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INTRODUCTION

You are the owner of one of the most sophisticated and versatile audio instruments on the market.

Center tune and signal strength metering make possible outstanding tuning accuracy.

The easy-to-read control panel has push button controls.

Your receiver features a switched main and remote speaker system so you can operate all your speakers from the control panel.

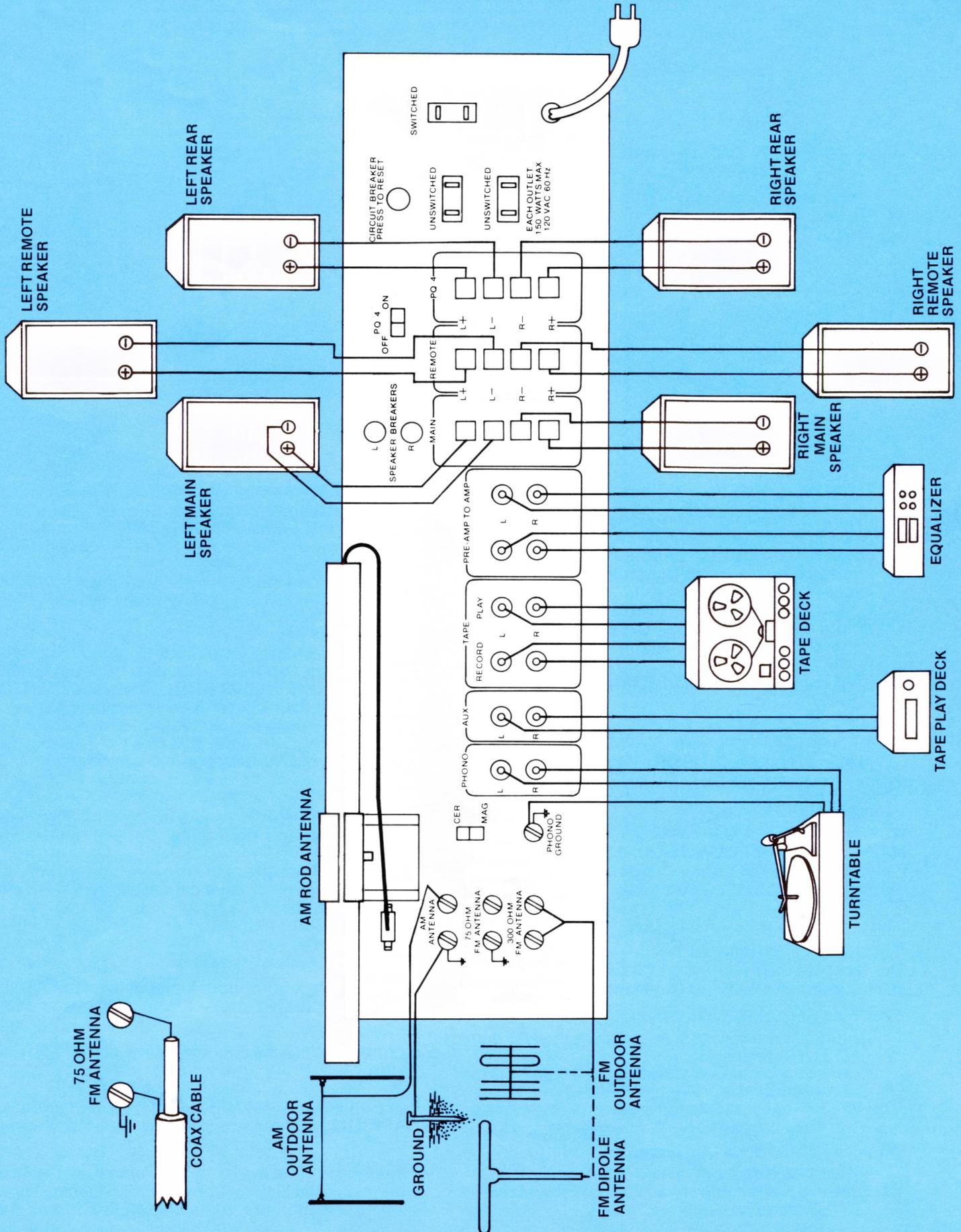
The possibility of attaching a number of accessory components is a feature of which you will certainly want to take advantage.

