### **USER MANUAL**

DRUMTUNE PRO V 1.02 (AND UP)

# Drumtune<sup>®</sup> Pro

-

V 1.02

Drumtune



#### engineered to perform

2013 © All rights reserved by EXALTD. CO. Ltd.





### WELCOME

Thank you for using Drumtune PRO! Please check out our website and join our facebook community to remain updated and be connected with users worldwide.



#### MANUAL

In this document you find relevant information to guide you through the drum tuning process.

This manual will guide you through the interface of Drumtune PRO. The information is bundled per 'SCREEN'. If you would like to find more information on how to use Drumtune PRO or what is the function of a certain aspect of the app's interface, please browse to the related section in this manual to read more about it.

You can also find general drum tuning tricks & tips, along with further background information on tuning your drums in this document.

#### SUGGESTIONS OR TROUBLESHOOTING HELP

In case you have remarks, discovered a software bug, questions, suggestions, good ideas or would like to provide feedback, please be invited to write us an email!

#### BUG REPORTING & SUPPORT

We are motivated to improve Drumtune PRO over time and we welcome your input and user feedback!

Constructive error reports are of great value and much appreciated. Every next release we solve reported bugs in order to improve your experience!

Please contact us at support@drumtunepro.com We'll reply to you as soon as possible.





# **TUNER SCREEN**

### **BATTER/RESO SWITCH**

The 'BATTER/RESO' switch is located in the top left corner of the 'TUNER' screen.

Tap or slide the 'BATTER/RESO' switch to change its position and to choose between tuning the 'batter' drumhead or the 'reso' drumhead of your drum.

#### SELECTING BATTER HEAD

Set the 'BATTER/RESO' switch to 'BATTER' to tune the batter drumhead.

Drumtune PRO displays the 'Target Batter Lug Tone' in yellow above the 'BATTER/RESO' switch, in Hz or Note, depending the position of the 'Hz/ Note' switch in the right bottom corner of the 'TUNER' screen. (Read more in the 'Hz/Note' switch section of this manual.)

The image of the drum at the top right corner of the 'TUNER' screen shows the batter head when the 'BATTER/RESO' switch is set to 'BATTER'.





### **User Manual**

#### **SELECTING RESO HEAD**

Set the 'BATTER/RESO' switch to 'RESO' to tune the reso drumhead.

Drumtune PRO displays the 'Target Reso Lug Tone' in yellow above the 'BATTER/RESO' switch, in Hz or Note, depending the position of the 'Hz/ Note' switch in the right bottom corner of the 'TUNER' screen. (Read more in the 'Hz/Note' switch section of this manual.)

The image of the drum at the top right corner of the 'TUNER' screen shows the reso head when the 'BATTER/RESO' switch is set to 'RESO'.







#### TUNING PRESET NAME

The name of your selected 'Tuning Preset' is displayed under the TUNER title in the center of the top navigation bar of the 'TUNER SCREEN'.

A corresponding 'Drum Tuning Preset Image' is shown at the top right corner of the 'TUNING' screen.

The Tuning Preset Name' shows a number, indicating the diameter and letter indicating the drum type of the preset. The suffix-number at the end of the name, comes in handy when creating several 'Tuning Presets' for a given Type and diameter.

'S' for snare drum, 'K' for kick drum, 'T' for tom and 'FT' for floor tom. The example below is a name for a Snare drum, with a 10" diameter.







#### **TUNING PRESET DRUM IMAGE**

The 'Tuning Preset Drum Image' is located at the top right corner of the 'TUNER' screen.

The 'Tuning Preset Drum Image' represents the drum type of your selected 'Tuning Preset'. (SNARE, KICK, TOM, FLOOR TOM) and also shows which drumhead is selected for tuning.

The batter drumhead is shown when the 'BATTER/RESO' switch is set to 'BATTER'.

The reso drumhead is shown when the 'BATTER/RESO' switch is set to 'RESO'.

Press the 'Tuning Preset Drum Image' to access the 'SETUP' screen of your active 'Tuning Preset' and to edit the settings of the selected 'Tuning Preset'.

(Read the 'SETUP' screen section in this manual to learn more about editing your 'Tuning Preset'.)







### TUNE/EDIT SWITCH

The 'TUNE/EDIT' switch is located in the top right corner of the top navigation bar.

Press the 'TUNE/EDIT' switch in the 'TUNER' screen to access the 'SET-UP' screen and to edit the settings of the selected 'Tuning Preset'.

(Read the 'SETUP' screen section in this manual to learn more about editing your 'Tuning Preset'.)







### HZ/NOTE SWITCH

The 'Hz/Note' switch is located in the bottom right corner of the 'TUNER' screen.

Tap or slide the 'Hz/Note' switch to change its position from Hz to Note or vice versa.

The position of the switch determines how Drumtune PRO displays the tuning values.

Tones are expressed in either 'Hz' or 'Note' as explained below.

#### SELECTING HZ DISPLAY

Set the 'Hz/Note' switch to 'Hz' to display the 'Target Lug Tone', the 'Detected Tone' and the 'Tone Difference' as 'Pitches' in 'Hz'.

#### SELECTING NOTE DISPLAY

Set the 'Hz/Note' switch to 'Note' to display the 'Target Lug Tone', the 'Detected Tone' as 'Musical Notes'; with their corresponding '#/b offset in Cents'. The 'Tone Difference' is also expressed as '#/b offset in Cents'.







### **User Manual**

### **HEADPHONES PICTOGRAM**

The 'Headphones' pictogram is located in the bottom left corner of the 'TUNER' screen.

Press/tap the 'Headphones' pictogram to activate/deactivate the 'Tone Generator' Mode.

NOTE: To have access to the 'Tone Generator' mode, it is required to plugin headphones/earphones into your iOS device.

#### USING TONE GENERATOR MODE

Plug-in headphones/earphones into your iOS device.

Press/tap the 'Headphones' pictogram once, to activate 'Tone Generator' mode.

In 'Tone Generator' mode Drumtune PRO plays the set 'Target Tone' or your defined 'Fundamental Drum Tone' through your headphones.

Listen to the difference between the tone your drum produces and the tone that you hear from the headphones.

Train your ears by comparing the audible amount of 'Tone Difference' with the calculated amount of difference as shown on the display.

Press/tap the 'Headphones' pictogram once again to deactivate 'Tone Generator' mode.







### BOTTOM SIDE 'PULL ICON'

The bottom side 'Pull Icon' is located at the middle of the bottom edge of the 'TUNER' screen.

Swipe the bottom side 'Pull icon' from bottom to top, when in the 'Tuning Preset' mode, 'Undefined Drum' mode, 'TUNER' screen or the 'LUG TUN-ER MODE' screen to access the 'PRESET LIST' screen.

Depending the display resolution of your iOS device, you can use the bottom 'Pull Icon' to navigate through the list of settings (yellow picker menu-buttons), when in the 'SETUP' screen.





### **User Manual**

### **RIGHT SIDE 'PULL ICON'**

The right side 'Pull Icon' is located near the middle of the right edge of the 'TUNER' screen when in 'Tuning Preset' mode.

Swipe the right side 'Pull Icon' from right to left, when in the 'Tuning Preset' mode 'TUNER' screen to access the 'LUG TUNER MODE' screen.







#### DETECTED TONE FIELD

The yellow 'Detected Tone Field' is located to the left of the 'Drum Key Image' in the center of the 'TUNER' screen.

#### See what you hear

When you hit your drumhead, Drumtune PRO analyses the tone it picks up from the built-in microphone of your iOS device . Drumtune PRO displays it as a 'Detected Tone' in the field at the left side of the 'Drum Key Image'.

In the 'Detected Tone Field' Drumtune PRO displays the value of the 'Detected Tone' in either Hz or Note, depending the position of the 'Hz/Note' switch.

(Read more about this in the 'Hz/Note' switch section of this manual.)

From time to time, Drumtune PRO might encounter difficulty to pick up a clear sound and display a faulty 'Detected Tone' reading. This is recognizable when the 'Detected Tone' is suddenly, obviously much too high or much too low. In this case, hit your drumhead again and see how it corrects itself.

Read more about how to detect 'Lug Tone' or 'Fundamental Tone' in the following section.







### **User Manual**

#### DETECTING LUG TONE

When you hit nearby your drum's bearing edge, you 'activate/accentuate' the higher frequencies of your drumhead, called 'overtones' or sometimes also referred to as 'harmonics'.

These are higher pitched tones than the 'Fundamental Drum Tone'.

Hit the drumhead gently near a lug, approximately 25mm/1" from the bearing edge to let Drumtune PRO analyse the generated 'Lug Tone' at that lug location of your drum.

Drumtune PRO detects your 'Lug Tone' only if it has been louder than a built-in dB threshold. It is best to hit the drum gently, but loud enough.

