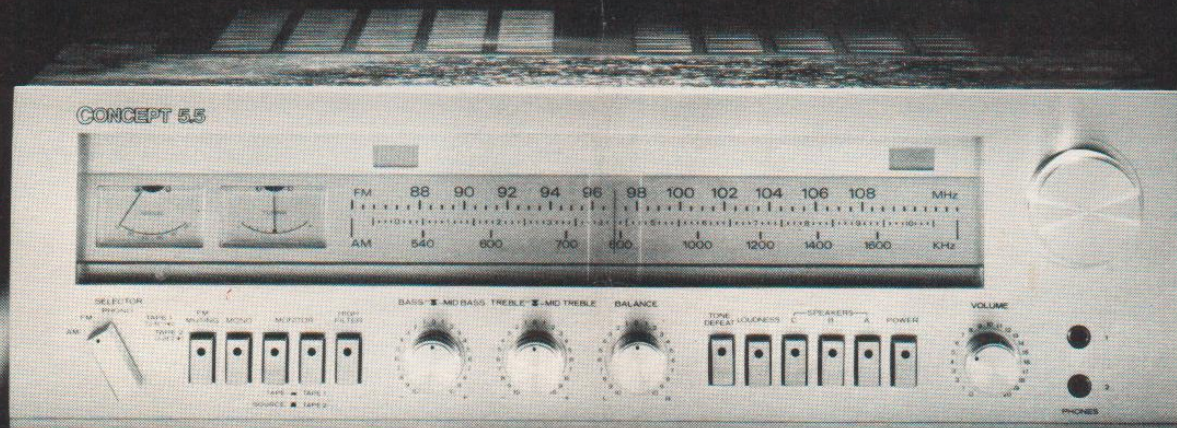


CONCEPT

5.5

Owner's Manual



Introduction

Thank you for choosing a Concept receiver. We think you'll most appreciate this product if you understand it in the context of its design philosophy. Take a few minutes and read this manual before you set up the receiver; it'll save you a lot of time, and will help you get the full potential from the Concept.

The Concept 5.5 is the result of a concentrated effort to design a line of stereo receivers without compromise. Every detail, from the action of the controls to the surface area of the internal heat sinks, has been carefully thought out and crafted by a distinguished international team of designers and production engineers. A laboratory standard of performance is augmented by bold visual definition. The final product is a finely-crafted instrument that will satisfy the most discerning audiophile.

A myriad of design innovations make the Concept 5.5 as easy to use as to listen to. Most of the binary functions are controlled by newly engineered push-buttons for maximum operational simplicity. The buttons themselves use light-emitting diodes to provide positive visual indication; the tape monitor buttons glow red when depressed, while all others glow green.

The Concept 5.5 volume and tone controls have multiple detents to allow precise adjustments that are easily repeatable. A unique four-range tone control system offers a new level of control over the frequency response, so you can get the best possible sound in any environment.

A sophisticated tuner section will match the performance of the finest separate tuners. Effective application is made of a 4-gang tuning assembly, full Quadrature detector, hand-picked filter elements and the latest Phase-Lock Loop circuitry. Tuning itself is unusually smooth, due in part to the massive internal flywheel and bearing assembly. Exact tuning is aided by a pair of calibrated meters and a stereo indicator light.

The hallmark of the Concept 5.5 is a standard of accuracy unmarred by significant audible or measurable distortion. This has been achieved by selecting only premium-quality parts and operating them far below their rated capabilities. A deliberate benefit of this design criterion is a dramatic decrease of breakdown due to parts failure.

Surely the most ambitious way to create a product, but consistent with making the Concept 5.5 receiver the ultimate synthesis of the technical, the visual, and the tactile.

Unpacking

Save the shipping carton and all packing materials. They'll assure the receiver's safety should you ever move or ship the unit.

Record the serial number of your Concept receiver in the space provided here. The number may be found on the rear panel of your receiver.

Serial Number:

Date of Purchase:

Placement

You should, of course, place your receiver where it's most convenient. However, keep it away from direct sunlight or any other heat source, and don't block the vents on the underside of the unit. **CAUTION:** To prevent fire and avoid shock hazard, do not expose the receiver to rain or moisture.

Make sure the power is switched *off* before making any connections.

Connections

Speakers

The Concept 5.5 receiver uses spring-loaded push terminals for all speaker connections; these are not only easier to use than the standard screw terminals, they greatly reduce the possibility of a stray wire strand short-circuiting the receiver.

