to a stereo program. If the indicator is OFF, the program you are listening to is being broadcast monophonically.

DIAL SCALE

The Dial Scale on your SC7 control center is marked with three (3) scales, an FM frequency scale (88-108 MC), an AM frequency scale (550-1600 KC), and a logging scale (0-100).

Since most FM stations operate on frequencies which are not whole numbers (such as 96MC as compared to 96.3) ideally each megacycle division on the frequency scale should be divided into 10 parts to enable the user to pinpoint the location of the station. This would require a dial scale which would be longer than the front panel.

The logging scale which is divided into 100 equal parts provides a means of finding your favorite station, once you have noted its position on the logging scale. For example, in New York City, WQXR operates on 96.3 MC. After locating this station through the use of the frequency scale (between 96 and 98 MC), you find that the pointer may fall on 50 on the logging scale. Make a note of this setting. For future tuning to WQXR simply set the pointer to 50 on the logging scale.

HUM AND NOISE

In any high fidelity installation, hum may be caused by the interconnection of a record player, tuner and amplifier, as a result of the cables and different grounds. If hum is experienced with your receiver, disconnect everything but the speakers from the receiver. If hum persists, reverse the AC line cord. Plug in the record player and if hum appears, reverse the record player power plug and connect a single lead from the record player chassis to the ground post on the rear of the receiver chassis. Connect your other devices in this manner. CAUTION: Hum may be also induced by defective connecting cables or by running these cables too close to a strong AC field.

SERVICE

If this instrument should not perform properly during the first two (2) years after date of purchase, contact the factory for instructions. The factory has many authorized warranty service stations in the United States. To aid us in selecting a service station convenient to you, it would be helpful if you would indicate what major city is closest to your home. Please write our Customer Service Department, Harman-Kardon, Incorporated, Plainview, New York 11803. Be sure to include the model and serial number of the unit. A brief description of your other components is often of help in answering your questions. DO NOT return this instrument to Harman-Kardon without first receiving authorization.