For optimal tone analysis, it is not recommended to hit your drumhead too hard. Point your iOS device's microphone towards the hit location.

When a sound is picked up, Drumtune PRO analyses the detected 'Lug Tone' and displays its value as the 'Detected tone' in the yellow 'Detected Tone Field' to the left of the 'Drum Key Image'.

Sometimes it's is advised to dampen the center of the drumhead with your finger (no additional pressure is required) to improve the sound pick-up of the 'Lug Tone' harmonics, because this way the fundamental tone will be dampened.

The 'Detected tone is shown in Hz or Note, depending the position of the 'Hz/ Note' switch in the right bottom corner of the 'TUNER' screen.







### **User Manual**

### **DETECTING FUNDAMENTAL DRUM TONE**

With your drum suspended in such a way that both drumheads are enabled to resonate freely, gently hit in the center of your drumhead with your drumstick.

When you hit the center of your drumhead, the 'lowest possible tone' for the given drumhead tuning and drum size will sound.

The tone that is produced now, is also called the 'Fundamental Drum Tone'. The 'Fundamental Drum Tone' is created by the sympathetic vibration of both batter and reso drumheads. (If a reso drumhead is mounted.)

NOTE: The 'Fundamental Drum Tone' you hear is the same when you hit either the batter or either the reso drumhead in its center, regardless their individual tension differences.

Drumtune PRO detects your 'Fundamental Drum Tone' if louder than a built-in dB threshold.

Drumtune PRO analyses the detected 'Fundamental Drum Tone' and displays the 'Detected tone' in the yellow 'Detected Tone Field' to the left of the 'Drum Key Image'.







#### TONE DIFFERENCE FIELD

The white colored 'Tone Difference Field' is located to the right of the 'Drum Key Image' in the center of the 'TUNER' screen.

When you hit your drumhead, Drumtune PRO analyses the 'Detected tone' and compares it to your set 'Target Tone' to calculate the 'Tone Difference' between both tones.

The 'Tone Difference' is shown as zero, or a positive or negative value as tuning reference.

It indicates how much the current tone of your drumhead varies from your desired 'Target Tone'. The 'Tone Difference' indicates how to change your drumhead's tension in order to match your 'Target Tone'.

#### DISPLAYING TONE DIFFERENCE

Drumtune PRO displays the 'Tone Difference' in the white 'Tone Difference Field' to the right of the 'Drum Key Image', in 'Hz' or 'Note', depending the position of the 'Hz/Note' switch in the right bottom corner of the 'TUNER' screen.

(Read more about this in the 'Hz/Note' switch section of this manual.)

The 'Tone Difference' is shown as a value in the 'Tone Difference Field' and it also is pointed out on the 'Drum stick-needle Display Scale'.







**User Manual** 

#### **DRUM STICK-NEEDLE DISPLAY SCALE**

The 'Drum stick-needle Display Scale' is located at the bottom half of the 'TUNER' screen.

It is represented by a drumhead image, showing a 'Display Scale' with LED's and a 'Drum stick-needle' that indicates pitch differences in Hz.

When you hit your drum, Drumtune PRO, analyses the sound and displays the 'Tone Difference' between the 'Target Tone' and the 'Detected Tone' on the scale. The drum stick points out the 'Tone Difference' on the Hz scale, providing visual feedback about your current tuning and how to change it to match your desired 'Target Tone'.

The center of the scale is your 'Target Tone'. When the drum stick points out the center: you have matched your target tone!

The left side of the scale indicates all tones lower in pitch than the 'Target Tone'. When the drum stick points out the left side: tune up to match your target tone!

The right side of the scale indicates all tones higher in pitch than the 'Target Tone'. When the drum stick points out the right side: tune down to match your target tone!







#### **DRUM KEY IMAGE**

The 'Drum Key Image' is animating after the Drumtune PRO displays the 'Detected Tone'.

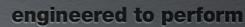
#### **ROTATION DIRECTION**

The rotation direction of the 'Drum Key Image' animation indicates to turn your drum key clockwise or counter-clockwise to tighten or loosen your tensioning bolt.

It provides feedback whether to TUNE UP or TUNE DOWN to match your 'Target Tone'. Always tighten or loosen your tensioning bolts in small steps of 1/8, 1/4 to 1/2 turns.

NOTE: The amount of rotations displayed in the 'Drum Key Image' animation does NOT correspond with the amount of turns you should make with your drum key when tuning. It is just an indication of the direction you should turn in.







### TONE DIFFERENCE VALUE AND TUNING

#### TONE DIFFERENCE VALUE IS NEGATIVE

#### **TUNE UP!**

The tensioning bolt is tuned too loose.

The drum key must be turned clock-wise to tighten your tensioning bolt and tune up your drumhead.

The 'Drum stick-needle' points out the 'Tone Difference' in Hz on the left side of the 'Display Scale'.

The corresponding red LED(s) light(s) up at the left side of the 'Display Scale'.

When within a range of 0.5 Hz, the green LED lights up, indicating your drumhead is sufficiently in tune.







# **User Manual**



#### TONE DIFFERENCE VALUE IS POSITIVE

#### **TUNE DOWN!**

The tensioning bolt is tuned too tight. The drum key must be turned counter clock-wise to loosen your tensioning bolt and tune down your drumhead.

The 'Drum stick-needle' points out the 'Tone Difference' in Hz on the right side of the 'Display Scale'.

The corresponding red LED(s) light(s) up at the right side of the 'Display Scale'.

When within a range of 0.5 Hz, the green LED lights up, indicating your drumhead is sufficiently in tune.



#### TONE DIFFERENCE VALUE IS ZERO

IN TUNE!

The tensioning bolt is perfectly tightened. The 'Detected Lug Tone' now matches your 'Target Lug Tone' exactly.

The 'Drum stick-needle' will be in vertical position, pointing to the center of the 'Display Scale'. This means you achieved a perfectly 'cleared' 'Lug Tone'.

The central green LED lights up, indicating your drumhead is perfectly in tune.



# **TUNER MODES**

Drumtune PRO has 3 TUNER MODES:

#### 1. 'UNDEFINED DRUM' MODE

Start tuning without 'Tuning preset'. Hit your drumhead near a lug and press 'SET' to define a 'Target Tone' for tuning your drumhead.

#### 2. 'TUNING PRESET' MODE

Start tuning from a stored 'Tuning Preset'.

#### 3. 'LUG TUNER' MODE

Start tuning from a stored 'Tuning Preset' and scan your 'Tone Differences' per lug. Tune your drumhead following the correct drum 'Tuning Pattern'.





### **UNDEFINED DRUM MODE**

By default, at first use Drumtune PRO starts up in 'UNDEFINED DRUM' tuner mode.

'UNDEFINED DRUM' means that you start tuning your drumhead, without using pre-defined 'Tuning Presets' which you stored and recalled from your 'Tuning Preset Library'.

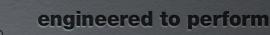
In 'UNDEFINED DRUM' tuner mode Drumtune PRO let you use any 'Detected Tone' as a 'Target Tone' for as tuning reference.

There is a 2 step procedure to tune in 'UNDEFINED DRUM' tuner mode as described in the below:

- 1. Hit drum near lug to display 'Detected Tone'.
- 2. Press 'SET' to mark the detected tone as 'Target Tone'.

Once the steps above are made, you're ready for tuning. To start tuning, hit another lug and verify its displayed 'Tone Difference'. Tune accordingly.





### **User Manual**

#### DEFINE DRUM PICTOGRAM

The 'Define Drum' pictogram is located at the top right side of the 'TUNER' screen. It shows that you are currently tuning in 'UNDEFINED TUNER' mode.

#### **DEFINING A DRUM**

Tap the 'Define Drum' pictogram to go to the 'PRESET LIST' screen. Press the 'ADD NEW DRUM' button at the bottom of the 'PRESET LIST' screen to go the 'KIT BUILDER' screen.

Choose a drum type to add from the menu in the 'KIT BUILDER' screen Press on a drum type button from the menu and go to the 'SETUP' screen to define its 'Tuning settings'.

(Read more about this in the 'KIT BUILDER' screen and the 'SETUP' screen sections of the manual.)







**User Manual** 

#### DEFINE TARGET TONE

Starting in 'Undefined drum' mode, no 'Target Tone' is defined. Starting in 'Undefined drum' mode, no 'Tuning Preset' is recalled.

When using Drumtune PRO in 'Undefined drum' mode, it is required to define your own 'Target Tone'. Tell Drumtune PRO to use a 'Detected Tone' as the new 'Target Tone' following the procedure described below.

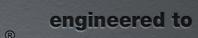
#### STEP 1: 'HIT NEAR LUG' TO DETECT 'TARGET TONE'.

