

# SERVICE BULLETIN

Subject: Rockworx Sub-Woofers

Date: 8/12/98

Distribution: All Rockworx Customers

Bulletin No. EB98-6

In the past few months, some of you have experienced sub-woofer failures. We are concerned about these failures and are prepared to help you prevent them in the future.

You may ask why would Brunswick design a sound system that is capable of damaging speakers. Basically, to bring you the best sound system possible for a bowling center. We use commercial grade sound equipment. This is the equipment used by professionals and is cable of high-powered output. The lane speakers are designed with overload protection built in. This will protect them in most cases. The sub-woofers do not have any built-in protection. This is because of the low frequencies that the sub-woofers operate at. When your Rockworx system is installed, the settings on your system rack are set specifically to give the maximum high output and high quality sound possible with no damage to the system. If these settings are changed after the installation, damage to the sub-woofers may occur.

**Brunswick reserves the right to refuse warranty replacement on any sub-woofer that shows signs of over powering damage.**

In order to prevent any premature damage to your ROCKWORX sub-woofers, the following procedure has been established to enable you to check your sub-woofers from time to time. A system with high-powered sub-woofers can easily be over-driven. Use of this procedure will ensure the Rockworx sub-woofers are operating within the parameters to which they are designed. It will also ensure you get maximum performance out of your system. This is a simple procedure and should only take you about five minutes to perform.

1. Turn on the Rockworx system and turn off all of the amplifiers except for the sub-woofer amplifier.
2. Remove the security cover from the crossover.
3. Since this is a two-channel device, you will need to look at the back and determine which side of the crossover is being used. Then check that the control settings for both channels are set per your *Quick Reference Guide*.
4. On the channel you are using, locate the output level knob marked "LOW" and turn it all the way down (counterclockwise).
5. Next, put the most powerful bass CD you have into your CD player and start playing it.
6. Turn the main volume control of the Rockworx system clockwise to full volume.
7. With one person out on the lane next to a sub-woofer, slowly turn up the "LOW" level control on the crossover. *Listen very carefully for distortion in the sub-woofer.* This will be quite apparent. As soon as that distortion has been established, turn the "LOW" knob slightly counterclockwise to eliminate the distortion.
8. Reinstall the security cover on the crossover and turn on all the amplifiers.

***CAUTION: Many of the CDs available today have a great deal of bass and some even contain warnings to help prevent audio system damage. Brunswick recommends you heed these warnings.***

Once you have followed this procedure, the controls under the wire security cover are critical and should not be touched. You will find a label attached to the security cover that states:

WARNING! TAMPERING WITH THESE CONTROLS  
CAN DAMAGE SYSTEM AND VOID WARRANTY.

This label should inform your employees of the risk in tampering with these controls.

Thank you for your cooperation.



Shawn Butler  
Engineer, Electronic Service Product



Dave Rice  
Customer Service Manager