

OVATION AMPLIFIERS

OWNER'S MANUAL
OPAS SIX
PUBLIC ADDRESS SYSTEM

You are the owner of the finest audio amplification equipment made in the world today. It is a solid-state, modular unit designed specifically to provide maximum power and flexibility throughout the audio range. This equipment offers a versatility of music amplification and performance not found in any other equipment.

The purpose of this manual is to acquaint you with the design and operating features of your new Ovation equipment. Read this manual carefully. Knowing how and when to operate the various controls will permit you to derive the greatest satisfaction and optimum performance from your Ovation equipment.

DESCRIPTION

Ovation's OPAS SIX public address system consists of the following components:

COMPONENT	MODEL	QUANTITY
Pre-amp/Power Amp	K6426	1
Speaker Column	K7475	2
Footswitch	K9604	1
Pre-amp/Power Amp Stand	K9610	1

The pre-amp/power amp enclosure contains two solid-state modules, a six-channel pre-amplifier at the front end and a power amplifier at the rear. Each pre-amplifier channel is equipped with individual bass, volume, reverberation, and treble controls. The unit also has master bass, volume, and treble controls for adjusting the volume and tone of the complete pre-amp to compensate for the acoustics of the area.

In addition, ANTI-FEEDBACK controls are provided to eliminate any undesirable feedback that may be encountered. Remote control of reverb is possible through a footswitch jack on the front panel.

Each channel of your Ovation unit is also equipped with DUAL ACTION VOLUME CONTROL to eliminate low-level distortion by lowering input sensitivity as the volume control is lowered. This feature improves upon the out-moded practice of curbing low-level distortion with different loudness levels on two inputs of the same channel. (Low-level distortion usually occurs when the pre-amplifier is turned down and the instrument is turned up).

The pre-amp and power amp both operate with Ovation's FAILSAFE circuit that prevents damage to the system should an overload or other malfunction occur. The circuit operates in microseconds when the full-rated power limits are exceeded. An easily reset circuit breaker replaces old-fashioned fuses.

An input jack in each channel allows more than one instrument to be played with the system. Also, an echo unit may be connected to the pre-amp through jacks on the front panel if this audio effect is desired. The OUTPUT jack on the rear of the pre-amp/power amp is required for normal operation with the speaker enclosures. Although not required for normal operation, an INPUT jack permits hook-up of additional powered enclosures if other audio effects are desired.

This amplifier supplies 100 watts rms into a 4-ohm (2 K7475 columns) load (225 watts of music power). Frequency response is 20 to 20,000 cycles ± 1 db, with a noise level better than -60 db at full-rated power.

Each speaker column contains one high-frequency driver and horn in addition to four 12-inch speakers. Four jacks at the rear of the cabinet permit the speaker column to be connected to the pre-amp/power amp and to other unpowered enclosures.

OPERATING INSTRUCTIONS

Procedures for operating your Ovation amplifier system are provided in this section with supplementary information included in the Controls and Indicators section of this manual. Refer to figures 1, 2 and 4 for location of controls and components.

SETUP & ADJUSTMENT

1. Place the pre-amp/power amp on its stand in a position so that there is SUFFICIENT AIR SPACE AROUND THE HEAT SINK TO ALLOW GOOD VENTILATION.

2. Set the following pre-amp/power amp controls to the position indicated:

CONTROL	POSITION
POWER	OFF
MASTER BASS	5
MASTER VOLUME	0
MASTER TREBLE	5
REVERB	0
ATTENUATION*	0
BASS**	5
VOLUME**	0
TREBLE**	0

*Two controls

**One control in each channel

3. Connect red output jacks on speaker columns to red OUTPUT jack on rear of pre-amp/power amp according to information in Controls and Indicators section of this manual. Use unshielded cords (supplied with the system) to make these connections.
4. Connect power cord to 117-volt, 60-cycle electric outlet.
5. Set the POWER switch to either ON position. Use the ON position that gives the least amount of power hum in the speakers. Indicator light on front of amplifier will come on.
6. Connect your electric instrument(s) into the desired channel input jack(s).
7. If external powered enclosures are to be used, connect into **green** INPUT jack according to information in Controls and Indicators section. OBSERVE CAUTION.
8. If additional external unpowered enclosures are to be used, connect into **red** jacks on rear of speaker columns according to information in Controls and Indicators section. OBSERVE CAUTION.
9. Slowly adjust the BASS, VOLUME, TREBLE, and REVERB controls (MASTER and channel) to achieve the desired audio effects. Adjust according to information in Controls and Indicators section. (Make certain that the MASTER VOLUME setting is higher than that of any channel VOLUME setting).
10. Connect footswitch plug into FOOTSWITCH jack, if the footswitch is to be used.