Drumtune PRO needs a 'Detected Tone' to be SET' a desired 'Target Tone' as a tuning reference. Drumtune PRO asks you to "Hit near lug...".

Hit the drumhead gently near a lug, approximately 25mm/1" from the bearing edge. (Drumtune PRO only detects your 'Lug Tone' if it is louder than a built-in dB threshold. It is not advisable to hit your drumhead too hard for proper tone analysis results.)

Drumtune PRO analyses the detected 'Lug Tone' and displays the 'Detected tone' in the yellow 'Detected Tone Field' to the left of the 'Drum Key Image'. Meanwhile the 'SET' button is displayed at the right side of the drum key. "Use tone as target, or hit again?" is shown at the top right of the 'TUNER' screen.





**User Manual** 

#### STEP 2: 'PRESS SET TO CONFIRM TARGET TONE

Once a tone has been detected, press the 'SET' button to confirm to use this 'Detected Lug Tone' as your 'Target Tone' to tune to.

When successfully set, the 'Target Tone' is displayed in yellow in the top left corner of the 'TUNER 'screen.

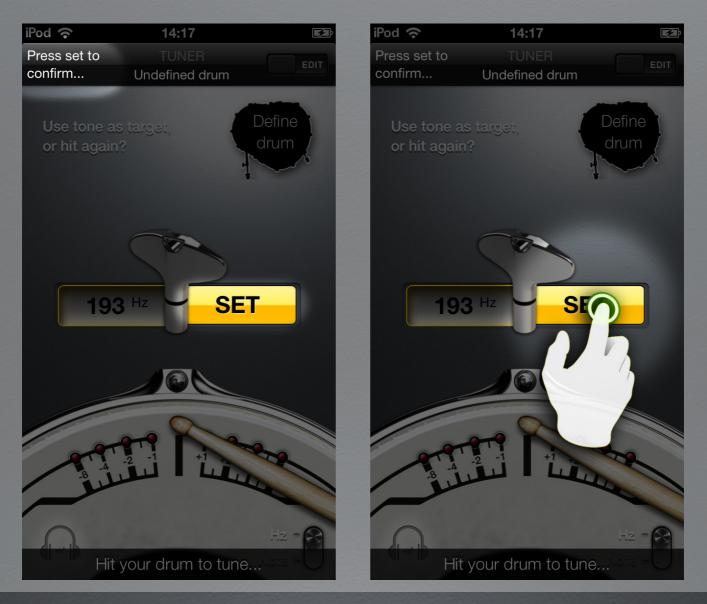
The set 'Target Tone' is also displayed in the yellow 'Detected Tone Field' left from the drum key.

A "Tune drum" message is displayed to indicate that Drumtune PRO is ready for tuning with the 'Target Tone' set-up.

Start tuning your drumhead using the set 'Target Tone' as tuning reference to match to.

The set 'Target Tone' is either displayed in 'Hz' or 'Note', depending the position of the 'Hz/Note' switch in the right bottom corner of the 'TUNER' screen.

(Read more about this in the 'Hz/Note' switch section of this manual.)







#### CHECKING A FUNDAMENTAL DRUM TONE

Hit your drumhead gently in the center of the drumhead, with both heads resonating freely. The detected 'Fundamental Drum Tone' is now displayed at the left side of the drum key. You can check the 'Fundamental Drum Tone' at any given time when tuning.

#### **RESETTING TARGET TONE**

When a target tone is set, it is always possible to reset it and replace it by another 'Target Tone' by pressing the 'yellow 'Detected Tone Field' button, left from the drum key.

You can replace the current 'Target Tone' by the new 'Detected Tone' and use this 'Detected Tone' as your new 'Target Tone'.

This is very handy to quickly match all your lugs to your preferred lug sound, for example.

To confirm resetting the target tone, press the 'SET' button. Pressing the 'SET' button confirms to use the 'Detected Lug Tone' as your 'Target Tone' to tune to.

When a 'custom' target tone is set, your 'Tuning Preset' is 'overruled' and you will see a 'red c' appear next to the lug pitch, to indicate that a 'custom' value is set.







# **DRUM TUNING TIPS**

#### SEATING DRUMHEADS

The procedure of pre-stretching your drumheads, verifying alignment with the shells center and ensuring good all-round bearing edge contact is called 'Seating' in the field.

Although it is not strictly required to achieve perfect tuning results, tuning a properly 'seated' drumhead could have several advantages, as explained below.

#### SEATING DRUMHEAD BEFORE TUNING

When installing a fresh drumhead, it might be advisable to 'break it in' by pre-stretching it.

Depending your drum and tuning style, new drumheads might be tuned quicker to even tension, meanwhile keeping that tension longer thanks to proper 'Seating'.

In general 'Seating' helps a new drumhead to keep its tuning during playing conditions, especially during the first period of use.

To seat a drumhead, push with your hand palm or fist on the center of the drumhead.

Before applying any force, make sure that head is well centred on the drum shell, that the hoop/rim is installed and that all tensioning bolts are evenly tensioned and at least finger-tight.

Exert some load on the head, using pressure or your body weight, and bounce a few times up and down.

You might hear cracking/popping sounds and see wrinkles appear. This is normal during 'Seating'. It is the sound of the glue settling itself in the 'flesh hoop' (=the metal/plastic hoop) of your drumhead and it is required for proper 'Seating'.





**User Manual** 

#### SEATING DRUMHEAD WHILE TUNING

During tuning, especially when you loosen tensioning bolts, it might be required to press the center of the drumhead with the palm of your hand from time to time to ensure proper bearing edge contact.

NOTE: 'Seating' the drumhead during tuning might change its tension. When you press the center of the drumhead, the drumhead's film may shift position slightly when it settles itself on the bearing edge of the shell. The tension in the drumhead may be redivided over the film due to this repositioning of the drumhead.

Therefore also the 'Lug Tones' might change when 'Seating' during the tuning procedure.

Repeat the 'SCANNING TONE DIFFERENCE PER LUG' step when you notice the drumhead has 'resettled' on the drum's bearing edge after having 'Seated' it during tuning.

Once proper bearing edge contact is assured, obtain even tension along the bearing edge of the shell by 'Clearing' your drumhead.

BENEFITS OF 'SEATING' DRUMHEADS

'Seating' stretches the film of new drumheads and allows the glue of the drumhead to pre-stretch evenly before tuning. This ensures obtaining stable tuning results faster.

'Seating' promotes even contact with the bearing edge of your drum shell to enhance even head tension at each lug during tuning. This might be particularly beneficial for heads that are tuned to 'lower tensions'.

'Seating' prevents the drumhead from de-tuning during play or as consequence of changing bearing edge contact under changing temperature/ humidity conditions.





### **User Manual**

### **'CLEARING' LUG TONES**

Matching all 'Lug Tones' to become equal is called 'Clearing' in the field. 'Clearing' the drumhead is the final step of the drum tuning procedure.

A drum head that is not 'cleared' can still produce a perfect musical note as fundamental tone. 'Clearing' creates a more balanced overall drum sound, regardless the fundamental tone your drum is tuned to.

A 'cleared' drumhead produces a more pure tone; with fewer different 'overtones or harmonics' which is beneficial for your overall drum sound. Cleared drumheads are 'easier' on the mix. They enhance the musical listening experience . With the drumheads nicely cleared, your drum kit produces a more uniform sound that improves your gigging or recording sound.

First tune the drum to reach your desired 'Fundamental Drum Tone' within +/- 2 to 4 Hz range.

Maintain even tension around the circumference of the drum head by tuning in the right 'Tuning Pattern'.

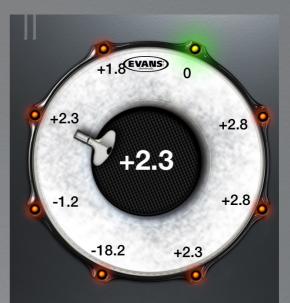
When your drumhead is tuned close to your desired 'Fundamental Drum Tone' it is time to 'clear' the 'Lug Tones' of the batter and reso drumheads.

To 'clear' a drumhead, all tensioning bolts must be tuned in such a way that all 'Lug Tones' produced at the bearing edge nearby each lug are matched to be equal in pitch/note.

It might require further experimenting to find the exact values for your given drum and drumhead combination. Once you know the values for your specific drum, you can store your 'Target Lug' pitches in your personal drum 'Tuning Preset', to recreate your desired tuning at any time.

The image aside shows a drumhead that is not yet 'cleared'.

Note that with the lug tones not yet matched, the drumhead produces different tones near the lugs at the bearing edge of the shell due to uneven drumhead tension. This means that the 'Fundamental Drum Tone' is created by a constitution of all different 'overtones', making it 'a complex' sound. When it is constituted of similar 'overtones' it is less complex to listen too, leaving more room in the mix.





