

Ovation Amplifiers

OWNER'S MANUAL THE CAT III AMPLIFIER 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 THE CAT III amplifier system consists of a pre-amp/power amp enclosure, model K6424 and one of the following separate speaker enclosures:

SPEAKER ENCLOSURE

Model K7463

Model K7465

TYPICAL USE

Bass Guitar

Rhythm or Lead Guitar

The two-channel, solid-state, pre-amplifier is mounted at the front of the enclosure and is equipped with individual bass, volume, reverberation, and treble controls for each channel. Tremolo controls are provided for one channel only. Remote control of reverb and tremolo is possible through a foot switch jack provided on the front panel.

The BASS control offers the added versatility of BASS SHIFT which lowers the bass response by 10 db to provide a second range of low frequency response. In a similar manner, the TREBLE BOOST feature increases TREBLE response by 10 db to include two levels of high frequency response.

The tremolo effect can be operated both as normal tremolo and as TREMOLO BURST. In normal tremolo operation, the volume level increases and decreases smoothly at speeds ranging from about 3 to 12 cycles per second as shown in figure 1. TREMOLO BURST, on the other hand, increases and decreases the volume level sharply. The volume level is held down for an extended period in TREMOLO BURST instead of only momentarily (see figure 1), causing an effect similar to that of a tape repeater.

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.) Input jacks for the same channel on all Ovation pre-amplifiers have the same sensitivity, permitting simultaneous operation of more than one instrument per channel.

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.

Isolated dual input jacks in each channel allow more than one instrument to be played through each channel. An OUTPUT jack on the rear of the control panel is required for normal operation with either speaker enclosure (model K7463 or K7465). 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 load (225 watts of music power). Frequency response is 20 to 20,000 cycles \pm 1 db, with a noise level better than -60 db at full-rated power.

The speaker enclosure contains a mid-frequency driver and horn in addition to either two 15-inch speakers (model K7463) or four 12-inch speakers (model K7465). The horn is provided with a level control. Four jacks at the rear of the cabinet permit the speaker to be connected to the pre-amp/power amp and to other unpowered enclosures.

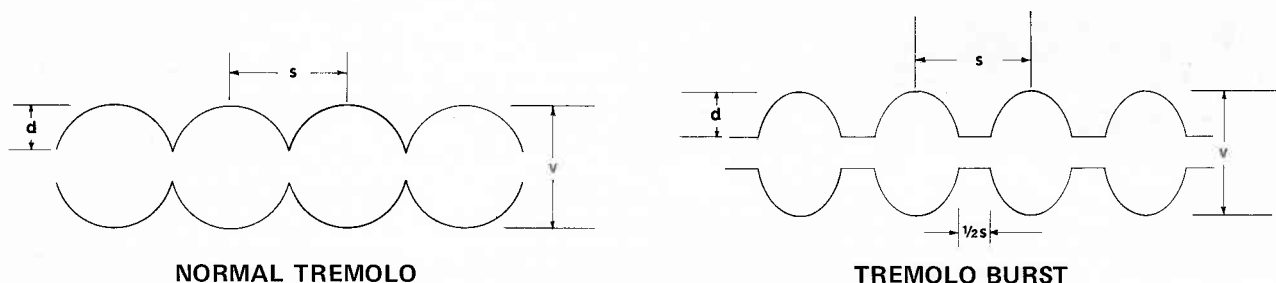


Figure 1. Audio Signal Showing Normal Tremolo and Tremolo Burst Effects.

- d — depth; the amount (intensity) the volume level is decreased (up to about 80% of VOLUME control setting).
- s — speed; the rate (frequency) at which the volume level is increased and decreased. The length of s becomes shorter as speed increases.
- v — volume; loudness (volume) level of audio signal, selected by VOLUME control.

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 2 and 3 for location of controls and components.

SETUP & ADJUSTMENT

1. Place the pre-amp/power amp 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 |
| BASS* | 5 |
| VOLUME* | 0 |
| TREBLE* | 5 |
| REVERB* | 0 |
| TREMOLO SPEED | 0 |
| TREMOLO DEPTH | 0 |

*One control in each channel

3. Connect red output jack on speaker to red OUTPUT jack on rear of pre-amp/power amp according to information in Controls and Indicators section of this manual.
4. Set the horn volume control to fully counterclockwise position.
5. Connect power cord to 117-volt, 60-cycle electric outlet.
6. 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.
7. Connect your electric instrument(s) into the desired channel input jack(s).
8. If external powered enclosures are to be used, connect into **green** INPUT jack according to information in Controls and Indicators section. **OBSERVE CAUTION.**
9. If additional external unpowered enclosures are to be used, connect into **RED** jacks on rear of speaker cabinet according to information in Controls and Indicators section. **OBSERVE CAUTION.**
10. Slowly adjust the BASS, VOLUME, TREBLE, REVERB, and TREMOLO controls to achieve the desired audio effects. Adjust according to information in Controls and Indicators section.
11. Slowly adjust horn volume control to achieve the desired effect. Adjust according to information in Controls and Indicators section.
12. Connect foot switch into FOOT SWITCH jack, if a 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 foot switch from FOOT SWITCH 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 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 setting. 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 2)