STOPPING

1. Set the POWER switch to OFF. Indicator light will go off at this time.
2. Disconnect your instrument(s) from input jack(s).
3. Disconnect footswitch from FOOTSWITCH jack.
4. Disconnect power cord from 117-volt, 60-cycle electric outlet.
5. Disconnect all external components from INPUT and OUTPUT jacks at rear of control panel.

RESETTING

A FAILSAFE circuit is designed into your Ovation system to protect the circuitry from serious damage should an overload or other malfunction occur in the amplifier. When an overload occurs, a circuit breaker will open causing the power to the amplifier to turn off (indicator light on front of the pre-amp/power amp will go off).

To reapply power to the system, just press and release the red reset pushbutton on the rear of the pre-amp/power amp. Since an overload is frequently the result of operating the amplifier at too high a volume level (too loud), it may also be necessary to decrease the VOLUME control settings. Should the overload condition persist, turn the amplifier off and contact your local dealer for service.

CAUTION

**TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE BACK COVER.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

CONTROLS and INDICATORS

FRONT PANEL OF PRE-AMP/POWER AMP (See Figure 1)

- A. INPUT JACK — Each channel is equipped with one INPUT jack to permit one instrument to be played simultaneously through each channel. Each input jack has the same sensitivity at all levels. Use a standard 1/4-inch phone plug with shielded cord to connect electric instruments.
- B. BASS CONTROL — The BASS control in each channel varies the low frequency response of the channel. When the BASS control is turned left from 5 (counterclockwise), the bass notes are de-emphasized. Turning the BASS control to the right from 5 (clockwise) will accentuate the bass tones.

- C. **TREBLE CONTROL** — The TREBLE control in each channel varies the high frequency response of the channel. When the TREBLE knob is turned left from 5 (counterclockwise), the treble tones are de-emphasized. Turning the TREBLE control right from 5 (clockwise) will accentuate the treble tones.
- D. **VOLUME CONTROL** — The VOLUME control in each channel regulates the loudness (the amount of gain) of the channel. Volume will increase when the VOLUME control is turned right from 0, (clockwise). Pulling the VOLUME control out will turn on the reverb effect for the channel.
- E. **ANTI-FEEDBACK ATTENUATION CONTROLS** — The ANTI-FEEDBACK ATTENUATION controls adjust the suppression of any feedback that may be occurring in the system at the frequencies selected by the ANTI-FEEDBACK FREQUENCY controls. Turning the ATTENUATION from 0 (clockwise) will reduce feedback. Use the left-hand ATTENUATION control with the left-hand FREQUENCY control; the right-hand ATTENUATION control with the right-hand FREQUENCY control.
- F. **ANTI-FEEDBACK FREQUENCY CONTROLS** — The ANTI-FEEDBACK FREQUENCY controls select the frequency, or frequencies, at which feedback is occurring in the system. The frequency is isolated by turning ATTENUATION control full (clockwise #10) and rotating the FREQUENCY control until the feedback is eliminated.
- G. **REVERB CONTROL** — The REVERB control varies the intensity of the reverb effect in the selected channel or channels. When the REVERB control is turned right from 0 (clockwise), reverb intensity will increase.
- H. **FOOTSWITCH JACK** — The FOOTSWITCH jack accepts the plug on the Ovation model K9604 footswitch for turning reverb on and off. The footswitch is not required for operation of the pre-amp; however, it provides remote control of the pre-set reverb effect.
 To use the footswitch to your best advantage: first select the setting desired for reverb and tremolo; then plug the footswitch into the FOOTSWITCH jack.
 The single switch on the footswitch labeled REVERB is a sequential type; that is, each time the switch is pushed in, it will alternately turn the desired effect on or off.
- I. **ECHO JACKS** — The ECHO jacks permit an echo unit to be connected to the pre-amp/power amp if the additional effect is desired. To make these connections, first connect the TO ECHO jack with the input jack on the echo unit. Next connect the FROM ECHO jack with the output jack on the echo unit. Use standard 1/4-inch phone plugs with heavy shielded cords for these connections.
- J. **MASTER BASS CONTROL** — The MASTER BASS control varies the low frequency response of the mixed outputs of all six channels. When the MASTER BASS control is turned left from 5 (counterclockwise), the bass notes are de-emphasized. Turning the MASTER BASS control right from 5 (clockwise), will accentuate the bass tones.
- K. **MASTER VOLUME CONTROL** — The MASTER VOLUME control regulates the loudness (the amount of gain) of the mixed outputs of all six channels. Volume will increase when the MASTER VOLUME control is turned right from 0 (clockwise). The MASTER VOLUME control setting should be higher than the setting of any channel VOLUME control.
- L. **MASTER TREBLE CONTROL** — The MASTER TREBLE control varies the high frequency response of the mixed outputs of all six channels. When the MASTER TREBLE knob is turned left from 5 (counterclockwise), the treble tones are de-emphasized. Turning the MASTER TREBLE control right from 5 (clockwise) will accentuate the treble tones.
- M. **INDICATOR LIGHT** — The green light will come on when power is applied to the pre-amp/power amp and the circuit breaker is closed. If an overload opens the circuit breaker, this light will go off.
- N. **POWER SWITCH** — The POWER switch is a three-position toggle switch. One position of this switch is OFF. The two ON positions of this switch reverse the line connections. Select the ON position that gives the least power hum in the speakers.