**User Manual** 

#### **TUNING A TENSIONING BOLT**

Every single tensioning bolt affects tension in the whole drumhead! Each tensioning bolt exerts force on the complete surface of your drumhead. This means that when you tighten or loosen any bolt, the tension of all other tensioning bolts will change as well. The exerted pressure will redivide itself through the whole surface of the drumhead.

Changing tension in one tensioning bolt of the drumhead, will cause the other tensioning bolts to change in tone as well.

To achieve even drumhead tension it is very important to gradually turn the tensioning bolt as follows:

#### **TIPS & TRICKS**

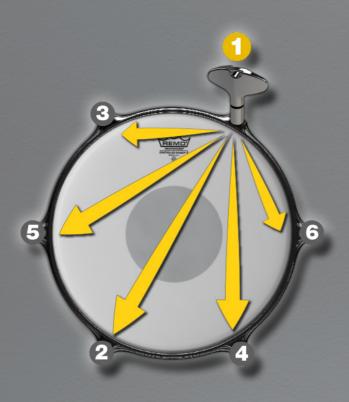
#### TURN EACH TENSIONING BOLT GRADUALLY

To obtain an even drumhead tension it is critical to turn each tensioning bolt in small steps at a time. Use small turns of the drum key, like in between 1/8 to 1/2 turn. Change the tuning per tensioning bolt in incremental steps of maximum 2 Hz per time, to allow the drumhead tension to be divided evenly around the bearing edge of the drum.

Don't focus on getting one single tensioning bolt tuned to the correct 'Target Tone', when all others are still way off.

When you change any other tensioning bolt, the one that would have been tuned to match the 'Target Tone' will change in pitch, because all tensioning bolts influence each other.

Before tuning any single tensioning bolt to match your 'Target Tone', all others should be brought up to tension to be around +/- 2Hz of the correct 'Target Tone'.



EVERY TENSIONING BOLT AFFECTS THE TENSION OF YOUR DRUM HEAD AT ALL OTHER TENSIONING BOLT

#### LOCATIONS AS WELL.

Opposite bolts often are very similar in tone, because of their linear relation between tension redivision. In this example 'Bolt 1' and Bolt 2' will often have similar pitches. To to ensure that the hoop/rim remains parallel with the shell's bearing edge, before fine-tuning, it is advisable to 'mirror' your tuning to the opposite bolt. For example if you turn 'Bolt 1' 45° clockwise, it is best to do exactly the same at 'Bolt 2'. Once the drum head has a proper seating you can focus on tuning each lugs separately to the right pitch.





#### **'CLEAR' YOUR DRUMHEAD AS FOLLOWS**

Hit near a lug. Press the yellow field left of the 'Drum Key Image' showing the 'Detected Tone'. Press 'SET' at the right side of the 'Drum Key Image' to use the 'Lug Tone' as a 'Target Tone'.

Now hit near the opposite lug and verify the 'Tone Difference' with the set 'Target Tone'.

Jump to the next lug following the correct tuning pattern, and repeat this step for each of your lugs.

Once all 'Tone Differences' are 'scanned' it's time to start tuning.

Start tuning the tensioning bolt of the lug with the highest 'Tone Difference' number, independently if it is a positive or a negative value.

Starting from this lug, bring its tuning up or down gradually in +/-2Hz step and jump to the next lug to tune, respecting the 'Drum Tuning Pattern' for

your drum.

Tune as follows:

1. Hit the drumhead gently near the tensioning bolt you want to tune. Hit the drumhead approximately 25mm/1" from the bearing edge. The detected 'Tone Difference' is displayed at the left side of the 'Drum Key Image' and on the 'Drum stick-needle Display Scale'. Point your iOS device's microphone near the hit location.

2. Tune your tensioning bolt gradually up or down.

3. Hit the drumhead gently near the lug which you are tuning to check the results of the changes you have applied to the tensioning bolt. Hit the drumhead approximately 25mm/1" from the bearing edge. Once you have changed the tuning of a specific tensioning bolt ca. maximum 2 Hz up or down, it is time to move on the opposite tensioning bolt.

4. It is important to follow the right tuning pattern around the circumference of your bearing edge, to achieve an evenly tensioned drumhead.

Always follow a 'star shaped' 'Tuning Pattern' jumping to the tensioning bolt on the opposite side of the drumhead, and skipping one or more bolts at a time in clockwise direction.

5. Changing the tuning of one tensioning bolt will influence the tuning of all other tensioning bolts because they all apply force on the same drumhead. Therefore it is advised to verify the 'Tone Difference' of each next lug before tuning again. Repeat Step 1 as described above.

6. Repeat the steps as described above, until you have tuned all tensioning bolts to have reached your 'Target Tone' and display a value of 'O' and the green LED is activated in the 'Drum stick-needle Display Scale'.





### **User Manual**



### **IOS DEVICE POSITION**

While tuning, it is important to direct the microphone of you iOS device closely to your stick's impact location.

To ensure proper lug tone detection in lug tuner mode, it is recommended to hold your iOS device on a distance of 2" to 6" or 7.5 cm to 15 cm from the point of impact.

#### NOTE:

Hit your drums rather gently to promote good tone analysis. If your drum has a long sustain Drumtune PRO might also analyse the decaying sound, after it has shown the reading for your hit.

You can vary the distance of the phone or change the 'Ambient' slider, setting to noisy to avoid the pick-up of the decay.

Additionally to avoid analysing the pitch bend that is often present during the decay of the drum sound, you could dampen the center of the drum head slightly by letting your finger gently rest on it, without exerting any additional pressure.





Drumtune<sup>®</sup> Pro User Manual LUG TUNER MODE

'LUG TUNER MODE' is designed for fine-tuning. It is perfect to assist with 'clearing' the drumhead.

'LUG TUNER MODE' helps to 'visually scan' all 'Lug Tones' and displays the detected 'Tone Difference' with your 'Target Tone' per lug individually. Use 'LUG TUNER MODE' to check which tensioning bolts have to be tightened or loosened.

It helps you to synchronize all 'Lug Tones' and match them to your 'Target Tone' to obtain equal overtones along the bearing edge of the drum. 'LUG TUNER MODE' automatically assists you with tuning your tensioning bolts in the right order, respecting the correct 'Tuning Pattern'.

#### ENTERING LUG TUNER MODE

When in the 'TUNER' screen, pull the right side 'Pull lip' to the left to enter the 'LUG TUNER MODE' screen.

In the 'LUG TUNER MODE' screen you see a drumhead displayed in the centre of the screen, featuring the exact amount of lugs as has been specified in the active 'Tuning Preset'.





### **User Manual**

#### **EXITING LUG TUNER MODE**

When in the 'LUG TUNER MODE' screen, pull the left side 'Pull lip' to the right to exit the 'LUG TUNER MODE' screen and enter the 'TUNER' screen.

In the 'TUNER' screen you now see the 'Selected Lug Nr.' displayed as 'LUG X' at the top right corner of Drumstick-needle Display Scale'. When leaving the 'LUG TUNER MODE' screen all lug's 'Detected Differences' of the latest tuning session are memorized for the active 'Tuning Preset'.

#### SWAPPING BETWEEN TUNER MODES

Swap between the 'TUNER' screen and the 'LUG TUNER MODE' screen as much as you like.

For example: when done tuning a sel**ECted lug in** the 'TUNER' screen, you can re-enter the 'LUG TUNER MODE' screen and tap the virtual drumhead's center to select the next lug to tune, following the correct tuning pattern. You can also re-scan/update the 'Tone Differences' of all lugs when in the 'LUG TUNER MODE' screen, before continuing with tuning the next lug etc...







**User Manual** 

#### SCANNING 'TONE DIFFERENCE' PER LUG

Display all 'Tone Differences' per lug to visual feedback on the tension in your drumhead.

Start scanning the 'Tone Difference' of the lug that is indicated by the 'Virtual drum key', at the right side of your drumhead's manufacturer logo.

#### SCAN AS FOLLOWS:

1. Hit the drumhead gently near the lug which is pointed out by the 'Virtual drum key'.

Hit the drumhead approximately 25mm/1" from the bearing edge. (Drumtune PRO only detects your 'Lug Tone' if louder than a built-in dB threshold.) Point your iOS device's microphone near the hit location.

Drumtune PRO analyses the detected 'Lug Tone' and displays the 'Tone Difference' between the detected 'Lug Tone' and the 'Target Tone' on the black 'Tone Difference Field' in the center of 'Drumhead Image'.

Meanwhile a LED indicates if the tuning is faulty or correct. The detected 'Tone Difference' is also displayed as a positive, zero, or negative number near the lug that is pointed out by the 'Virtual drum key'.