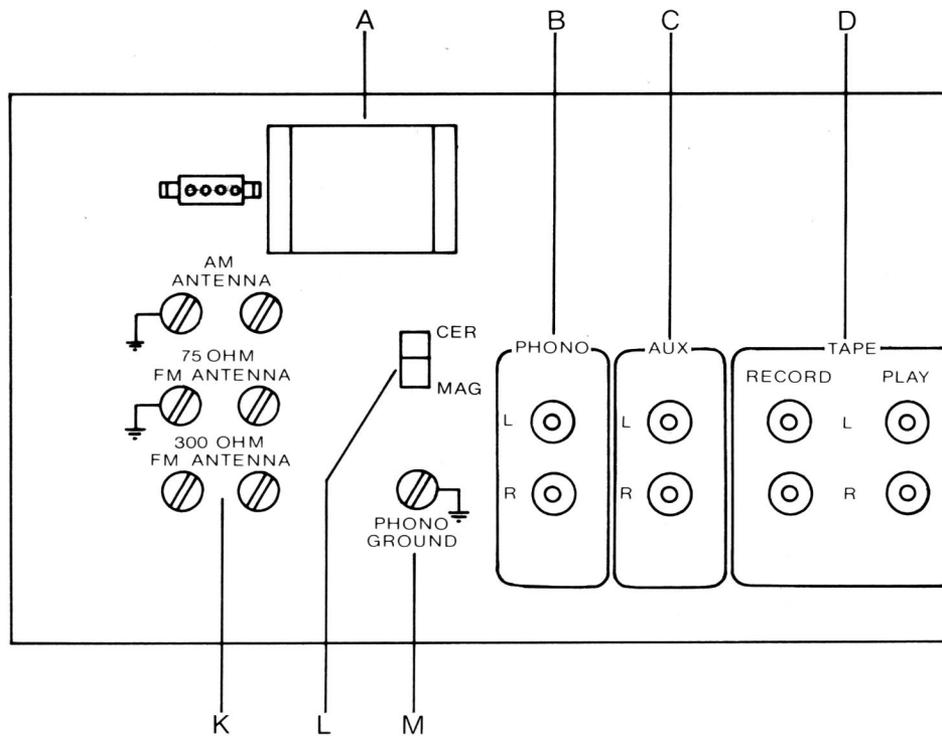
We have mentioned just a few of the many exciting features. As you read these instructions, you will discover that you have chosen a receiver capable of being the heart of a truly professional audio system.

Read carefully so you can enjoy the full potential of your Sylvania receiver.

WARNING: TO AVOID POSSIBLE FIRE OR SHOCK HAZARD, NEVER EXPOSE THIS RECEIVER OR ACCESSORY COMPONENTS TO RAIN OR MOISTURE. IF SUCH EXPOSURE OCCURS, REMOVE THE PLUG FROM THE ELECTRICAL OUTLET AND HAVE THE EXPOSED RECEIVER OR COMPONENTS CHECKED BY A COMPETENT SERVICE TECHNICIAN.

ACCESSORY CONNECTIONS





INITIAL HOOK-UP

1. Connect speakers to appropriate terminals (N). See "Speaker Connection" section.
2. Slide ferrite rod AM antenna assembly (contained in separate bag) into holder (A) and plug-in connector.
3. Connect leads from the FM dipole antenna (contained in separate bag) under the 300 ohm terminals (K). See "antenna connections" section for further details.
4. Plug in AC line cord (O) to a 120 volt, 60 Hz outlet.

CONNECTING ACCESSORY COMPONENTS

WARNING: TO AVOID A POSSIBLE SHOCK HAZARD, DO NOT CONNECT ANY ACCESSORY WHICH DOES NOT HAVE A MANUFACTURER SUPPLIED AUDIO OUTPUT JACK.

Antenna Connections (K)

The jackplate has provisions for attaching outdoor antennas for reception of distant stations.

External Long Line AM Antenna

1. Connect lead-in wire from antenna to right AM ANTENNA terminal.
2. Connect ground (left) terminal to a good earth ground, such as a water pipe.

NOTE: The AM ferrite rod must remain attached for proper operation.

External FM Antenna 300 Ohm

1. Connect leads from a 300 ohm outdoor FM antenna under the two 300 OHM FM ANTENNA terminals.

External FM Antenna 75 Ohm

1. Attach center conductor of coaxial lead-in to the right 75 OHM FM ANTENNA terminal.
 2. Attach outer shield of 75 ohm lead-in to the ground (left) terminal.
- NOTE:** Use only one FM antenna either 75 ohm or 300 ohm at any one time.