- A. TREMOLO DEPTH CONTROL — The TREMOLO DEPTH control varies tremolo intensity (d in figure 1) in CHANNEL A only. Tremolo effect is turned on by pulling the DEPTH control knob out. Turning the DEPTH control to the right from 0 (clockwise) increases tremolo intensity (volume level can be decreased up to about 80% of VOLUME control setting).
- B. TREMOLO SPEED CONTROL — The TREMOLO SPEED control adjusts the tremolo rate (frequency) in CHANNEL A only (s in figure 1). Turning the SPEED control to the right from 0 (clockwise) increases tremolo speed from 3 to 12 cycles per second. Pulling the SPEED control out operates the TREMOLO BURST effect and is adjusted in the same manner as SPEED. In the TREMOLO BURST effect, the volume is increased and decreased sharply and is held decreased for an extended period (see figure 1). The BURST effect is similar to that of a tape repeater.
- C. 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. BASS SHIFT is operated by pulling the BASS control knob out and is adjusted in the same manner as BASS. This changes the response curve from rhythm or bass guitar (BASS control pushed in) to lead guitar (BASS control pulled out).
- 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).
- E. 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. Pulling out the TREBLE control knob increases the high frequency response of the amplifier (TREBLE BOOST). TREBLE BOOST response is adjusted in the same way as TREBLE (control knob pushed in).
- F. REVERB CONTROL — Each channel has a REVERB effect control that is turned on by pulling out the REVERB control knob. When the REVERB control is turned right from 0 (clockwise), reverb intensity will increase.
- G. FOOT SWITCH JACK — The FOOT SWITCH jack accepts the plug on the Ovation model K9606 foot switch for turning reverb and tremolo on and off. The foot switch is not required for operation of the pre-amp; however, it provides remote control of the pre-set reverb and tremolo effects.

To use the foot switch to your best advantage: first select the setting desired for reverb and tremolo; then plug the foot switch into the FOOT SWITCH jack.

The single switch on the foot switch labeled REVERB and TREMOLO is a sequential type; that is, each time the switch is pushed in, it will alternately turn the desired effect on or off.
- H. DUAL INPUT JACKS — Each channel has dual input jacks to allow one or more instruments to be played through each channel simultaneously. Both input jacks for the same channel have the same sensitivity at all levels. Use a standard 1/4-inch phone plug with shielded cord to connect electric instruments.
- I. 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.

