Chapter 15
Troubleshooting Guide

Troubleshooting

There is very little that can go wrong with your Audicy once it is properly installed. But nothing lasts forever, and any electronic component can misbehave or be affected by flaky power conditions (or flaky operators).

Very brief power failures may force the entire system to reset. If this happens, try to Edit Old your production[1]. Frequently, the Audicy will be able to rebuild the files. Be patient: This may take a few minutes.

Many problems can be quickly diagnosed and fixed by studio personnel. If you think something isn't working properly, check the Message Window for advice. If that doesn't help, press the *Help* button. Advanced functions, such as Digital I/O and SMPTE, have additional help: use the Studio menu to find their setup screen and press *Enter*. Then, when the setup screen appears, press *Help*.

We've divided this chapter into categories to make it easier to troubleshoot specific kinds of problems:

- A quick troubleshooting chart. You may want to make a copy of this chart to keep near the unit.
- An alphabetical list of Error Messages you might encounter
- Audio Problems
- Mechanical Problems
- Parts replacement

[1] If this happens a lot, get a U.P.S.: See Chapter 14.

Quick Troubleshooting Chart

SYMPTOM:	CHECK THIS:	COMMENTS: [2]
No screen display.	Is the monitor turned on?	Use monitor power switch, located below the screen.
	Is the monitor LED lit?	If it is, adjust brightness and contrast controls. If it isn't, check AC power source.
	Is the monitor cable connected?	Make sure the screws on all connectors are tightened. Check for bent pins on the monitor cable.
	Is the power LED on the System Unit lit?	If not, system power supply may be damaged. Consult dealer.
Screen lights but Job Control screen does not appear.	System may have loaded badly.	Restart computer: Press *Ctrl*, *Alt*, and *Delete* simultaneously on the pullout keyboard; *or* Press *Reset* button on System Unit; *or* Turn it off and try again.
System won't boot up.	Possible SCSI problem.	Check that Active SCSI Terminator has been connected to the rear of the System Unit. If using an External DAT or Jaz drive, check that the last device in the SCSI chain is properly terminated.
	Hard disk might be disconnected or damaged.	Check and reseat hard disk SCSI and power cables. Consult dealer or Orban if problem persists.
Screen display is weak or colors distorted.	Are speaker magnets too close to the Video Monitor?	Move speakers, or use speakers with shielded magnets.

[2]Some of the suggested solutions involve SCSI terminations or reseating cards in your System Unit. Instructions appear under specific error messages, following this chart.

	Has video monitor been in continuous use for several years?	Monitor is old and needs to be replaced.
	Check for bent pins on the video cable.	Straighten out pins, reseat video cable.
Job Control screen appears but Console won't light.	Check cable connections to Console. Check Console power supply.	
	Console fails power up self-test.	Usually caused by loose cable connection, faulty extension cables, or buttons being held down during startup.
Audicy won't let you start a new production.	Turn it off and try again.	Hard disk might be damaged. Try running the Check up utility in the Job Controller.
	DSP or other component card has become unseated during transit.	Reseat cards and reseat cables which connect DSP card to Audio Module and RAM Control Modules.
Audicy does not pass audio.	Is system in Production mode? Are Input Faders up? Is the *Mute* button pressed?	Your Audicy won't pass audio when the Job Controller screen is showing.
	Does signal appear on the Left and Right Input meters?	Check input connections. Bypass Audicy by connecting input and output cables together.
	Is the proper signal selected in systems with Intelligent Digital Module?	Check the first window in the Status Bar to see if Audicy is looking for Analog, AES/EBU, or s/pdif. Change by pressing *Input* button.
	Check Analog Module fuse.	Fuse is located in System Unit in Audio IO Power Module. Replace with 3A 3AG quick-blow.
Audicy passes audio but sounds "flanged," or you get feedback when you turn on inputs.	Check for feedback loop.	See "Console Installation," in this manual. If you patch the output of Audicy into the same program bus you feed it from, you will get feedback if the input monitors are on.