Phono Jacks (B)

1. Plug turntable cables into the appropriate left and right PHONO jacks (B). Connect ground wire under PHONO GROUND terminal (M).
2. The PHONO input may be used with ceramic as well as magnetic cartridges. Move switch (L) to appropriate setting. CER for ceramic cartridge or MAG for magnetic cartridge.

Aux Jacks (C)

Plug the output of accessory equipment into the appropriate left and right jacks. Typical accessories are:

1. 8-track, cassette, or reel to reel tape play deck.
2. Microphone or musical instrument with pre-amplifier.

Tape Jacks (D)

RECORD

Connect the record input jacks of the tape deck to the TAPE RECORD jacks.

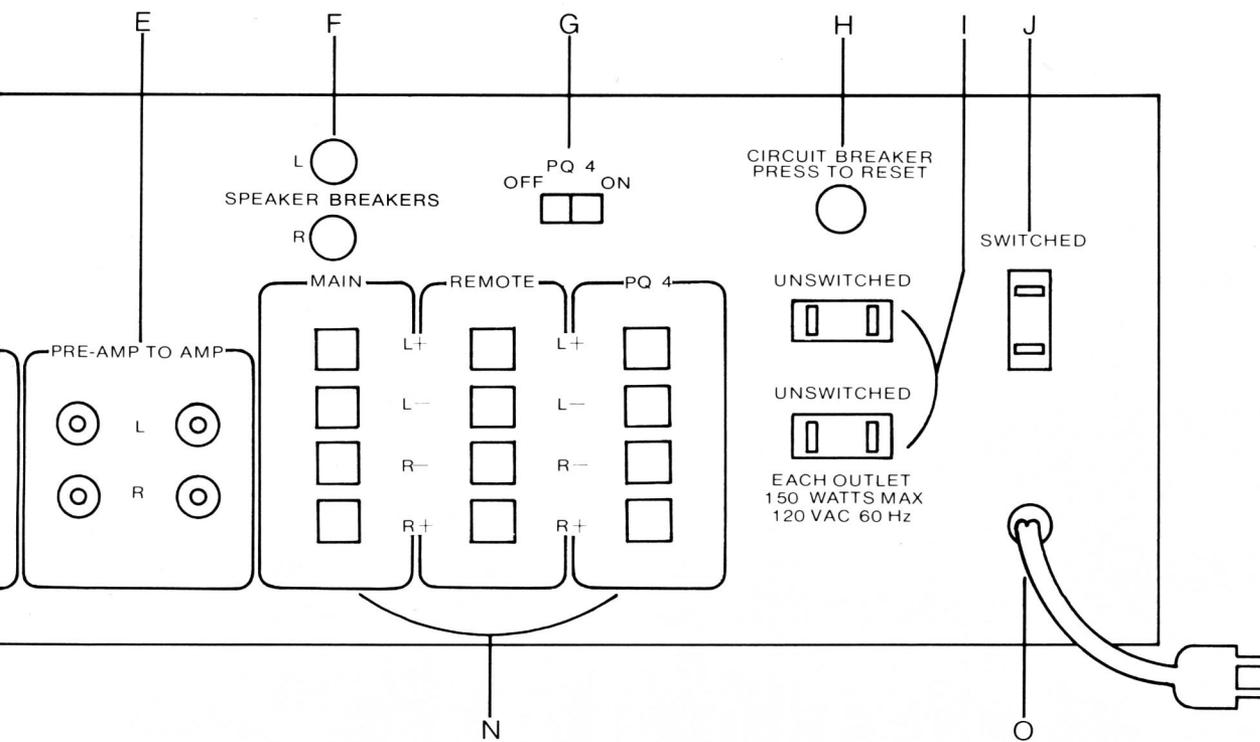
PLAY

Connect the playback output jacks of the tape deck to the TAPE PLAY jacks.

Pre-Amp to Amp Jacks (E)

CAUTION: In all cases, turn power off before removing jumpers.

The pre-amplifier signals are relayed from the PRE-AMP output jacks to the power AMP jacks. By removing the jumpers, the signal path can be inter-



rupted to insert accessory equipment. For example, an environmental equalizer may be used to shape frequency response to suit room acoustics. Alternatively, the PRE-AMP output may be routed to an electronic cross-over network. The low frequency output of this network would be connected to the power AMP input while the high frequency output should be connected to a separate slave power amplifier. Finally, the PRE-AMP output could be used to drive a slave power amplifier located remotely from the receiver.