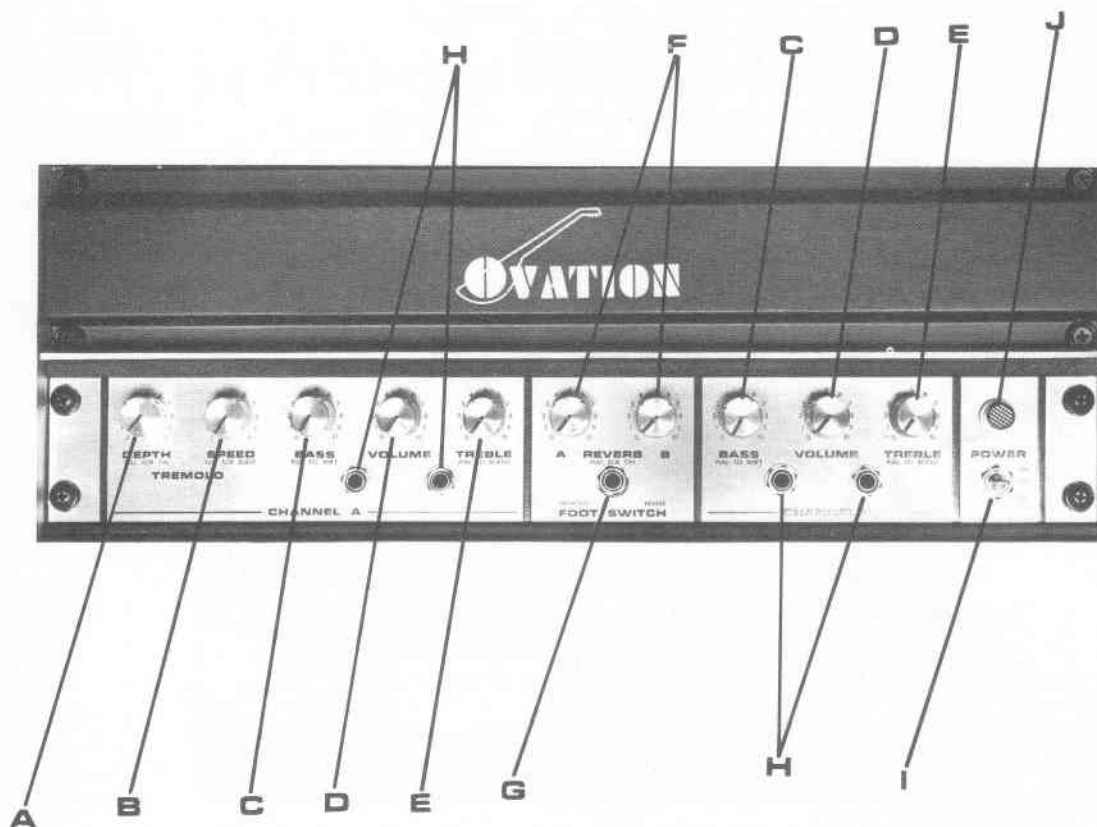


Figure 2. Controls and Indicators on Front Panel of Pre-amp/Power Amp

- J. **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.
- K. **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.
- L. **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.
- M. **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 4. If a second external powered enclosure is to be connected, make a connection from the remaining green input jack on 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.

- N. **OUTPUT JACK (RED)** — The red OUTPUT jack is required to drive speaker K7463 or K7465, and any other unamplified speakers or Ovation Freq-Lites (see figure 4). The red OUTPUT jack will accept a 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.