2. Once the 'Tone Difference' is displayed and the LED is activated, tap the 'Drumhead Image' in the center of the 'LUG TUNER MODE' screen to let the 'Virtual drum key' automatically point out which lug you need to scan next to detect its 'Tone Difference'. Repeat step 1 above.

3. Repeat the steps as described above, until you have scanned the 'Tone Difference' until all lugs have their 'Tone Difference' displayed.





### **LUG/CENTER SWITCH**

The 'Lug/Center Focus' switch is located in the top center of the 'LUG TUNER MODE' screen.

Tap or slide the 'Lug/Center Focus' switch to change its position from LUG to CENTER or vice versa. The position of the switch determines how Drumtune PRO analyses the sound of your drum head, as explained below.

#### SELECTING LUG FOCUS

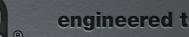
Set the 'Lug/Center Focus' switch to 'LUG' to make Drumtune PRO focus on analysing the 'overtone' at your hit location: the targeted lug near the bearing edge of the drum. Drumtune PRO will compare the drum head's sound with your 'Target Lug Tone' and display it's difference. When 'LUG' is selected, the fundamental tone of your drum will be 'bypassed' during analysis.

#### SELECTING CENTER FOCUS

Set the 'Lug/Center Focus' switch to 'CENTER' to make Drumtune PRO focus on analysing the 'fundamental tone' at your hit location: the center of your batter or resonant drum head with both drum heads being able to resonate freely. Drumtune PRO will show the drum head's sound with your 'Target Fundamental Tone' and display the value of the detected fundamental tone.

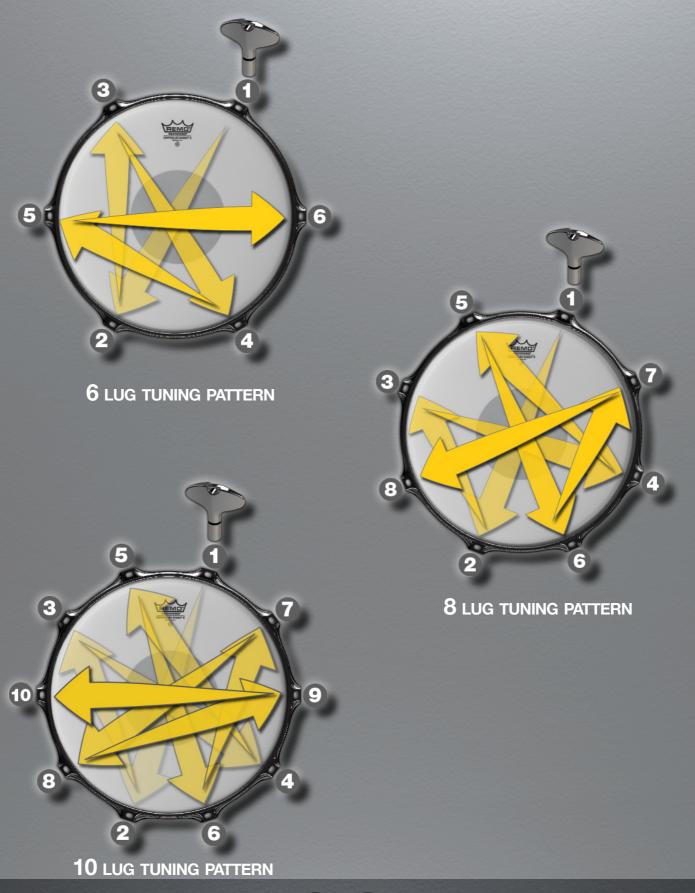
You can use this setting to verify the fundamental tone of your drum while tuning in the 'LUG TUNER MODE' screen.





### **DRUM TUNING PATTERNS** LUG TUNER MODE

1. When tuning it is recommended to use the correct tuning patterns to obtain even head tension. Follow the illustrations below as a guide or use 'LUG TUN-ER MODE' to guide you during tuning.





2. 'Seat' your fresh drumheads properly. Tighten your drumheads above the 'Target Tone' before fine-tuning them. This pre-stretches the film of the drumhead and ensures proper contact with the bearing edge of your drum. 3. Loosen the tensioning bolts just a bit below the 'Target Tone' and press with the palm of your hand in the center of the drumhead. This will resettle the drumhead on the bearing edge, before tightening it up to match the 'Target tone'. 4. Tune gradually in incremental steps. This will stretch the film of your drumhead evenly and ensure even tension distribution in your drumhead. This way your drumhead will sound full and dynamic, with a cleared tone. 5. Tune your drum to its "sweet spot". This is the point where each drum "sings", feels good and is the most resonant.

After having scanned all lugs, check all visualized 'Tone Difference' values.

Start tuning the tensioning bolt of the lug with the highest 'Tone Difference' number, independently if it is a positive or a negative value.

To select the lug with the highest 'Tone Difference' number , tap the 'Drumhead Image' in the center of the 'LUG TUNER MODE' screen until the 'Virtual drum key' points toward this lug. This is where to start 'Pattern Tuning' the drumhead. **NOTE:** IT IS VERY IMPORTANT TO GRADUALLY BRING EACH TENSIONING BOLT TO THE RIGHT TUNING IN SMALL STEPS AT A TIME.

CHANGE THE TUNING PER TENSIONING BOLT IN INCREMENTAL STEPS OF MAXIMUM 2 Hz per time or maximum 1/8 to 1/2 turns, whatever comes first.



1/8 TURN, 45°



1/4 TURN, 90°

1/2 TURN, 180°



## **User Manual**

#### LUG TUNER MODE

In lug tuner mode, no 'Drum key Image' animation is provided, you can tune quickly by checking whether positive or negative value of the detected 'Tone Difference' to know whether to tune up or down. As explained below.

## TIPS & TRICKS LUG TUNER MODE

#### TUNE GRADUALLY AS FOLLOWS

1. Hit the drumhead gently near the lug which is pointed out by the 'Virtual drum key'. Hit the drumhead approximately 25mm/1" from the bearing edge. The detected 'Tone Difference' is also displayed as a positive, zero, or negative number and the a LED indicates if the tuning is faulty or correct. Point your iOS device's microphone near the hit location.

2. Adjust the tension of the tensioning bolt a little step in the right direction. 3. Hit the drumhead gently near the selected lug, approximately 25mm/1" from the bearing edge, to check the results of the changes you have applied to the tensioning bolt. Once you have changed the tuning of a specific tensioning bolt ca. maximum 2 Hz up or down, it is time to move on the opposite tensioning bolt.

4. Tap the 'Drumhead Image' in the center of the 'LUG TUNER MODE' screen to let the 'Virtual drum key' point out which lug to tune next. (It is important to follow the right tuning pattern around the circumference of your bearing edge, to achieve an evenly tensioned drumhead.)

5. Changing the tuning of one tensioning bolt will influence the tuning of all other tensioning bolts because they all apply force on the same drumhead. As shown in the image below: a change of tension at lug 1, influences all other lugs tensions as well. If the tension at lug 1 is much too low, it will be difficult to get even tension in lug 3 and lug 6, and so on...

Therefore it is important to verify the 'Tone Difference' of each next lug. 'Rescan' each lug before tuning it. Repeat Step 1 as described above.

6. Repeat the steps as described above, until you have tuned all tensioning bolts to have reached your 'Target Tone' and that a value of 'O' and a green LED is displayed at each lug.

## NOTE

When in 'LUG TUNER MODE' screen the fundamental frequency of the drum will be 'bypassed'.

When in 'LUG TUNER MODE' screen Drumtune PRO automatically analyses the harmonic frequency range related to the harmonic 'overtones' which are produced near the edge of your drum head.





## **User Manual**

#### CHANGING DRUMHEADS AND LUG TUNER MODE

#### GENERAL DRUMHEAD REPLACEMENT TIPS

Remove your old drumhead and clean your bearing edges.

Blow your drum shell dust free.

Inspect your bearing edges on indents and ensure they are perfectly planar. Inspect your lugs on loosened assembly screws.

It might be advisable to oil your lug-nuts from time to time and keep the threads of your tensioning bolts clean to ease tuning comfort.

Center your fresh drumhead on your drum shell.

Align the drumhead manufacturer's logo with the brand's badge on the drum shell.

Place the hoop /rim centrally aligned on top of your fresh drumhead. Thread your tensioning bolts into their lugs by hand until they are "finger tight".

Tensioning a fresh drumhead, recommended technique:

1. Start tuning your tensioning bolts in position '1'. Turn your drum key a full 180° clockwise.

2. Jump to the next position, following the correct 'Drum Tuning Pattern' and repeat step 1.

3. Tune up all lugs, until your drum 'sings' when struck.

4. Return to position 1 & tighten the tensioning bolt in a smaller increment of 1/8 to 1/2 turn.

5. Hit your drum near each lug, about 25mm/1 inch and check the 'Tone Difference'.

Now you are ready for fine-tuning using LUG TUNER MODE. Check the sections of this manual to learn more about how to tune like a pro using 'LUG TUNER MODE'.