REAR PANEL OF PRE-AMP/POWER AMP (See Figure 2)

- O. **CIRCUIT BREAKER** — The CIRCUIT BREAKER is used to open the circuit should an overload or other malfunction occur in the system. This type of circuit breaker requires no cooling off period and may be reset immediately. To reapply power to the system, just press and release the red reset push-button. No fuses are required with any Ovation equipment.
- P. **POWER CORD** — The POWER CORD is equipped with a standard two-prong plug for use in a 117-volt, 60-cycle electric outlet only. This amplifier requires 200 watts or 1.7 amps.

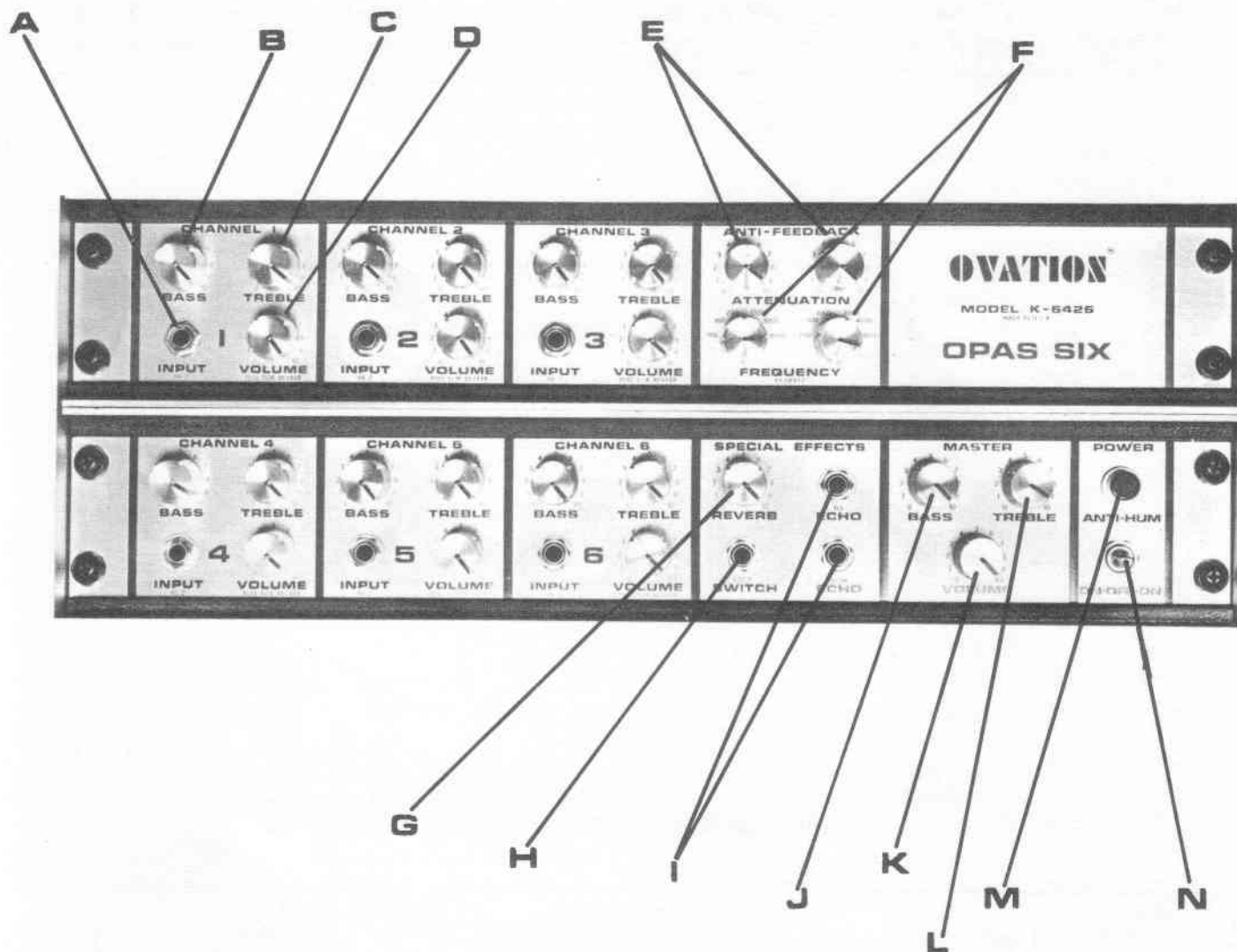


Figure 1. Controls and Indicators on Front Panel of Pre-amp/Power Amp

- Q. **INPUT JACK (GREEN)** — The green INPUT jack allows more than one external powered enclosure to be connected in parallel (with standard 1/4-inch phone plugs and shielded cords) for increased output. To make these connections, first connect the amplifier INPUT jack (green) to the green INPUT jack of the first external powered enclosure as shown in figure 3. If a second external powered enclosure is to be connected, make a connection from the remaining green INPUT jack of the first external enclosure to the green INPUT jack of the second enclosure. Connections to additional powered enclosures can be made by repeating this sequence.