To connect the speaker wires to the receiver, first strip off *only* about 1/4-inch of insulation and twist the strands tightly together. Press in on the movable part of the terminal and insert the bare wire in the center hole. Release the terminal.

Connect your main set of speakers to the "A" row of terminals. The right-hand speaker should be connected to the two "R" terminals, the left speaker to the "L" pair. You may connect your extension speakers to those marked "B" and "C." CAUTION: If you connect more than one pair of speakers, make sure they're all rated at 8 ohms or higher. Do not connect more than one pair of 4-ohm speakers. The Concept 5.5 is designed so that only two pairs (any two) may actually be played at one time, to prevent possible damage to the amplifier. Depressing a third speaker button will disconnect all speakers and turn off the green indicators.

CAUTION: Never make any speaker connections that join two red terminals. Rather than increasing output power, this will cause serious damage to the amplifier. If you are operating only one loudspeaker, connect it to either "L" or "R," but not both.

You should be certain your speakers are connected in phase, so that they'll work in unison rather than opposition. The positive terminal on the speaker (usually marked + or 8 ohms) should be connected to the *red* receiver terminal, the negative speaker terminal (marked - or 0) to the *black* receiver terminal. For a simple phase test, see the Useful Information section of this manual.

Components

Connect your record player to the PHONO MAG receiver inputs. To realize the full potential of the Concept receiver, use only a high-quality magnetic cartridge in your record player. *Never* use a ceramic cartridge. The left channel lead from the turntable should be firmly plugged in to the upper jack, the right channel lead to the lower. If the record player has a ground wire (most do), it should be connected to the GND post on the receiver. Grounding the record player to the receiver chassis prevents hum.

The leads from the record player should be kept away from any AC line cords. This is another precaution against unwanted hum interference. To avoid loss of high frequencies, use only the 3- or 4-foot leads supplied with the record player.

A tape recorder may be connected to either the TAPE(MON)1 or the TAPE(MON)2 jacks on the Concept 5.5. (You can connect two tape recorders, of course.) The *output* leads from the tape deck go to the IN jacks on the receiver, and the input leads (often called "line in") to the tape recorder should be plugged into the OUT jacks on the receiver.

Either set of TAPE jacks may also be used to connect an auxiliary component, such as a TV sound adapter. The leads from that component should go to the IN jacks.

Components such as equalizers or noise reduction units should be connected between the PRE OUT and MAIN IN jacks. First remove (and save) the pins connecting the two. The PRE OUT jacks should be connected to the equalizer inputs, and the MAIN IN jacks to the equalizer outputs. Other components which may be connected to these jacks include electronic crossovers and many 4-channel adapters. Do not remove the connecting pins unless you are hooking up a component to the

PRE OUT and MAIN IN jacks, or while power is on.

There are two AC convenience outlets on the Concept 5.5. One of them is SWITCHED, and is live only when the Concept's power switch is on. Plug components such as equalizers or adapters into the SWITCHED outlet. The other outlet is UNSWITCHED and is live whenever the Concept is plugged in. A record player or tape deck should only be plugged into this outlet; these components often contain mechanical parts that can be damaged if their AC power is shut off during play.

Maximum capacity of each AC convenience outlet is 100 watts.