Create your own drum 'Tuning Presets' and design the sound and feel you like!





## **TONE DIFFERENCE VALUE AND TUNING**

#### **'TONE DIFFERENCE' VALUE IS NEGATIVE**

The tensioning bolt is tightened too loose.

The drum key must be turned clock-wise to tighten your tensioning bolt and tune up your drumhead.

The corresponding LED lights up in red.

When within a range of 0.5 Hz, the LED lights up in green, indicating your drumhead is sufficiently in tune.

#### **'TONE DIFFERENCE' VALUE IS POSITIVE**

The tensioning bolt is tightened too tight.

The drum key must be turned counter clock-wise to loosen your tensioning bolt and tune down your drumhead.

The corresponding LED lights up in red.

When within a range of 0.5 Hz, the LED lights up in green, indicating your drumhead is sufficiently in tune.

#### **'TONE DIFFERENCE' VALUE IS ZERO**

The tensioning bolt is perfectly tightened.

The 'Detected Lug Tone' now matches your 'Target Lug Tone' exactly.

The corresponding LED lights up in green, indicating your drumhead is perfectly in tune.







# Drumtune<sup>®</sup> Pro User Manual PRESET LIST SCREEN

The PRESET LIST screen provides access to your 'Tuning Preset Library'. The 'Tuning Preset Library 'contains your stored 'Tuning Presets'.

The following is shown in the default state of the library:

1.	'ADD NEW DRUM' BUTTON
2.	'UNDEFINED' BUTTON
3.	'TUNING PRESET' BUTTON (NONE VISIBLE AT START.)
4.	'INFO' BUTTON

All stored 'Tuning Presets' are shown as interactive list items. 'Tuning Presets' are 'button type' slots that can be added to the list, pressed to recall for tuning, rearranged in order, edited for setting changes, or deleted from the list.

These functions are explained in the sections below.







#### ADDING A TUNING PRESET

Add a 'Tuning Preset' to your 'Tuning Preset Library' by pressing the 'ADD NEW DRUM' button.

Press the 'ADD NEW DRUM' button to go the 'KIT BUILDER' screen. In the 'KIT BUILDER' screen, you can add drums by type.

When you select a drum type to add, a new 'Tuning Preset' will be added to your 'Tuning Preset Library'.

(Read the 'KIT BUILDER' screen section in this manual to learn more about its functions.)





## **User Manual**

#### **DELETING A TUNING PRESET**

There are two methods to delete a stored 'Tuning Preset' from your 'Tuning Preset Library'.

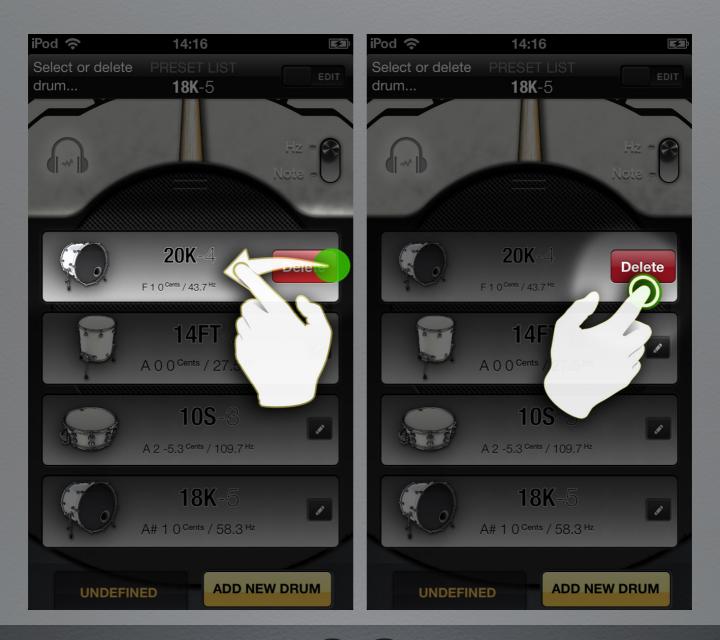
#### DELETING METHOD 1

Delete a stored 'Tuning Preset' from your 'Tuning Preset Library' by swiping from the right corner to the left corner of a 'Tuning Preset' list item and pressing the 'DELETE' button that appears as follows:

Swipe from right to left on a 'Tuning Preset' list item to show a red 'DE-LETE' button.

Press the red 'DELETE' button to delete the related 'Tuning Preset' list item permanently from your 'Tuning Preset Library'.

NOTE: DELETING A TUNING PRESET CAN'T BE UNDONE ONCE COMPLETED.







## **User Manual**

#### DELETING METHOD 2

Pressing the 'TUNE/EDIT' switch when in the 'PRESET LIST' screen, displays a red 'Delete Icon' at the left side and an 'Arrange Icon' at the right corner of the a 'Tuning Preset' list item.

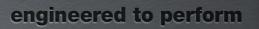
Press the red 'Delete Icon' at the left side to show a red 'DELETE' button.

Press the red 'DELETE' button to delete the related 'Tuning Preset' list item permanently from your 'Tuning Preset Library'.

Press the 'TUNE/EDIT' switch again when done deleting 'Tuning Presets' to return to the default state of the 'Tuning Preset Library'.

NOTE: DELETING A TUNING PRESET CAN'T BE UNDONE ONCE COMPLETED.





## **User Manual**

#### **EDITING A TUNING PRESET**

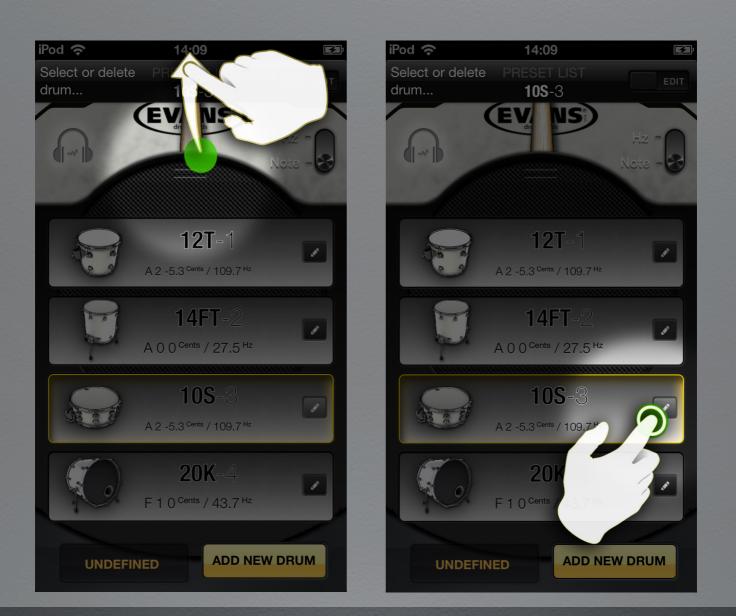
Edit any 'Tuning Preset' stored in your 'Tuning Preset Library' at any time by pressing the 'Pencil Icon' shown in the right corner of a 'Tuning Preset' list item.

Press the 'Pencil Icon' to go to the 'SETUP' screen.

Edit the settings of your 'Tuning Preset' in the 'SETUP' screen. (Read the 'SETUP' screen section in this manual to learn more about setting up your Tuning Preset.)

When done editing in the 'SETUP' screen, press the 'TUNE/EDIT' switch to save your settings and/or modifications automatically to your 'Tuning Preset Library' and enter the 'TUNER' screen.

(Read the 'TUNING' screen section in this manual to learn more about tuning in 'Tuning Preset' mode.)





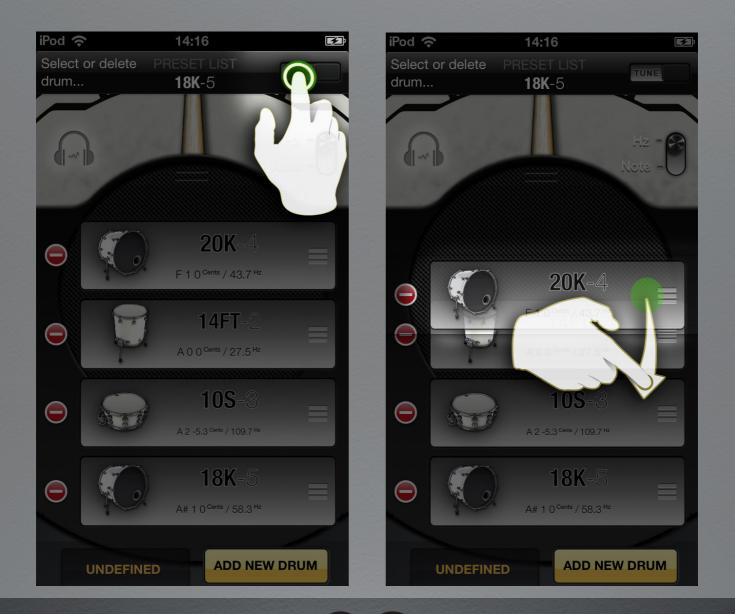
#### ARRANGING ORDER OF TUNING PRESETS

Arrange the order of your stored 'Tuning Preset' list items in your 'Tuning Preset Library' by pressing the 'TUNE/EDIT' switch in the right corner of the top navigation bar when in the 'PRESET LIST' screen.