CAUTION

TO AVOID DAMAGE TO YOUR EQUIPMENT WHEN PLACING ADDITIONAL POWERED ENCLOSURES IN THE SYSTEM, BE SURE THAT YOU MAKE ALL CONNECTIONS FROM THE GREEN INPUT JACKS TO THE GREEN INPUT JACKS. THE RED OUTPUT JACKS ARE NEVER TO BE USED FOR CONNECTIONS BETWEEN POWERED ENCLOSURES.

- R. **OUTPUT JACK (RED)** — The red OUTPUT jack is required to drive the speaker columns, and any other unamplified speakers of Ovation Freq-Lites (see figure 3). The red OUTPUT jack will accept the standard 1/4-inch phone plug with heavy, unshielded cord.

CAUTION

TO AVOID DAMAGE TO YOUR EQUIPMENT, THE RED OUTPUT JACK IS NOT TO BE USED FOR CONNECTING POWERED ENCLOSURES. POWERED ENCLOSURES ARE TO BE CONNECTED ONLY FROM GREEN INPUT TO GREEN INPUT. THE ONLY SPEAKER UNITS THAT ARE TO BE CONNECTED TO THE RED OUTPUT JACK MUST BE UNPOWERED ENCLOSURES.

- S. **HEAT SINK** — The finned HEAT SINK provides safe transistor operation under prolonged high output usage. To receive maximum life of the amplifier components, BE SURE THERE IS SUFFICIENT AIR SPACE AROUND THE HEAT SINK TO ALLOW GOOD VENTILATION.