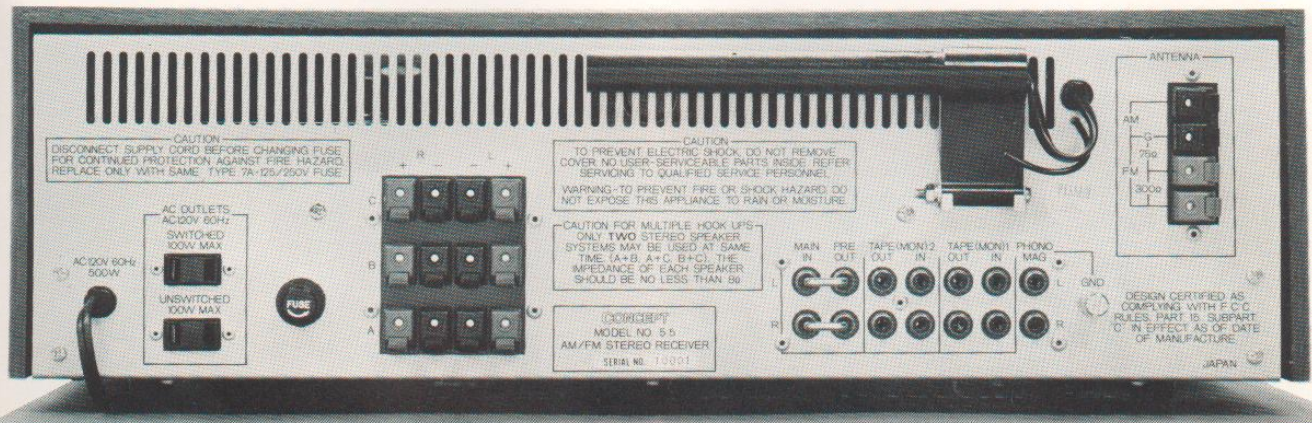
Antenna

An external antenna is required for FM reception. A T-shaped FM antenna, called a folded dipole, is included with the Concept 5.5. It should be connected to the blue (300 ohm) antenna terminals. For more antenna information, see the Useful Information section.

An AM antenna is attached to the back panel. Do not use it as a handle; it is not designed to hold the weight of the receiver. To function effectively, it should be angled away from the back of the receiver.

If you want to listen to distant AM stations, a single piece of insulated wire can be used as an AM antenna. For best results, it should be strung outdoors between two insulators, and be placed as high as possible. The outdoor portion of the wire should be 25 to 75 feet long. Connect the outdoor AM antenna to the AM terminal. For safety and also for less interference, connect the antenna ground terminal to an earth ground (such as a cold water pipe) whenever you use an outdoor AM antenna.

After you've made all the connections, you're ready to plug the power cord into a wall socket and begin operation.



In Case of Difficulty

If there appears to be a malfunction of the unit, turn it off and *check all connections*. Frequently the cause of the trouble is a loose connection rather than any receiver malfunction.

There are a number of noises which may occur from time to time and interfere with your listening. Usually these are caused by external conditions; the following section lists the most common noises and their most likely causes.

When Listening to the Radio

BUZZING, continuous or intermittent, is often caused by fluorescent lights, or electric motors (blenders, for instance). These sources may also cause hum interference. The best solution is to remove the source; if this isn't possible, try a better antenna, ground the receiver properly, or try reversing the AC plug in its outlet.

STATIC on FM may be caused by interference from automobile or truck ignitions. This is likely to occur on weaker signals, and the best solution may be an outdoor antenna with shielded connecting cable. **HISS** on an FM stereo program, if excessive, may be caused by the stereo signal being too weak. Usually, pushing the **MONO** button will improve the signal. An outdoor antenna may be of help too. (Stereo signals are inherently noisier than mono, and don't maintain clarity as far from the transmitter.)

HISS on AM reception can be caused by interference from a strong station adjacent to the one being tuned, or by a TV set being operated in close proximity to the receiver. This interference is practically impossible to remove; you can try moving the TV set away from the receiver.

When Playing Records

HUM or **BUZZ** can be caused by loose connections, poor grounding, or by AC line cords (particularly from fluorescent lamps) being too close to the shielded phono leads. Check your connections, ground the record player chassis to the receiver, move the offending cords. Severe hum in one channel is usually the result of faulty record player headshell contact or cartridge wiring.

POOR TONE QUALITY or **FUZZY SOUND** may result from a worn stylus or record, incorrectly mounted or dirty stylus. Check the stylus condition, the mounting, and the tracking force. Keep your records clean. (Your Concept dealer stocks a number of effective record-cleaning devices.) An artist's paint brush with the bristles clipped short makes an excellent stylus cleaner; you can moisten it with alcohol. Brush the stylus gently from back to front.

HOWLING and **RUMBLING** sounds may be caused by feedback, vibrations from the speakers actually transmitting back through the record player. Keep your turntable as far as possible from the speakers, and mount the turntable on as rigid a surface as you can.

Limited Warranty

Your Concept receiver is protected with a limited warranty against defects in materials and workmanship, effective for 3 years from your purchase date. During that time, authorized Concept dealers will make all necessary repairs and parts replacement, free of charge.

Your purchase receipt must be retained and presented as proof of ownership when requesting warranty repairs.

The following conditions and/or occurrences will void the warranty:

- Serial number removed or defaced;
- Alteration, misuse, accident or neglect;
- Service performed by unauthorized persons.

Exceptions to this warranty are transportation costs and charges for unauthorized service which are not reimbursable under this warranty.