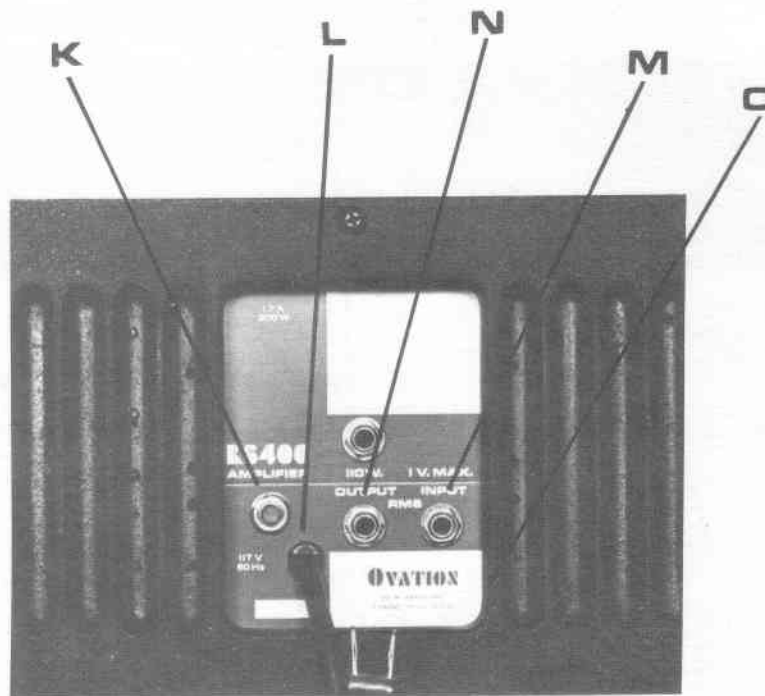


Figure 3. Controls and Indicators on Rear Panel of Pre-amp/Power Amp

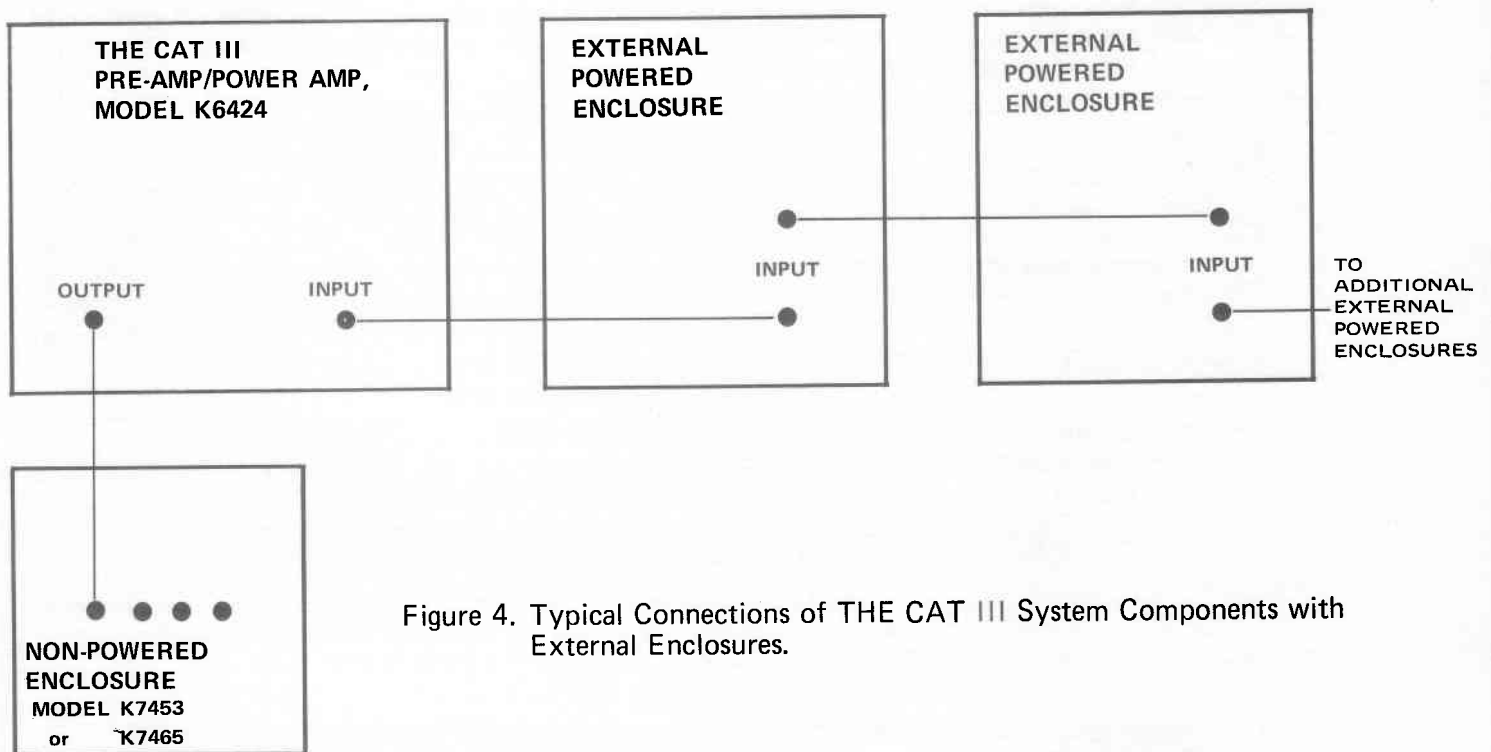


Figure 4. Typical Connections of THE CAT III System Components with External Enclosures.

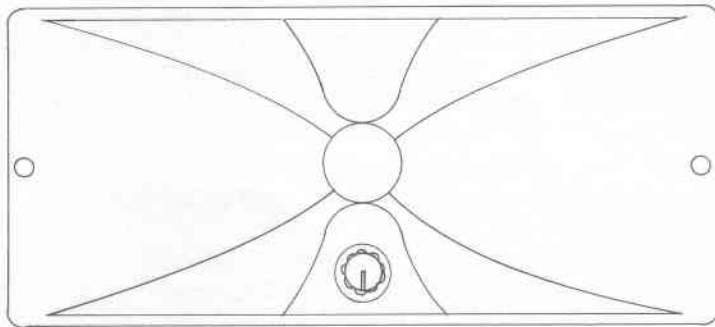
- O. **HEAT SINK** — The finned heat sink provides safe transistor operation under prolonged high output usage. To receive maximum life of the amplifier components, **BE SURE THERE IS SUFFICIENT AIR SPACE AROUND THE HEAT SINK TO ALLOW GOOD VENTILATION.**

SPEAKER ENCLOSURE (See Figure 5)

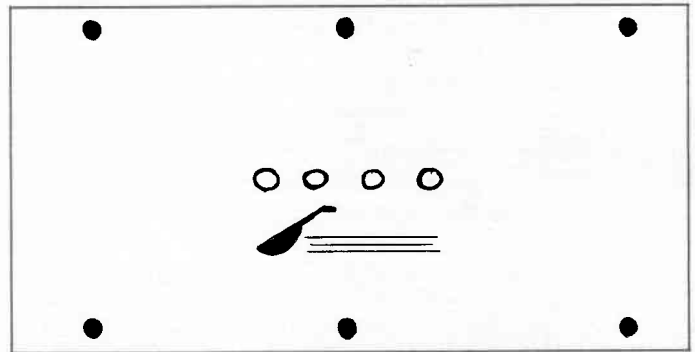
- P. **HORN VOLUME CONTROL** — The horn volume control on the front of the enclosure regulates the loudness of the mid-frequency horn. Volume increases as the control knob is turned clockwise.
- Q. **OUTPUT JACKS (RED)** — Four red output jacks are provided on the rear of the cabinet. One jack is used to connect the speaker enclosure to the red **OUTPUT** jack on the pre-amp/power amp; the remaining jacks may be used to connect additional external unpowered enclosures as shown in figure 4. 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 UN-POWERED ENCLOSURES.



P



Q

Figure 5. Speaker Enclosure, Model K7463 or K7465, 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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