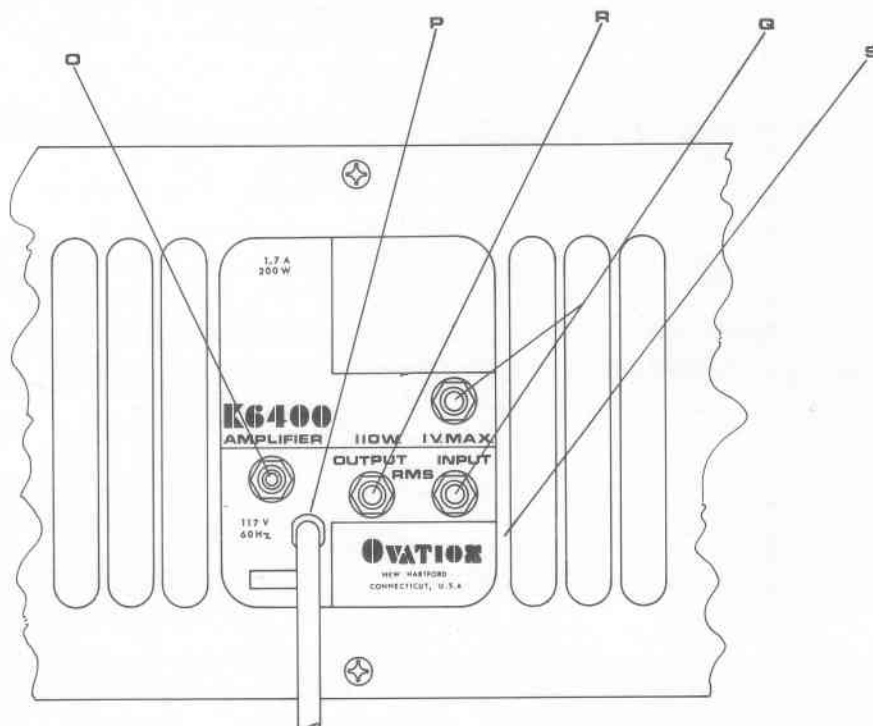


Figure 2. Controls and Indicators on Rear Panel of Pre-amp/Power Amp

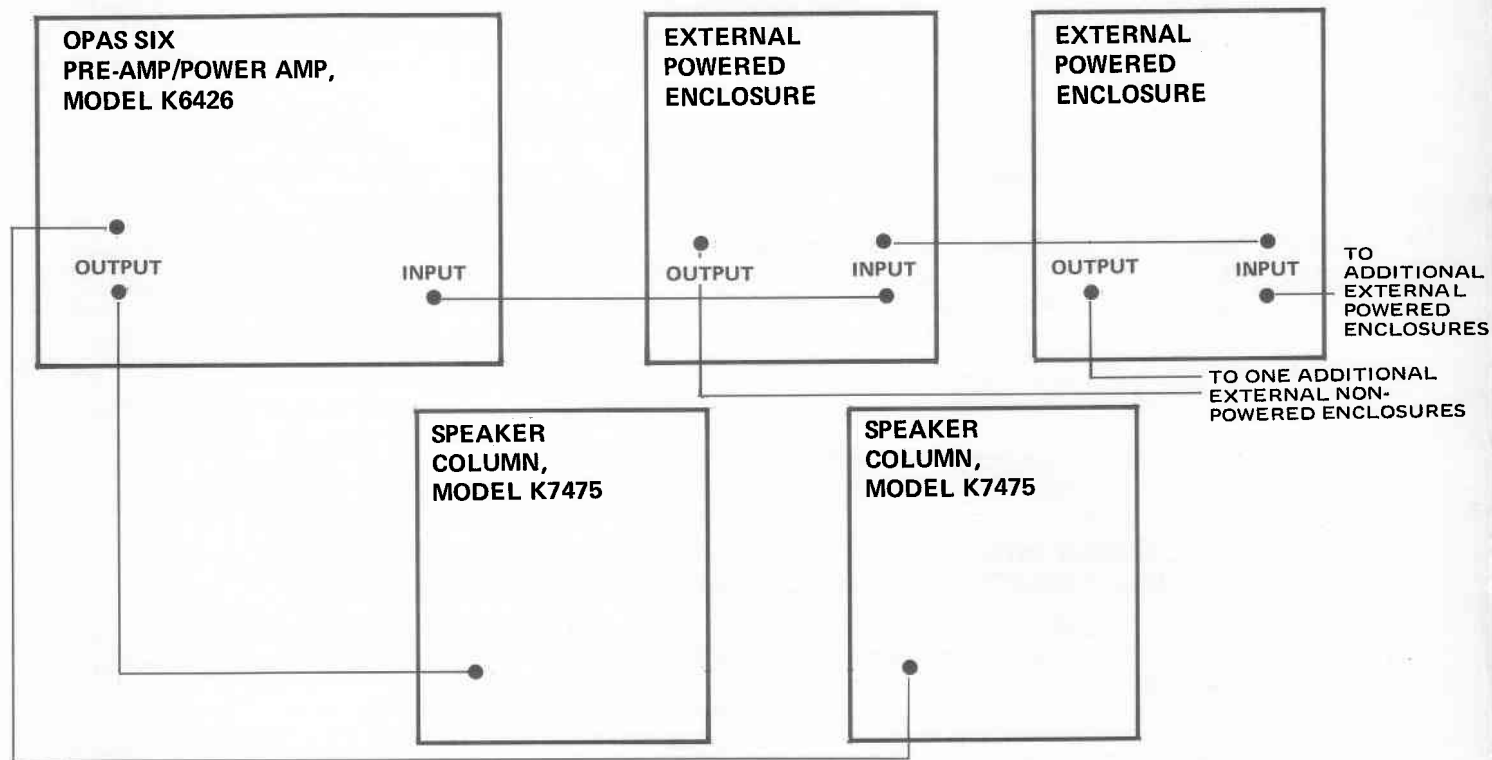


Figure 3. Typical Connections of OPAS SIX System Components with External Enclosures

SPEAKER COLUMN (See Figure 4)

- T. OUTPUT JACKS (RED)** — Four red OUTPUT jacks are provided on the rear of the cabinet for connections with the pre-amp/power amp red OUTPUT jack, between the speaker columns, and with any additional external unpowered enclosures as shown in figure 3. To make these connections, first connect the amplifier OUTPUT jack (red) to the red output jack of the first speaker column. To connect the second speaker column, make a connection from one of the remaining red output jacks on the first speaker column to one of the red output jacks of the second speaker column. Connections to