

# TOPCAT

## Troubleshooting Guide

Symptom		Problem Isolation Steps	Resolution
No multimedia audio is heard	Verify	the Media Connector (MC) power is on and blue LED is glowing.	Verify all connections are snug from the AC outlet to the power input of the Media Connector. If all connections are secure, determine if the outlet is working or test with a known working power supply.
	Check	that the Link LED on MC is green.	If the Link LED is amber, the MC is not registered with the TOPCAT. Follow the Registration Instructions in the TOPCAT manual.
	Check	volume level adjustment on back of MC.	Ensure the volume control is turned to approximately the 12 o'clock position.
	Verify	audio source volume control (computer, projector, iPod, etc) is adjusted sufficiently.	Adjust volume to approximately mid-level position.
	Check	the audio cable connections between the audio source and the MC.	There should be a cable running from the audio output on the audio source to an audio input on the Media Connector.
TOPCAT powers down on it's own when power is first applied to TOPCAT.	Check	to see if MC is turned off (blue power LED is off).	The TOPCAT communicates with the MC even if the power switch on the front is turned off. As long as the MC is plugged in, the TOPCAT will register and communicate with the MC. The TOPCAT will mimic the state of the MC.
No voice is output from speaker	Verify	power LED in middle of Light-speed logo on the ISR module is glowing blue.	If not lit, turn on the MC. If MC is on and there is still no voice, check that power is properly connected to TOPCAT either by an external power supply or hard-wired into building AC circuit. Also check the CAT 5 cable connection to the internal amplifier board and to the ISR.
	Verify	amplifier is operational.	Play media through the MC.
	Verify	the blue LED on wireless microphone is on.	If it does not come on, check batteries for charge and replace them if necessary. Check with known good microphone.
	Verify	the channel A or B LED's light on the ISR sensor with wireless microphone on.	If the LED's do not light, try using a known good mic. If problem persists, troubleshoot ISR module. NOTE: Verify that the frequency of the microphone matches the frequency group of the TOPCAT. G1=white/silver in color mic or marked with "G1". G2=black in color mic and/or marked with "G2".

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	Check	volume level adjustment on back of wireless microphone.	Volume level may need to be increased. To obtain the mid point, push the 'up' button 9 times, then the 'down' button 4 times.
	Check	volume setting on side of TOP-CAT.	Volume should be set at the 11:00 position in a normal sized classrooms (factory setting). Turn up volume until microphone levels are at acceptable levels for the room.
	Verify	audio from other input sources is being played through the speakers.	If there is no audio from other input sources, TOP-CAT amplifier assembly may need to be replaced. If there is audio from other input sources, then troubleshoot ISR and microphone.
Static is heard from speaker	Check	that the battery being used in the microphone is charged and is the proper type.	Install the proper NiMH battery that is fully charged.
	Check	if two microphones are being used that they are on different channels.	If needed, change one microphone to the opposite channel.
	Check	ISR sensor placement.	Evaluate the ISR sensor location in the room and adjust as needed. It may need to be removed from the TOPCAT and located near the center of the room on the ceiling, or centered along a long wall. Avoid placing it near obstructions such as beams, ceiling mounted equipment, suspended lighting, etc.
	Check	that the ISR sensor is located away from possible sources of IR interference.	Direct sunlight and Plasma monitors can adversely affect performance.
Feedback	Check	that the microphone is being worn properly.	The top of the microphone should be worn at the level of the collar bone. Adjust the lanyard accordingly.
	Verify	microphone volume settings.	Microphone volume settings may need to be decreased, or the A/B volume settings on the TOP-CAT may need to be adjusted to a lower volume.
	Verify	that the original microphone works in another room.	If the problem persists in the other room, the microphone is likely the cause of the problem.
Low media volume	Check	that the volume level on the MC is not set too low.	Position the volume indicator at the 12 o'clock position and then adjust as needed for normal operation.
	Check	volume level of audio source.	Increase volume as needed.
Low voice volume	Check	that the microphone is being worn properly.	The microphone should be worn at the level of the collarbone.
	Adjust	volume setting on back of the wireless microphone.	Adjust the volume setting by pressing the volume 'Up' button.