Press the 'TUNE/EDIT' switch to display a red 'Delete Icon' at the left side and an 'Arrange Icon' at the right corner of the each 'Tuning Preset' list item.

Press and hold the related 'Arrange Icon' and drag and drop it to another position in the list to re-arrange the order of a 'Tuning Preset' list item

Press the 'TUNE/EDIT' switch again when done re-arranging the 'Tuning Presets' in the list to return to the default state of the 'Tuning Preset Library'.





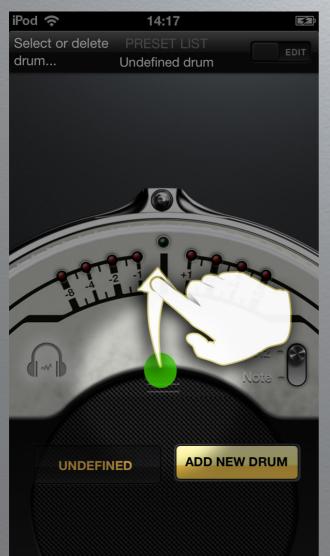


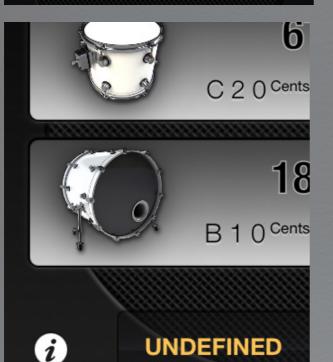
## **User Manual**

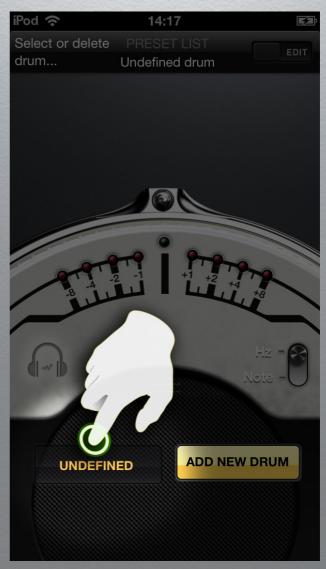
#### **UNDEFINED BUTTON**

Press the 'UNDEFINED' button to go to the 'TUNER' screen and start tuning in 'Undefined drum' mode.

(Read the 'TUNING' screen section in this manual to learn more about tuning in 'Undefined drum' mode.)







#### **INFO BUTTON**

Press the 'INFO' button at the left side of the 'UNDEFINED' buttton to go to the 'USER MANUAL' screen and find information about Drumtune PRO. (Internet access is required to download the User Manual.) Once downloaded, the manual remains installed on your device.





**User Manual** 

#### SELECTING A TUNING PRESET FOR TUNING

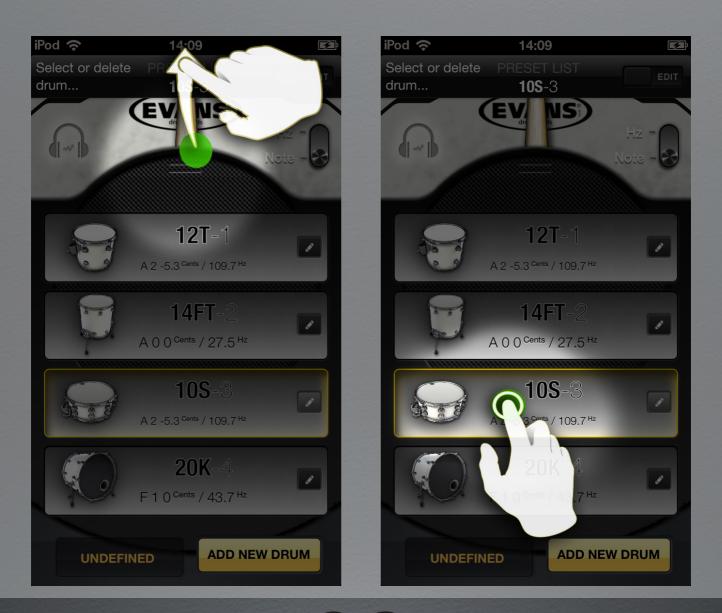
Press any stored 'Drum Tuning Preset' to recall its 'Tuning Settings' and go to the 'TUNER' screen.

In the 'TUNER' screen, the 'Tuning Preset' name, its batter and reso lug pitches, as well as the drumhead manufacturer's logo will be shown, according to your stored settings.

Start tuning your drum using the previously saved 'Tuning Settings'. Recreate your personal drum sound consistently, time after time.

When a selected 'Tuning Preset' is selected for tuning, it's frame will be highlighted in yellow.

(Read the 'TUNING' screen section in this manual to learn more about tuning.)





# Drumtune<sup>®</sup> Pro User Manual KIT BUILDER

#### ENTERING KIT BUILDER

Press the ADD NEW DRUM' button in the 'PRESET LIST' screen to enter the 'KIT BUILDER' screen.

In the 'KIT BUILDER' screen you choose a drum type to add to your 'Tuning Preset Library'.

#### ADDING A NEW DRUM

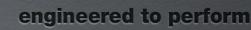
Select any drum type from the menu.

Press the 'KICK', 'SNARE', 'TOM' or 'FLOOR TOM' field to add this drum type as a new 'Tuning Preset' to your 'Tuning Preset Library'.

You will be directed automatically to the SETUP screen to specify the 'Tuning Preset' settings of the newly added drum.

(Read the 'SETUP' screen section in this manual to read more about its functions.)





### CANCELLING / EXITING KIT BUILDER

Press 'Cancel' in the top left of the 'TOP NAVIGATION' menu to exit the screen without adding a drum.

When you press 'Cancel' you exit the 'KIT BUILDER' screen to return to the 'TUNER' screen.







**User Manual** 

# SETUP

In the 'SETUP' screen you define the settings of the 'Tuning Preset' of your selected drum.

Define or change the settings of the any 'Tuning Preset' at any time to design your 'Signature' drum sound and store it in the 'Tuning Preset Library' for later reference.

The following settings can be defined: desired drum sustain and reso drumhead tuning settings, drum size and the amount of lugs, 'Fundamental Drum Tone' to tune to, type of drumheads mounted on your drum. (Choose from our 'Drumhead Library' with an overview of the most common batter and resonant drumheads from the main manufacturers.)

When you have defined the above settings, a new 'Tuning Preset' will be added to your 'Tuning Preset Library'. Ready to be recalled at any moment.

#### ENTERING SETUP

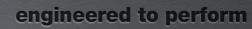
Access the 'SETUP' screen in 3 different ways:

Press the 'TUNE/EDIT' switch when in the 'TUNER' or 'LUG TUNER MODE' screen to enter the 'SETUP' screen.

Press the 'TUNING PRESET' image when in the 'TUNER' or 'LUG TUNER MODE' screen to enter the 'SETUP' screen.

Press the 'Pencil Icon' of a 'Tuning Preset' when in the 'PRESET LIST' screen to enter the 'SETUP' screen.





### EXITING SETUP / CANCELLING ADD NEW DRUM

Press 'cancel' in the top left of the 'TOP NAVIGATION' menu to exit the screen without setting up a 'Tuning Preset'.

When you press cancel without having edited the presets, you will leave and go to the 'TUNER' screen without having added the selected drum to you your preset list.







## **User Manual**

#### **DEFINING DRUM SUSTAIN**

1. Press and hold the 'SUSTAIN' slider to define the desire amount of drum sustain (or resonance). Move its position and release, or tap the name of the position to move the slider to that point.

2. The 'SUSTAIN' slider influences the estimated 'Target Lug Tone' for your 'BATTER LUG PITCH' and 'RESO LUG PITCH'. (Read more in section 'BATTER/RESO LUG PITCH')

3. Choose MAX. for maximized sustain, creating an rich and open sound, with lots of resonance. Pure tones can be heard, with little pitch bend.