NOTE: To use both slave amp and the internal power amp, DO NOT use the main high level slave amp output to feed the receiver power amp. Either use the slave amp low level output or use a commercially available "Y" connector at the receiver PRE-AMP jacks. One side of the "Y" goes to the accessory input, the other goes to the AMP jacks of the receiver.

Speaker Connection (N)

Use no smaller than 18 gauge wire to connect speakers to output terminals (N). Always be sure positive and negative outputs are connected to corresponding positive and negative terminals on the speaker.

MAIN

Connect the primary pair of speakers to the main terminals.

REMOTE

Connect a secondary pair of speakers to the remote speaker terminals. These speakers could be located in another room.

PQ-4

Connect a pair of rear channel speakers to obtain a four channel matrix sound. Switch (G) can be used to turn off rear speakers when not in use.

Unswitched AC Outlets (I)

Plug accessory components such as turntables or tape decks into these outlets. These outlets remain on when the receiver power switch is turned off.

Switched AC Outlet (J)

Plug associated electronic components such as an environmental equalizer or slave amplifier into this outlet. This outlet will be off when the receiver power is off.

NOTE: Do not use this outlet for turntables, tape decks or other motor driven accessories.

PROTECTIVE CIRCUITS

Your receiver incorporates three protective systems to guard against abnormal operating conditions that could cause damage to the receiver or speakers.

Electronic Current Limiting

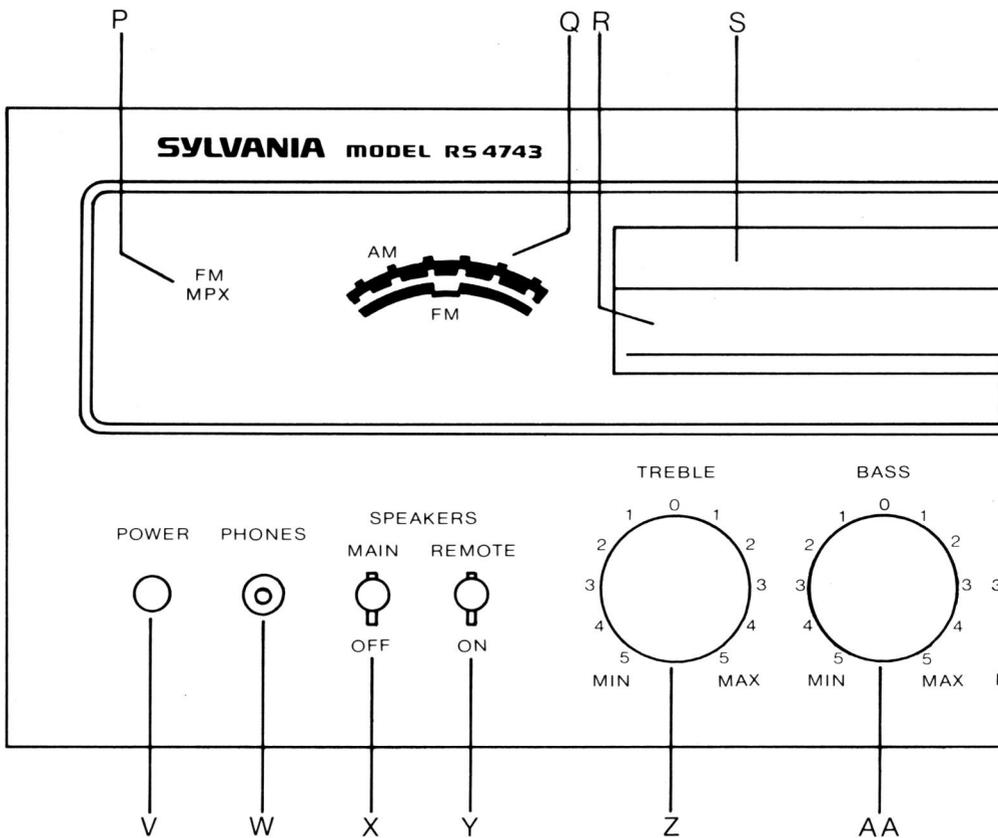
Protects the amplifier from improperly connected speakers. If the output is shorted or excessively loaded, the amplifier will automatically reduce the output signal to safe levels.