Lots of noise, hiss, crackling.	Levels have not been properly set between Audicy and other equipment.	Adjust the Audicy's input sensitivity switches on Analog Module. Connect attenuator to Audicy output.
Audicy does not record properly.	If channels are reversed or in mono, check the input routing.	Routing is displayed over the input level meters. Press *Alt+Input* to change routing.
	If levels are not what you expect, check the system is in Normal, rather than Bounce record mode.	Bounce mode is indicated on the Status Bar. Press *Bounce* to change modes. Input faders attenuate input signal in Bounce mode.
Record is ok, but playback of audio has noise and crackle.	Check seating of short cable connecting Ram Modules to DSP Engine: Check Ram Module seating.	If reseating doesn't help, cable may or RAM module be defective.
Tracks don't mix properly.	One or more tracks might have phase inverted.	Check Phase Invert under Patchbay menu.
Mono bounce results in signal loss.	Is source track panned all the way left?	Left output is the source in a mono bounce, unless other input routing is selected.
Library clips off ends of sounds.	Splice length too long, or edit points wrong.	First undo, choose standard or quick cut, and try again, or alter the Source in/out points.
DAT tape won't eject.	Make sure the DAT drive isn't in use.	Press *Esc*; return to Job Control screen and try again.
DAT tape is not recognized by system software.	Conflict in DAT system. Can be caused by trying to eject tape before drive is ready.	Restart computer: Power system off, then on. In future, eject tape only after lights on DAT drive stop flashing.
	DAT tape is audio DAT, or has not been prepped for Audicy use.	Use a new 60M DDS data DAT tape.
External DAT or JAZ drive won't work at all.	Drive's power switch is turned off.	Turn off Audicy. Turn on drive power. Turn Audicy back on.
JAZ disk can't be read.	Disk has not been prepared.	Use the Prep Disk menu choice in the Job Controller.

System with external DAT or JAZ drive unreliable: "Disk Error" messages seen or system fails to start.	Check SCSI cable and terminator. Test if system works with terminator plugged directly into the back of the System Unit.	Use only the highest quality SCSI cables and active terminators. Keep external SCSI cable lengths as short as possible. Replace cables or terminator if necessary.
Productions have file corruption.	Bad SCSI cabling or termination.	Check SCSI chain: replace SCSI terminator.
	Files were corrupted by unknown event.	Run Check-Up utility to fix corrupt files.
System fails soon after a software component installation.	Installation did not complete properly.	Reinstall the software: *use Cntl-Alt-F1* to force reinstallation.
System hangs during software installation.	Defective installation disk.	Try to reinstall, if unsuccessful, call Orban or dealer for replacement.
	Defective or intermittent floppy drive.	Try reinstall, if unsuccessful, replace floppy drive. Note that drives which are seldom used may fail, but eventually work after several attempts.
	Defective installation disk.	Check disk on a desktop PC (be careful of virus transmission!) Contact Orban for a replacement if necessary.
System doesn't recognize floppy drive.	Problem with CMOS setup.	Change CMOS so drive A: is set as 1.44MB 3.5" drive.
System fails soon after being moved.	Boards have become unseated in transit.	Open System Unit, check board and cable seating.

Error Messages

A few of these Error Messages indicate bad connections, usually the result of vibration or mechanical shock. Some of these errors can be fixed by just re-plugging one of the interconnecting cables. But others require that you open Audicy's System Unit and reseat an internal cable or card, and some may be related to component failure.

Important Warning! There are dangerous voltages inside the System Unit which can present a hazard when the cover is removed.

Be sure to disconnect the power before removing the cover, and replace the cover before reconnecting the power. Don't attempt internal repairs unless you're

comfortable with board-level maintenance inside a computer. Be sure to follow static-control procedures.

Error Message 2003 (or 2004, or 2005)

These messages may occur during startup, and indicate a problem with the serial communications card inside Audicy's System Unit. To fix it:

A) Turn Audicy off, and disconnect the power cable.

B) Locate the 25-pin connector on the System Unit, where the Console cable plugs in.

C) Open the System Unit and look at the back of the connector.

   There is a small, flat ribbon cable running from the connector to a circuit card. This is the serial communications card.

D) Remove the screw that holds the card's mounting bracket, and re-seat the card.

E) Make sure the ribbon cable is firmly connected to the card.

   The ribbon cable has a red stripe on one edge, and that stripe should be on your right when looking at the card.

F) Press the red Reset button on the outside of the System unit, to reboot Audicy.