additional unpowered enclosures can be made by repeating this sequence. Use a standard 1/4-inch phone plug with heavy, unshielded cord to make connections.

CAUTION

TO AVOID DAMAGE TO YOUR EQUIPMENT, THE RED OUTPUT JACK IS NOT TO BE USED FOR CONNECTING POWERED ENCLOSURES. POWERED ENCLOSURES ARE TO BE CONNECTED ONLY FROM GREEN INPUT TO GREEN INPUT. THE ONLY SPEAKER UNITS THAT ARE TO BE CONNECTED TO THE RED OUTPUT JACK MUST BE UNPOWERED ENCLOSURES.

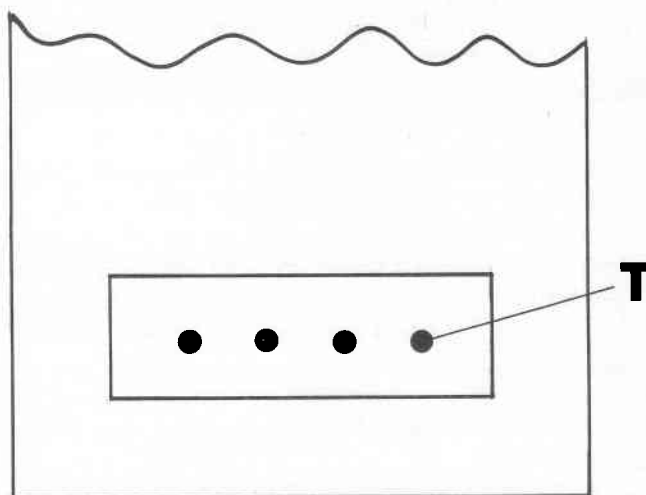


Figure 4. Speaker Column, Model K7475, Controls

Should any questions arise regarding the use of this equipment, contact your local dealer or write to the Ovation Customer Service Department for additional information. Be sure to include the equipment model number and your return address in all correspondence.

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