Circuit Breaker – Main (H)

Provides protection against AC power overloads. If your unit suddenly goes off, push the button (H) in to re-set the breaker. Do not hold the button depressed for an extended length of time. If frequent resetting is required consult your authorized Sylvania service dealer.

Circuit Breaker – Speakers (F)

There are two SPEAKER BREAKERS, one for each channel. These breakers will turn your speakers off automatically in case of an overload. Turn set off and push appropriate speaker breaker button (F) in. If frequent resetting is required check speaker wiring for shorts, damaged speakers or overload due to improper speaker impedance.



SOUND SYSTEM INDICATORS

P—FM MPX Indicator — light glows when you have tuned in a stereo broadcast.

NOTE: Indicator will not light when MONO button is depressed.

Q—TUNING Meter—indicates best FM tuning when needle is centered and indicates best AM tuning when needle is as far right as possible.

R—AM Dial—indicates AM station frequencies 540 to 1600 kHz.

S—FM Dial—indicates FM station frequencies 88 to 108 MHz.

T—Log Scale—quick reference tuning guide that provides log scale reference numbers which can be used to relocate favorite stations.

SOUND SYSTEM CONTROLS

U—TUNING — to select AM & FM stations.

V—POWER — to turn unit on and off.

W—PHONES Jack—to plug in stereo headphones.

X—MAIN SPEAKER Switch — to select main and PQ-4 speaker systems.

Y—REMOTE SPEAKER Switch—to select remote speaker system.

Z—TREBLE — to adjust high frequency sounds such as flutes or violins.

AA—BASS — to adjust low frequency sounds, such as kettle drums or organ pedal notes.

NOTE: To increase treble, or bass turn appropriate knob right; to decrease turn left. Set knob in center position for normal or "FLAT" response.

BB—BALANCE — to adjust for equal level from left and right speakers.

CC—VOLUME — to adjust audio level on all speakers simultaneously.

DD—TAPE — to engage system for accessory tape play.

NOTE: Tape button must be released for FM, AM, PHONO, OR AUX functions.

EE—PHONO — to engage system for phonograph disc. play.

FF—HI and LO Filters — High filter reduces high frequency hiss and scratch noises. Low filter reduces turntable rumble, and acoustical feedback.

GG—AUX — to engage system for auxiliary components.

HH—AM — to engage system for AM reception.

II—MONO — to engage system for monaural sources.

JJ—FM — to engage system for FM reception.

KK—LOUDNESS — to increase bass frequencies for proper tonal balance at low listening levels.

LL—MUTE — eliminates interstation noise and weak noisy FM stations.