If the error message is still displayed after you reboot, the card may be defective. Contact Orban for a replacement.

Controller Failure Detected (Error 2016)

This message may also occur during startup, and indicates that the System Unit is having trouble downloading software to the Console. It could be as simple as a disconnected power plug.

A) Check the Console power module. Be sure that the "LED" on the module is lighted. If not, the module's AC cord may have been disconnected.

B) If the LED is on, check the DC power cable and connector to the back panel of the Console. If this connector is loose, the Console will not have power.

C) Check the cable connecting the Console to the System Unit. This cable has a 9-pin connector at the Console, and a 25-pin connector at the System Unit. Both ends should be held firmly with their locking screws.

DAT Tape Unrepairable

This message may occur when one of the Backup or Archive forms is open, and usually isn't as bad as it seems. In general, you can fix it by closing the form, then rebooting the system.

- To avoid this problem, never try to eject the DAT tape during any DAT-related operation, including when any of its forms are open.

Here's how the problem can occur: Audicy sends a software lock to the tape drive during DAT operations so the tape can't be ejected. But the drive's firmware has a built-in feature that lets you eject the tape in emergencies by pressing the Eject button three times. Once this happens, the DAT deck enters an emergency condition and you can't access any DAT functionality until the system has been rebooted.

Even a single press of the Eject button can start this sequence, if you press it while Audicy has the drive locked. If you open up a DAT form and press Eject, and then close the form, the drive's firmware will be looking for two more presses to start the emergency eject. The only cure is to reboot.

Important: Never try to eject the tape in any DAT-related form, or during any DAT operation.

Drive Not Ready — Insert Boot Disk In Drive A

This message may occur in the DOS startup screen, in the first few seconds after power-up. If you see it, there's probably a problem with SCSI — the high speed parallel bus that Audicy's CPU uses to communicate with its hard drive and any external Jaz or DAT drives. The most common cause is a missing terminator. This is a plastic plug with a Centronics-type connector. If this terminator plug is not installed, data from the hard drive may be distorted and unreadable.

- If you don't have an external drive, the terminator must be securely plugged into the SCSI jack on the back of Audicy's System Unit.

- If you have an external DAT or Jaz drive, there's a thick cable running from Audicy's SCSI jack to a SCSI jack on the drive. Plug the terminator into the other SCSI jack on that drive.

- If you have more than one external drive, they should be connected in a daisy-chain. Plug the terminator into the empty SCSI jack on the last drive in the chain.

If the terminator plug is properly installed, but you still get this error message, an internal cable has probably become unplugged:

A) Turn Audicy off, and disconnect the power cable.

B) Open the Audicy System Unit.

C) Check the ribbon cable that connects from the back of the internal hard drive to the disk control card: this is the card that has a SCSI jack showing through the back of the tower. Make sure it's securely seated both at the card and at the hard drive.

Note that the SCSI card also has a ribbon cable connecting it to the floppy drive.

D) Also check the hard drive power cable. This cable has four wires (2 black, 1 red, 1 yellow) with a small plastic plug at the end, and should be securely plugged into the back of the drive. You should hear the drive spin up to full speed when power is on. If you don't hear this, the power cable could be disconnected or bad. Try swapping it with a different connector.

Effects Processor Not Available

Each of Audicy's real-time internal effects requires a slice of signal-processing time. The more effects you're using, the more slices you require; if you ask for too many effects the DSP might not be able process them all quickly enough to keep up with the audio signal. There's a full discussion of this in Chapter 7, but as a quick overview:

- You can free up processing power by deselecting effects on other channels.

  To keep the sound of an effect, bounce that channel to another channel — or to itself — before deselecting the effect.

- If you need reverb on a number of channels, it's most efficient to use the effects submix and place the reverb in the Submix Return.

- Install Orban's optional FX Turbo Rack for a 300% increase in effects processing resources.

Reverb Processor Not Available

This is essentially the same error as Effects Processor Not Available, above, and the cure is the same.

Reverbs use specialized processors, and you can run out of reverb processing time even while there's enough power for additional equalization or compression.

Patch Effects System Has Lost Audio

This error may come up if your Patch and Effects system is not functioning properly. In this case, some audio samples may get lost and there may be some audio corruption. Check your production elements carefully. While the rest of Audicy should be functioning properly, we suggest that you let shadowing complete, exit, and reload.