Concept assumes no liability for property damage of any sort which may result from the failure of this receiver. Any warranties implied by this law are limited to the duration of this express limited warranty.

Some states do not allow exclusion or limitation on incidental or consequential damages, or time limitation on implied warranties. Therefore, some or all of this section may not apply to you. This warranty provides you with specific legal rights and you may also have other rights, which vary from state to state.

Authorized service for your Concept receiver is available most rapidly at Pacific Stereo stores. Check the Yellow or White Pages of your telephone directory for the location nearest you. If additional assistance is required, please write to Concept at the address provided below and describe the malfunction. Concept will send directions in writing.

Service Manager
Concept
CBS Inc.
1601 W. Glenlake Avenue
Itasca, Illinois 60143

Specifications

Power Amplifier Section*

Continuous power output of 55 watts per channel minimum RMS, @ 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.1% total harmonic distortion.

Frequency Response:

20 to 20,000 Hz \pm .5 dB

1V peak to peak rise time:

1.6 μ sec.

Total Harmonic Distortion:

typically less than 0.1%

IM distortion (50 Hz : 7 kHz = 4:1):

typically less than 0.1%

Hum and noise, weighted:

90 dB

Input characteristic:

950 mV, Hi Z

Outputs:

Speaker: A, B, C or any 2 together

Headphone: 2 Lo Z

*Measured in accordance with the Federal Trade Commission's rule on power output claims.

Preamp Section:

Input Sensitivity

Phono 1.9 mV

Tape 1 160 mV

Tape 2 160 mV

Phono Overload

120 mV

Output Level

Tape 1 750 mV

Tape 2 750 mV

Pre Out 950 mV

Phono Frequency Response

30 Hz to 15,000 Hz, \pm .2 dB to RIAA curve

Tone Controls

Bass \pm 6 dB @ 50 Hz in 2 dB steps

Mid Bass \pm 10 dB @ 100 Hz in 1 dB steps

Treble \pm 6 dB @ 20,000 Hz in 2 dB steps

Mid Treble \pm 10 dB @ 10,000 Hz in 1 dB steps

Loudness Contour @ -30 dB

+8 dB @ 100 Hz, +4 dB @ 10,000 Hz

High Filter

-10 dB @ 7,500 Hz, 6 dB/octave

Volume Control Balance

within .3 dB tracking

Signal-to-Noise Ratio

Phono 75 dB

Tape 1 85 dB

Tape 2 85 dB

Main In 90 dB

Residual Hum and Noise Content

.8 mV

Crosstalk @ 1 kHz

60 dB

FM Tuner Section**

Sensitivity

1.6 μ V equivalent to 9.3 dBf/300 Ω

50 dB Quieting Sensitivity

3.5 μ V equivalent to 16.1

dBf/300 Ω -

Signal-to-Noise Ratio @ 65 dBf

72 dB

Stereo Separation @ 1 kHz

46 dB

Distortion @ 65 dBf

mono 0.1%

stereo 0.15%

Frequency Response

30 Hz to 15,000 Hz \pm .5 dB

Capture Ratio

1.0 dB

Alternate Channel Selectivity

85 dB

Spurious Response Ratio

88 dB

Image Response Ratio

90 dB

IF Response Ratio

95 dB

Muting Threshold

10 μ V

AM Tuner Section

IHF Sensitivity

175 μ V/m

Image Response Ratio

50 dB

Signal-to-Noise Ratio

40 dB

Antenna

movable ferrite loopstick

**Measured in accordance with the latest IHF standard

General

AC outlets

1 switched, 1 unswitched

Dimensions

18-7/8" (47.9 cm) W

6" (15.2 cm) H

13 3/4" (34.9 cm) D

Weight

35 lbs. (15.9 kg)

Enclosure:

Rosewood pattern vinyl, bonded as high pressure laminate to multiple-ply wood.

Front panel - 6 mm solid

aluminum extrusion

120V AC only UL Approved

Thousands of hours of research, lab testing, field-testing and re-evaluating have evolved into your Concept 5.5. Needless to say, we think it will be one of the finest-performing, most convenient and best-looking receivers available for quite some time. No doubt there will be copies, but you own an original. We'd be grateful to know that this product creates the satisfaction for which it was intended. We urge you to write with your comments. Also, we've enclosed a questionnaire and would appreciate its completion and return.

Concept
1601 W. Glenlake Ave.
Itasca, Illinois 60143

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The Ultimate in Sound Reproduction

CBS Inc.
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