

## About The Author

Ed Brown's background in the music world is one of such diversity that it is rare that one person can cover so many bases and achieve such a high degree of respect in all areas.

His private percussion studies started at the age of six in eastern Canada and continued from there on. At the age of twelve he began performing in major dance, concert, and show bands. He was percussionist with the Canadian army headquarters band in Toronto during his stint in the service.



Ed worked in the Los Angeles area for 25 years as a professional player in major clubs as both leader and sideman. During this time he also owned and operated a drum shop and became highly respected as a percussion repair technician for both schools and professional drummers. He started tucking calf heads as far back as he can remember. He did much of the percussion repair and modification for many of the area percussionists including those at 20th

Century fox and Universal Studios. During this era he designed and manufactured percussion components and developed several products for Bud Slingerland.

Moving to the northwest he again opened a drum shop and designed and developed percussion stands and accessories under the name of **GOLDLINE® Percussion Products**.

Ed has maintained a private teaching schedule for over 40 years and is highly respected as teacher and mentor. Actively involved with percussion repair in the northwest school districts, he is keeping abreast of new developments, designs, and technologies in the percussion field.

## Preface

This manual has been put together in the hopes that it can serve as a constructive guide for both the non-percussion music educator as well as the percussion educator. You will note that there is a "Quick Information" section providing tuning ranges for timpani, how to measure drums for drum heads, etc. More detailed information pertaining to these items can be found in the section of the manual dealing specifically with these items.

Interest in percussion has grown rapidly in recent years which has resulted in the addition of new and/or expansion of percussion programs at all levels of education. This expansion of percussion instruction and performance in the education system has increased the acquisition of percussion equipment in all areas of percussion.

Percussion equipment has become one of, if not the most, expensive investment in any music program. Maintenance of this equipment should be placed near or at the top of the priority list of the music educator. Repair budgets in many cases have not kept pace with the increased procurement of percussion equipment and in some cases either remains the same or has been reduced, therefore, the music educator should completely familiarize him or herself with the construction, maintenance, and use of this equipment. This manual will be a major help in accomplishing that end.

As a player, drum shop owner, and percussion repair technician, I have tried to answer the most common questions that I have been asked over the years, and provide the music educator with additional useful information in a simple and understandable manner.

Some brand names have been used in the manual, but it is not the intent to recommend one brand over another or overlook brand names that have not been used, but rather to use these names for reference purposes only. The music educator should familiarize him or herself with all brands through exhibits, local music dealers, etc., and use the brands that suit their purpose best.

Ed Brown

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# SECTION 1

## Quick Information

### HOW TO MEASURE DRUMS

Measure the actual shell diameter and shell depth only, not the overall assembled measurement. (SECTION 4)

### HOW TO MEASURE DRUM HEADS

Measure the inside diameter of the flesh hoop which will be the same as the outside diameter of the drum shell it will be mounted on. (Excluding timpani heads)

The outside diameter of the flesh hoop determines the size of a timpano head which will be the same diameter as the inside diameter of the counterhoop. (SECTION 4)

### ORDERING DRUM CASES

Provide the actual shell diameter and depth, drum case manufacturers will compensate for the overall dimension. (SECTION 4)

### HEAD REPLACEMENT

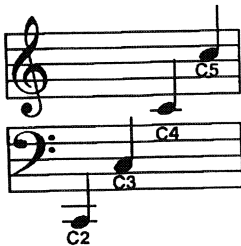
Always apply paraffin wax on the drum shell bearing edge. (SECTION 6)

Always place the drum head logo over the drum shell logo. (SECTION 6)

### SNARE DRUM REPAIR

A 14" drum takes 13" long wire snares, a 15" drum takes 14" long wire snares. (SECTION 7)

### TIMPANI TUNING RANGES



(SECTION 6 and 9)

Timpani Size	Low Note	High Note
20"	A3 E3	D4 (Ludwig) C4 (Yamaha)
22 1/2"	D3 Eb3	A3 Bb3 Premier Only
23"	D3	A3
25"	C3	F#3
26"	Bb2	F3
28"	G2	D3
29"	G2	D3
30"	E2	B2
32"	D2	A2

# SECTION 7

## Snare Drum Repair

(Concert, Marching, & Drum Set Snare Drums)

### Introduction

One of the major problems encountered with snare drum repair is “**OVER-TENSIONING**” of the snare drums.

This is a direct result of extreme tensioning required on marching snare drums. Some students and unfortunately some drum line instructors think that this type of tensioning applies to ALL drums including older marching drums that were not designed to take this type of tensioning along with concert and other snare drums.

As a result, older marching drums including those with wire snares are “cranked” to the point of having the casings break through the drum shell, broken drum shells, bent counterhoops, stretched snares, broken tone controls, broken snare releases, damaged bearing edges, etc., etc. Many times cheater hoops are used to provide additional tensioning once the heads have been stretched beyond reason and the tension rods have “bottomed out”.

Many students think that this senseless process also applies to concert drums and drum set drums so I find the same problems existing in other types of percussion equipment as well.

With most school music instrument budgets at a minimum, band directors should take a very hard look at this problem and take the necessary corrective measures.

The first step is for the band director to determine if the type of marching snare drums that he or she is using are designed to take extreme tensioning. Also, are the type of heads being used compatible with the snare drum. If the drums are not the newer “high-tech” type drums designed to take extreme tensioning, then the students should be instructed in the proper tensioning of heads, snares, and tone controls as well as how to properly select suitable heads. The band director or percussion instructor should keep a constant close watch over this problem.

Second, students should be instructed that this type of tensioning does not apply to concert or drum set drums and should be instructed as to how to properly tune these drums.

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