This problem may be temporary and should go away the next time you start or restart a production. If it persists on all productions, your DSP Engine may be defective.

FX Engine Dead

This message may occur because the DSP Card has gotten loose, or has failed.

A) Turn Audicy off, and disconnect the power cable.

B) Open the System Unit and locate the DSP Card.

   This is the card with two ribbon cables connected to it: one at the center, and one at the right end.

C) Remove the card completely, then carefully reseat it.

D) Make sure the two ribbon cables are reattached.

If this does not correct the problem, the DSP card may be defective.

Hardware Disk Error

Audicy is able to detect errors on the hard drive by monitoring the data flow off the drive. We use a very reliable hard disk system, but hard disks do have moving parts and can fail. In some cases, you may or may not be able to continue editing depending on the severity of the error. Since the disk system may be unreliable, it's a good idea to back up your audio tracks on an external recorder.

Try returning to the Job Controller and running the Check Up utility. If problems persist, please write down any error messages and the circumstances of any failures before you contact Orban technical support.

Prep DAT Error Message

This can occur when you're trying to Prepare an archive DAT tape for productions or library sounds, and indicates that Audicy is having trouble reading or writing to the DAT drive.

A) Make sure the drive is turned on when you turn Audicy on.

B) Be sure the SCSI terminator is properly installed. See Drive Not Ready, above.

C) The tape itself may be defective; try another one.

D) The drive may be dirty. Insert a DDS DAT cleaning tape[3] and run if for one cycle. Then try Prepare again.

E) The drive may be old and worn out. If your drive fails with new tapes, and cleaning doesn't help, its probably time for a replacement

[3]One came with your DAT Archive system, and additional ones are available from computer stores. For instructions on using it, see Chapter 9.

Tape Is Not A DATA-DAT Tape, or Tape Is Corrupted and Unreadable

These errors might occur during a production or library Backup or Restore, or when checking DAT Usage. Its possible your tape has become unreadable due to excess wear. See Prep DAT Error Message, above.

Warning: AIOM System (Transport) Failure

You may see this error if the system experiences a failure in the Audio Input/Output Module, which also controls audio timing. To attempt to fix:

A) Select Studio:I/O Setup and press *Shift+Enter*. This may restart the module.

B) If it doesn't, allow shadowing to complete and then quit immediately. Most likely all of your audio and edits will be saved.

C) Reboot Audicy. If the problem persists, there may be a hardware failure, or power or data cables to your Audio Module may have become unseated.

Warning: Edit Reload Error

If you see this message, it may indicate a problem with your hard disk, or that a critical file has become corrupt. This could be a matter of board seating. In some cases the system will try again to load the production, but there is some risk that the production will be corrupted. If unsure about continuing, abort the reload and restart as an old temporary production. Try running the "Checkup" utility, to clear up any corrupt files. In cases where irreplaceable audio is at stake, contact Orban technical support, and there may be some chance of recovery.

Warning: Internal Editing Failure

This is extremely rare, and occurs if Audicy detects a failure in the internal editing system while trying to perform an edit operation. Generally, your edit is aborted. You may be able to continue work a production where this error occurs, but you note any error message numbers in the event that you need to call Orban technical support.

Warning: General Initialization Failure

This error message may come up due to a problem in the hardware and startup initialization sequence. If you have recently transported the system unit or have had the cover open, check to make certain all internal boards and cables are correctly seated. In most cases, this error is hardware related, and due to cable or board seating.

Warning: Insufficient Audio Memory

In some cases, you may see a message like this, informing you that you have run out of system memory for recording. The following are some audio memory recovery strategies.

Free up audio memory by cutting or erasing tracks or track portions you don't need. Generally, if you aren't going to use it in the mix, cut or erase it! If all you need is enough audio to make a few more splice crossfades, erasing an announcer's cough may provide you with the crossfade capacity to finish a production. If you need more recording time, erase unused tracks. Remember that because of the Audicy's *Undo* feature, it will take 2 cut or erase edits for freed audio to appear in your "fuel gauge."