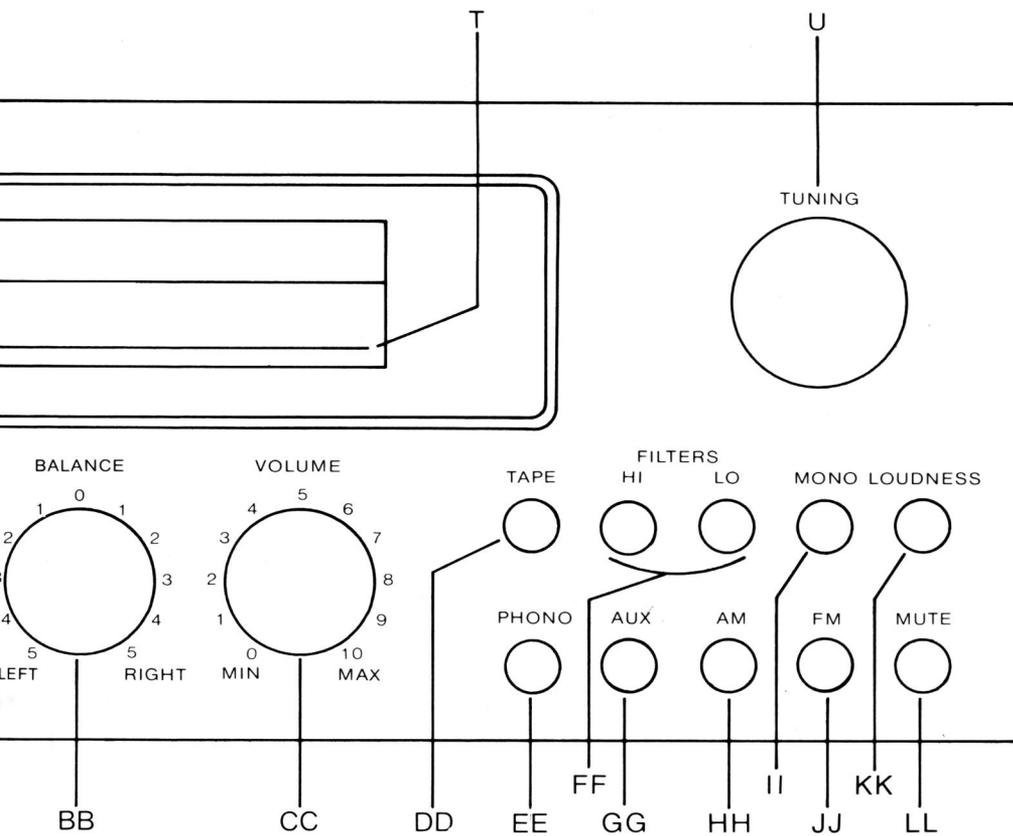
SOUND SYSTEM OPERATION

AM Reception

1. Depress POWER button (V).
2. Depress AM button (HH).
3. Rotate TUNING control (U) to select desired station as indicated on AM dial (R). Reception is optimum when needle on TUNING meter (Q) is as far to right as possible.

FM Reception

1. Depress POWER button (V).
2. Depress FM button (JJ).
3. Rotate TUNING control (U) to select desired station as indicated on FM dial (S). Reception is



optimum when needle of TUNING meter (Q) is centered.

- To listen to a distant station with a weak signal, release the MUTE switch (LL).

Phono

- Connect turntable to rear of unit. See "Connecting Accessory Components" section.
- Depress POWER button (V).
- Depress PHONO button (EE).
- When playing monaural records, depress MONO button (II).
- For additional instructions refer to instructions supplied with your turntable.

Aux

- Connect accessory unit to rear of unit. See "Connecting Accessory Components" section.
- Depress POWER button (V).
- Depress AUX button (GG).

Tape Play

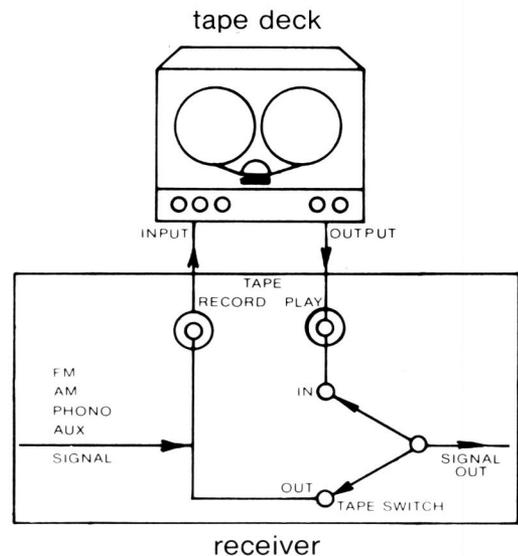
- Connect tape equipment to TAPE PLAY jacks on rear of unit. See "Connecting Accessory Components" section.
- Depress POWER button (V).
- Depress TAPE button (DD).
- For additional information consult the instructions supplied with your tape deck.

Tape Recording

- Connect tape equipment to TAPE RECORD jacks on rear of unit. See "Connecting Accessory Components" section.
- Depress POWER button (V).
- Select program source as described under sections AM, FM, PHONO, or AUX. The program

source signal is always present at the TAPE RECORD jacks and is not affected by the settings of the TREBLE, BASS, VOLUME or BALANCE controls.

- If the tape deck is a 3-head type equipped with a tape monitor function, the recording can be monitored by depressing the TAPE button (DD). Both the PLAY and RECORD jacks must be connected to the tape deck. See Illustration below.
- For additional information consult the instructions supplied with your tape deck.



SPECIFICATIONS

AMPLIFIER

*POWER OUTPUT

1KHz Continuous (RMS) power	38/38w
Rated Continuous (RMS) power	
20Hz-20KHz	30/30w
Total IHF music power @ 1KHz	100w
Power bandwidth (IHF)	5Hz→30KHz
Damping Factor	20

*All power measurements are taken @ 120 volts/60 Hertz continuous power both channels operating at rated distortion and 8 ohms.

