## I DIOPAN

## Steel Tongue Drums <br> Dual Tone Advanced Magnet 16-Pack

IMPORTANT MAGNET AND CHOKING HAZARD SAFETY WARNING!
Disclaimer: EnSoul Music Designs, Inc. neither assumes nor accepts any liability for damages resulting from the handling or use of magnets. With your purchase, the buyer confirms that you have read and understood the following warnings, the buyer agrees that he/she is responsible for all damages and injuries caused by the magnets, which include personal injuries, property damages and magnet damages. The buyer must agree with the terms before purchase.
Neodymium magnets are very strong. Handling them with care is necessary to prevent personal injuries, property damages and magnet damages.

1. Neodymium magnets are brittle; they can be broken or can splinter in a collision. One should wear gloves and protective glasses when handling these magnets, because splinters and/or spacers could disengage and fly from the magnets.
2. Normal Neodymium magnets will lose their magnetic properties if heated above $175^{\circ} \mathrm{F}\left(80^{\circ} \mathrm{C}\right)$.
3. The strong magnetic fields of neodymium magnets can damage items such as television, computer monitors, credit cards, bank cards, computers, diskettes and other data carriers, video tapes, mechanical watches, hearing aids, loud speakers and VCRs. Pace-makers may be damaged or switch to "Test Mode" in the presence of a strong magnetic force, if a pace-maker or other electrical body implant is in use, keep a minimum of 3 feet distance.
4. Children should not be allowed to handle neodymium magnets as they can be dangerous. Small magnets pose a choking hazard and should never be swallowed or inserted into any part of the body.
5. Under no circumstances should you try to cut, saw or drill the Neodymium magnets! Not only would the magnet break, but the resulting dust from the magnet is very flammable. Neodymium magnets should never be burned, as burning them will create toxic fumes.

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Dual Tone Advanced Magnet 16-Pack

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Magnets are used to tune your Dual Tone steel tongue drum. Magnets are not toys. They are very strong and must be handled with great care. Do not let the magnets slam into each other or your Dual Tone steel tongue drum. Do not place magnets near electronics, such as cell phones. Read the warning on the reverse side before you buy and use the magnets.

The Dual Tone comes tuned to E Major pentatonic B2/B3, E3/E4, F\#3/F\#4, G\#3/G\#4, B3/B4, C\#4/C\#5, E4/E5, F\#4/F\#5 (see the illustration below). The highest pitches on the Dual Tone are C\#3/C\#4, E3/E4, G3/G4, A3/A4, B3/B4, D4/D5, E4/E5, G4/G5 and can be tuned down to G\#2/G\#3, C\#3/C\#4, E3/E4, F\#3/F\#4, A3/A4, B3/B4, C\#4/C\#5, E4/E5 with the included standard magnet pack.

The Dual Tone advanced magnet pack allows you to tune the Dual Tone down to hundreds of other scales. The lowest pitches achievable are G2/G3, C\#3/C\#4, D3/D4, F3/F4, G\#3/G\#4, B3/B4, C\#4/C\#5, D\#4/D\#5 (see chart to right). The advanced magnet pack includes 16 magnets: 2 x-large (black), 4 large (blue), 5 medium (green) and 5 med-small (yellow). The Dual Tone comes standard with: 1 x-large (black), 1 large (Blue), 9 medium (green), 4 medium-small (yellow), 1 small (orange) and 2 x -small (red).
To tune push, or pull, the magnets up or down the tongues, keeping the magnets in the center of the tongue. Add or remove magnets, or change magnet sizes, to further adjust the pitch. When the desired tuning requires two extralarge (black) magnets on one tongue, keep the magnets side by side so they attract each other. Do not stack the extra-large (black) magnets on top of each other. The smaller magnets can be stacked on the extra-large magnets and each on other. When stacking the magnets, keep the largest magnets in contact the tongue and smaller magnets on top. Misaligned magnets will repel each other and will inhibit tuning.

Additional Tuning Tip: To activate a single tongue, without over-tones, simply mute the octave tongue by touching it lightly with your finger.

$\mathrm{O}=$ Outer Tongue $\quad \mathrm{I}=$ Inner Tongue

## Lowest Notes Achievable with the Dual Tone Advance Magnet 16-Pack

| Outer Tongues |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| G2 | C\#3 | D3 | F3 | G\#3 | B3 | C\#4 | D \# 4 |
| $\begin{gathered} 2 \mathrm{XL} \\ \text { (Black) } \end{gathered}$ | 1 XL <br> (Black) <br> 1 Large <br> (Blue) | 1 Large (Blue) 2 Med (Green) | 1 Large (Blue) 2 Med (Green) | 2 Med <br> (Green) | 2 Med <br> (Green) | 2 Med <br> (Green) | 1 Med-Small (Yellow) 1 Small (Orange) |
| Horizontal Do not stack | Stacked | Stacked | Stacked | Stacked | Stacked | Stacked | Stacked |

Inner Tongues

| G3 | C\# 4 | D4 | F4 | G\#4 | 84 | C\# 5 | D\#5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 Large (Blue) | 2 Medium (Green) | 2 Medium (Green) | 2 Medium (Green) | 1 Medium (Green) <br> 1 Med-Small (Yellow) | 1 Medium <br> (Green) <br> 1 Med-Small (Yellow) | 1 Medium (Green) <br> 1 Med-Small (Yellow) | 1 Med-Small (Yellow) 1 X-Small (RED) |
| Stacked | Stacked | Stacked | Stacked | Stacked | Stacked | Stacked | Stacked |

The two flat sides of each magnet represent the North and South polarities (N/S); meaning each magnet has an arbitrary top and a bottom (A.). When stacking magnets on the tongues for tuning, the magnets stay in place better if they are all place with the same side (bottom) against the tongue. It may be helpful to remove all the magnets from the drum and pre-stack them before attaching to the tongues (B.). Create a stack of magnets for each tongue according to the chart above. Set the stacks on a metal surface in a circle with the same layout as the tongues ( $1,2,3 \ldots$ ). Then make sure none of the stacks attract each other; do this slowly and carefully so the stacks do not collide sharply together. If there is any attraction between stacks, flip the stack up-side down and try again. Once all the stacks are properly orientated, transfer them to the appropriate tongue.

Here is a scale database website that will provide hundreds of scales that the Bella can be tuned to with

A.

B. the advanced magnet pack: http://www.dolmetsch. com/pianochords.htm