Be careful not to use audio memory unnecessarily. If you need to use a library sound twice in the same production, retrieve it once and make a copy. The copy will only use audio memory for its crossfades, while the library sound will use its length in real time track minutes. Remember that whenever the *Record* light is lit, when you do a library dub, or when you use a Studio effect such as time fit, you are using audio memory.

Warning: ISR/DSP Hardware Failure

This error may appear if the system has experienced a significant hardware or low level failure, possibly because of shock or vibration It may be impossible for you to continue working on a production because of this error. If you still have transport or cursor control, attempt to back this production up to an external tape or DAT machine. You may be able to recover from this problem by quitting and reloading the production. If you have recently opened or transported the system unit, its possible that some boards or cables are not properly seated. If this problem persists, even after checking board seating, you may have a hardware failure in your DSP engine.

Warning: System/DSP (Transport) Failure

This warning may occur if the system experiences a failure in the hardware that controls the transport and editing functions. If you see this in a production, exit immediately, attempting to save what you can for later use. If the transport is running, press S on the keyboard to stop. You may try re-starting the system, but it's likely there either a board seating problem or a severe hardware failure that will require factory service.

Warning: Total Reload Failure

A total reload failure is very rare, and may indicate a problem with your hard disk, or a file corruption. In cases where the production is critically impaired, it may be impossible for the software to reload it. Even though the software has many utilities that can restore or interpolate the missing or corrupted data, some corruptions are severe enough that it they be restored. In cases this extreme, the

most efficient thing to do is often to erase the corrupt file and start over. In cases where irreplaceable audio is at stake, contact Orban technical support, and there may be some chance of recovery.

If you get this severe a failure with any frequency, your system has a hardware problem and needs factory service.

Audio Problems

Static and/or Distortion During Playback (Occurs in New or Old productions)

Be sure that the SCSI terminator is installed. See error message Drive Not Ready, above.

If this does not correct the problem, you will need to open the tower and re-seat the DSP and RAM Control cards. It's a good idea to make a sketch of all the cards and their cable positions before you remove them. Be careful not to alter any dip switch settings on RAM cards, as these address how memory is stored.

Important Warning! There are dangerous voltages inside the System Unit which can present a hazard when the cover is removed.

Be sure to disconnect the power before removing the cover, and replace the cover before reconnecting the power. Don't attempt internal repairs unless you're comfortable with board-level maintenance inside a computer. Be sure to follow static-control procedures.

A) Turn Audicy off, and disconnect the power cable.

B) Open the System Unit and locate the DSP card.

   This is the long card with two wide ribbon cables connected to it: one at the center, and one at the right end.

C) Remove the center ribbon cable from all the cards

D) Remove the DSP card completely. Inspect it for loosely seated chips or components, then carefully reseat it.

E) Make sure the ribbon cable on the right end of the DSP card is properly attached. Check the ribbon cable for loose headers. Often, a bad ribbon cable can be the source of the problem

F) Locate the one or more RAM Control cards

   These are the long cards immediately below the DSP card, and were also connected to the center ribbon cable removed in step C.

G) One at a time, remove each RAM Control card. Inspect each for loosely seated chips or components, then carefully reseat it.

H) Reattach the ribbon cable you removed in step C.

I) Note that in some cases, you may have luck getting the system running again by moving cards to different, unused slots, or by moving a RAM Control card to a lower slot so that it attaches to a different header on the short DSP ribbon cable.

Mechanical Problems

DAT Tape Won't Load/DAT Tape Is Immediately Ejected

Turn off the power to the drive and restart it (if it is an external drive). If it is installed in the Audicy tower, turn off power to the complete system and re-start. If the drive still does not allow you to load the tape, be sure that the tape is a DATA tape, not an audio tape. The tape should be marked "DDS Data Cartridge". Note that this drive will accept only the "DDS-1" tapes. "DDS-2" tapes can not be used.

Replacing Parts

The only parts that can burn out are fuses, lamps, and the CRT display. Switches, faders and knobs are of the highest quality, and designed for demanding production environments. If switches ever do fail, the Console was designed to make switch repair a matter of changing a component board, in order to minimize down time. Component parts may be obtained from Orban or your dealer.