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	Test	a known good microphone on the same channel with the system.	If the volume level remains the same as the original microphone, the most likely cause of the problem is the amplifier or speaker.
Drop-out / intermittent operation	Check	if two microphones are being used that they are on different channels.	If needed, change one microphone to the opposite channel.
	Check	that there is no obstruction between the ISR sensor and the microphone.	Make sure the microphone is not blocked by clothing or turned to face the user.
	Check	ISR sensor placement.	Evaluate the ISR sensor location in the room and adjust as needed. It may need to be removed from the TOPCAT and located near the center of the room on the ceiling, or centered along a long wall. Avoid placing it near obstructions such as beams, ceiling mounted equipment, suspended lighting, etc.
	Check	that the ISR sensor is located away from possible sources of IR interference.	Direct sunlight and plasma monitors can adversely affect performance.
	Check	proper connection of Cat 5 sensor cable.	Make sure the Cat 5 connector is fully inserted and locked into the amplifier and ISR.
	Verify	proper wiring of Cat 5 sensor cable.	If Cat 5 cable has been reterminated, or if a different type third-party cable has been used, the new connector may be mis-wired. Replace with known good cable to verify.
	Check	that a known good microphone works with the system being tested.	If the intermittent operation stops, the original microphone is likely the cause of the problem. If the problem continues, the ISR module is likely the cause of the problem.
	Check	volume level of incoming audio source.	If using the Aux Input of the RMV for media input, reduce volume of input device until drop-out ceases. Note that volume may need to be reduced to as much as 10% of maximum if the input signal is very high. Overdriving this mic level input can cause dropout of signal.
REDMIKE Volume Control (RMV) will not power on	Check	that the correct battery is being used.	Use the Lightspeed NH2A27 NiMH rechargeable sensing battery as it is the only kind of battery that will properly charge with the RMV.
	Check	that the battery is installed properly.	Ensure that the polarity is observed.
	Check	that the battery is charged.	Substitute a known good battery and see if it charges in the microphone. If it does charge, replace worn or defective battery. Typical battery life is 1-2 years.
	Verify	that battery contacts are not obstructed.	Ensure that there is no object preventing good contact between the battery and contacts.

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RMV won't charge	Verify	that the correct battery is being used.	Use the Lightspeed NH2A27 NiMH rechargeable sensing battery as it is the only kind of battery that will properly charge with the RMV.
	Check	that the RMV charging circuitry is working properly.	Substitute a known good battery and see if it charges in the microphone. If it does charge, replace worn or defective battery. Typical battery life is 1-2 years.
	Verify	that the RMV is being seated properly in the cradle charger.	When the RMV is properly inserted in the cradle, the LED on the charger should turn solid red.
	Verify	that the cradle charger is working properly.	The LED on the cradle charger should turn solid red when the microphone is inserted. If no LED's light, try using a known good cradle charger. (If there is a blinking red LED, that indicates a charging error most likely related to improper battery type.)
	Verify	that the cradle charger power supply is not damaged or defective.	Try known good charger power supply.
REDMIKE Share (RMS) will not power on	Check	that the correct battery pack is being used.	Use the Lightspeed NH2APK NiMH rechargeable sensing battery pack as it is the only kind of battery pack that will properly charge with the RMS.
	Check	that the battery pack is installed properly.	Ensure that the polarity is observed.
	Check	that the battery pack is charged.	Substitute a known good battery pack and see if it charges in the microphone. If it does charge, replace worn or defective battery pack. Typical battery life is 1-2 years.
	Check	that battery contacts are not obstructed.	Ensure that there is no object preventing good contact between the battery pack and contacts.
RMS won't charge	Verify	that the correct battery pack is being used.	Use the Lightspeed NH2APK NiMH rechargeable sensing battery pack as it is the only kind of battery pack that will properly charge with the RMS.
	Check	that the RMS charging circuitry is working properly.	Substitute a known good battery pack and see if it charges in the microphone. If it does charge, replace worn or defective battery pack. Typical battery life is 1-2 years.
	Verify	that the RMS is connected to the charging cable and the charging output on the REDMIKE cradle charger or receiver.	Verify that the RMS power switch is off. When the RMS is connected to the charger, the LED on the microphone should turn solid red.
	Verify	that the charge cable is connected properly.	The charger connection is located on the bottom of the microphone.