DISTORTION

Total harmonic distortion (THD) at rated power input	Less than .25%
THD at ½ rated power (1KHz)	Less than .15%
IM distortion (60/7000, 4:1) at rated continuous power, 8 ohms, 1KHz	Less than .25%
IM distortion (60/7000, 4:1) at ½ rated continuous power, 8 ohms, 1KHz	Less than .15%

FREQUENCY RESPONSE

Frequency response at tape input	7Hz→70KHz ± 1db
Phono equalization RIAA standard	± 1.5db

FILTERS

Low Filter	-20db @ 20Hz 12db/octave
High Filter	-20db @ 20KHz 12db/octave

LOUDNESS CONTOUR

Volume Control Position -30db	
50Hz	+6db
1000Hz	0db

TONE CONTROL ACTION

Bass Control, 50Hz	±18db
Treble Control 10KHz	±12db

INPUT SENSITIVITY

For rated continuous power, 8 ohms, 1KHz	
Power Amp	1.4v
Tape	250mv
Aux.	250mv
Phono	2.2mv

INPUT IMPEDANCE

Power Amp	100,000 ohms
Tape	100,000 ohms
Aux.	100,000 ohms
Phono	47,000 ohms

OUTPUT LEVEL

For rated continuous power, 8 ohms, 1KHz	
Pre-amp out	1.4v
Tape Output	250mv

OUTPUT IMPEDANCE

Pre-amp Out	10,000 ohms
Tape out	5,000 ohms

SIGNAL TO NOISE RATIO

Phono	70db below 10mv input
Tape	75db below 250mv input
Aux.	75db below 250mv input

FM TUNER

Usable Sensitivity (IHF)	
300 ohms	1.8μv
50db quieting sensitivity	3μv
Signal to Noise Ratio 100% mod.	67db
Capture Radio (IHF)	1.5db
Full Limiting (1db)	1.4μv
Image Rejection	53db
Alternate Channel Rejection (IHF)	55db
IF Rejection @ 98MHz	50db
F ₀ + ½ IF Rejection at 98MHz	80db
AM Suppression	35db
Total Harmonic Distortion (THD)	
FM Mono	.5%
FM Stereo	.5%
Stereo Separation	
1KHz	35db
50Hz/10KHz	25db
FM Muting Threshold	5μv

AM TUNER

Sensitivity 20db S/N	
30% mod., 400Hz, 1.4MHz	200μv/m
Image Rejection 1.4MHz	60db
Selectivity ±10KHz, 1.4MHz	28db
AGC Figure of merit 1.4MHz	43db

WARRANTY

Receivers

GTE Sylvania presents its warranty to you in question-and-answer form to give you a clear understanding of just how you are protected.

WHO IS PROTECTED?

The original retail purchaser. We suggest the original retail purchaser mail the warranty registration card to GTE Sylvania to facilitate service should it be required.

WHAT IS PROTECTED AND FOR HOW LONG?

The receiver and its parts are covered for two (2) years from date of purchase.

HOW ARE YOU PROTECTED?

The Sylvania dealer from whom you purchased your receiver, or an authorized Sylvania Service Contractor, will repair or replace any part which fails under normal use within the warranty period.

You must deliver your receiver to your Sylvania dealer or an authorized Service Contractor's place of business for service...and pick it up from him when service has been performed.

WHO PAYS THE LABOR CHARGE?

For two(2) years after the date of purchase, the Sylvania Dealer from whom you purchased your receiver, or an authorized Sylvania Service Contractor, will honor this warranty without any labor or service charges. After the two (2) year warranty period, you pay for labor or service charges.

ARE REPLACEMENT PARTS PROTECTED?

Yes, replacement parts are protected for the balance of the original warranty period.

WHAT IF YOU MOVE?

The Sylvania dealer or an authorized Sylvania Service Contractor located in the area to which you move will honor this warranty for the balance of the warranty period. Service will be expedited if you will present your sales slip to the dealer or service contractor in the area to which you move since he will not, initially, have any record of your purchase.

THIS IS THE GTE SYLVANIA WARRANTY

**We recommend Sylvania Replacement Parts
SPECIFICATIONS SUBJECT TO CHANGE
WITHOUT NOTICE**

Entertainment Products Group, 700 Ellicott Street, Batavia, New York 14020

GTE SYLVANIA
INCORPORATED