Fuses

There is one fuse in the Audicy system, located in the Audio IO power module. The Audio IO power supply is located below the Analog Input Module, and shares the same chassis as the Digital IO Module (if installed). To open up the System Unit, see the instructions under "Setting Input Sensitivity" earlier in this chapter.

The fuse for the Power Module can be seen from the back of the module once the System Unit's case has been removed. Replace it with a 3AG, quick-acting fuse. If this fuse persists in blowing, it is likely a symptom of a power problem. Contact Orban, or your dealer.

You must remove the cover to change fuses. Hazardous voltages may be present.

Be sure to disconnect power before starting, and replace the cover before reconnecting the power.

Lamps

Incandescent switch lamps are conservatively rated for 25,000 hours of life (about three years of continuous operation). But they will burn out, eventually.

Audicy software includes a lamp test feature. The first time the Job Controller screen appears after turning on the system, all Console button lamps and LEDs should light for approximately three seconds. Any that don't light up during this test are probably burned out.

You'll notice that bulbs are mounted in 38 of the Console's buttons. Other switches have LEDs or no lamps at all. A couple of the buttons which contain lamps never light during normal use (such as the *Undo*, *Set* and *Ctrl* buttons). You may use the extra bulbs in these switches as replacements. Extra lamps are available from Orban or your dealer.

Keycaps on buttons that contain incandescent lamps can be removed from the front panel, by gently pulling on them. You can then remove the bulbs with a needle-nose pliers.

Note that you can adjust the intensity of incandescent lamps on the Console by selecting the Defaults menu choice in the Job Controller.

Monitor

Your Audicy utilizes a standard SVGA monitor. If the Audicy display burns out, you can substitute any other monitor of the same video standard. Monitor repairs are available from most computer dealers.

As monitors age, their pictures tend to lose sharpness and brilliance. Like all modern displays, monitors shipped with Audicy constantly shift pixels around on the screen at a slow, imperceptible rate. This automatic screen saver will prevent constantly presented images from getting burned in to the screen. Even if you leave your System Unit powered on 24 hours a day, we recommend you power the monitor off at night, as this will make it last longer.

Buttons

Audicy was designed using the highest-rated components we could find. Even so, Audicy is used in high-pressure environments where operators may tend to punch buttons rather emphatically. So it's possible that after several years, some buttons may simply wear out. The likely symptom will be that a button doesn't do anything when you press it.

Many button functions are duplicated on the computer keyboard. Arrow and Page keys, Enter and Escape all function as you would expect. Other functions include P = ▶, S = *Stop*, and R = *Record*, U = *Undo*, (,) comma = ◀◀, and (.) period = ▶▶. This means production can continue in an emergency by using the computer keyboard.

The Audicy Console contains 7 component boards inside it, 6 of which are mounted to the underside of the Console's top. If a button ever fails, contact

Orban or your dealer and describe which switch has failed so they can determine which switch assembly board needs replacing. While it's possible to remove and replace an individual button, swapping the entire board will minimize downtime. Complete instructions will be shipped with the replacement component.

Button Caps

The first production run of the Audicy Console contained some button caps which loosened up after some period of use, and could have a tendency of come off after a firm press. Orban has re-tooled all button caps to much tighter tolerances, including the opaque white plastic caps, (found on the *Play*-enable and *Transport* buttons) and the blue and green stemmed caps (found on the utility clusters, and arrow buttons). If you are experiencing button caps which come off with too little resistance, you may have some of the older revision. Contact Orban, supply the serial number of your Console, and we can supply replacements.

Where To Go For Service

Contact Orban, or your dealer.

Attention: Service Manager
Orban, Inc.
1525 Alvarado Street
San Leandro, CA USA 94577
Telephone: (1) 510/351-3500
Fax: (1) 510/351-0500
Email: custserv@orban.com
Web: www.orban.com

Before contacting customer support, please have your system serial number, and configuration information from your system's About screen available. Audicy is a complex system with multiple processors, boards and components, so the more you can narrow the problem down before you call us, the better we'll be able to serve you. Be prepared to supply detailed information about the nature of your problem, including error codes which may have appeared on screen. If you can reliably reproduce a problem with a certain recipe, we can often help you faster.

> **Note:** Orban can not support 3rd party components which we have not qualified or tested in the Audicy's unique operating environment. Users who install extraneous hardware or software do so at their own risk.