4. Choose LONG to have a resonant drum sound with defined attack and a slightly shorter decay.

5. Choose MED. to have a drier sound with accentuated attack and a shorter decay.

6. Choose MIN. to have a punchy sound with focused attack and a short decay.

7. Tap/Switch the 'RESO' slider to 'OFF' to tune a drum without reso drumhead. Designed for tuning concert toms, timpani-types or 'Roto-toms'. Drums without resonant head create a 'thinner' sound, with less complex overtones and shorter decay. The absence of a resonant head eases tuning to a pure tone, and lacks the amount of possibility to play with pitch bends or control the decay and sustain of your drum by tuning.



#### **BATTER/RESO LUG PITCH ESTIMATION**

Drumtune PRO suggests to what 'Lug Target Tone' (Hz) the batter and reso drumhead lugs should be tuned to to obtain your defined 'Fundamental Drum Tone' with 'Cleared' overtones.

This 'Lug Target Tone' is a calculated estimation, based upon the settings in the 'Drum Tuning Preset'. It is not an exact value, but intended as a guideline. The exact values depend from your specific drumhead and drum combination. The suggested values will guide you while tuning and bring you close to your desired 'Fundamental Drum Tone' at a given sustain option.

Tap/Switch the resonant head 'TUNING' slider to 'HIGH' or 'LOW' to indicate if you wish to tune the resonant drumhead to be 'tuned' higher or to be tuned 'lower' than the batter head.

WHEN RESO DRUMHEAD IS TUNED EQUALLY TO THE BATTER DRUMHEAD Sustain is enhanced and often you hear a clearly resonating 'note', with slow decay.

When reso drumhead is tuned higher than the batter drumhead Sound projection is enhanced and often you hear a clear upward pitch bend in the sustain.

When reso drumhead is tuned lower than the batter drumhead Attack and stick rebound are enhanced and often you hear a clear downward pitch bend in the sustain.





**User Manual** 

## DEFINING DRUM DIAMETER / LUG AMOUNT

1. Press the faded yellow 'Define Drum diameter and # of lugs...' button to reveal a selection picker with a menu of available diameters and lug quantities.

2. Scroll inside the left side-picker menu and select your drum's diameter from the menu.

3. Scroll inside the right side-picker menu and select the amount of lugs that are on the rim/hoop (on one side of your drum).

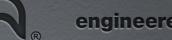
4. Select your drum's diameter and amount of lugs by dragging the desired value inside the magnifier glass of the picker.

5. To confirm your selection and hide the picker menu, press the yellow 'Define Drum diameter and # of lugs...' button or press the picker field.6. The selection picker hides and your selected value is now automatically stored in your 'Tuning Preset'.

7. Check your stored value as displayed next to the 'Diameter Icon' in the yellow 'Define Drum diameter and # of lugs...' button. The button color has changed to bright yellow, indicating a value has been set and stored.
8. Change your stored setting any time by repeating the steps above

8. Change your stored setting any time by repeating the steps above.





**User Manual** 

#### **DEFINING FUNDAMENTAL DRUM TONE**

Press the faded yellow 'Define fundamental drum tone...' button to reveal a selection picker with a menu of available tones, expressed as a pitch in Hz and or as a note with its octave, off-set in Cents and # or b indication.
 Scroll inside the picker menu and select your desired 'Fundamental Drum Tone' from the menu.

3. Select your desired 'Fundamental Drum Tone' by dragging the desired value inside the magnifier glass of the picker.

4. To confirm your selection and hide the picker menu, press the yellow 'Define fundamental drum tone...' button or press the picker field.

5. The selection picker hides and your selected value is now automatically stored in your 'Tuning Preset'.

6. Check your stored value as displayed next to the 'Diameter Icon' in the yellow 'Define fundamental drum tone...' button. The button color has changed to bright yellow, indicating a value has been set and stored.7. Change your stored setting any time by repeating the steps above.







## **User Manual**

#### **DEFINING BATTER DRUMHEAD TYPE**

1. Press the faded yellow 'Select batter head type...' button to reveal a selection picker with a menu of available batter side drumheads.

All available drumheads are organized per brand, drum type, drum diameter and head type in the menu's 'Drumhead Library'.

2. Scroll inside the left side-picker menu and select your drumhead's manufacturer. Select your 'Drumhead Manufacturer logo' by dragging it inside the magnifier glass of the picker.

 Scroll inside the right side-picker menu and select your batter 'Drumhead Type' available from the selected manufacturer. Select your 'Drumhead Type' by dragging the desired value inside the magnifier glass of the picker.
 To confirm your selection and hide the picker menu, press the yellow 'Select batter head type...' button or press the picker field.

5. The selection picker hides and your selected value is now automatically stored in your 'Tuning Preset'.

6. Check your stored value as displayed next to the 'Brand Logo' in the yellow 'Select batter head type...'button. The button color has changed to bright yellow, indicating a value has been set and stored.

7. Change your stored setting any time by repeating the steps above.





#### **DEFINING RESO DRUMHEAD TYPE**

1. Press the faded yellow 'Select reso head type...' button to reveal a selection picker with a menu of available resonant (reso) side drumheads. All available drum heads are organized per brand, drum type, drum diameter and drumhead type in a 'Drumhead Library'.

2. Scroll inside the left side-picker menu and select your drumhead's manufacturer. Select your 'Drumhead's Manufacturer' by dragging the desired logo inside the magnifier glass of the picker.

 Scroll inside the right side-picker menu and select your reso 'Drumhead Type' available from the selected manufacturer. Select your 'Drumhead Type' by dragging the desired value inside the magnifier glass of the picker.
 To confirm your selection and hide the picker menu, press the yellow 'Select reso head type...' button or press the picker field.

5. The selection picker hides. Your selected value is now automatically stored in your 'Tuning Preset'.

6. Check your stored value. It is displayed next to the 'Brand Logo' in the yellow 'Select reso head type...'button. The button color has changed to bright yellow, indicating a value has been set and stored.

7. Change your stored setting any time by repeating the steps above.





### TUNE USING YOUR SELECTED PRESET

Press the 'TUNE/EDIT' switch to leave the 'SET-UP' screen and save your settings to your 'Tuning Preset'.

When you press the 'TUNE/EDIT' switch in the 'SET-UP' screen, you go to the 'TUNER' screen. In the 'TUNER' screen, the 'Tuning Preset' will be recalled for tuning. Drumtune PRO now is ready for tuning the drum you have just edited.

Press the 'TUNE/EDIT' switch again when in the 'TUNER' screen, to return to the 'SET-UP' screen. In the 'SET-UP' screen, you can edit the settings of your 'Tuning Preset' any time.

To select another 'Tuning Preset' or to add a new one, swipe the bottom 'Pull-lip' in the 'TUNER' screen to go to the 'PRESET LIST' screen. Select another 'Tuning Preset' from your 'Tuning Preset List' in the 'PRESET LIST' screen.

NOTE: In the 'TUNER' screen, the 'Drumstick-needle display scale' shows your drumhead manufacturer's logo, as defined in your 'Tuning Preset'. This helps as an additional batter/reso drumhead tuning reference.





## **User Manual**

#### DEFINING CUSTOM BATTER/RESO LUG PITCH

Press the yellow 'Detected Tone' field, left of the 'Drum Key Image', when tuning your batter or reso head in 'Tuning Preset' mode in the 'TUNER' screen, to define a custom 'Target Lug Tone' for the active BATTER/RESO head.

Press the 'SET' button at the right of the 'Drum Key Image' to use the detected 'Lug Tone' and set it as the new 'Target Tone'.

Doing so will replace the automatically calculated 'Batter/Reso Lug Pitch' with your new 'CUSTOM LUG PITCH'.

In the 'SETUP' screen, the sustain slider's influence will be overruled and the slider will become greyed out.

At the top left side of the 'SETUP' screen red colored 'C' will appear near the 'Batter/Reso Lug Pitch value' to indicate that this value is your 'CUS-TOM LUG PITCH'.

When tuning in 'Tuning Preset' mode in the 'TUNER' screen, a red colored 'C' will be displayed next to the yellow 'Target Tone' above the 'Batter/ Reso' switch, when the slider is set to BATTER and/or RESO or both, wherever you have assigned custom values to.

The 'CUSTOM LUG PITCH' can be removed again, when you update the fundamental tone of your drum in your 'Tuning Preset' 'SETUP' screen.





## **User Manual**

## **ENVIRONMENT SCREEN**

In the environment screen you can set the 'AMBIENT' slider to a different setting. The 'AMBIENT' slider setting determines how Drumtune PRO picks-up the sound of your drum.

#### ENTERING ENVIRONMENT SCREEN

When in the 'TUNING PRESET' screen, press the 'ENVIRONMENT SET-TING' field, underneath the 'Information Button' image' at the bottom of the 'Tuning Preset List' to access the 'ENVIRONMENT' screen.

#### AMBIENT SLIDER

When in the 'ENVIRONMENT' screen, drag the 'AMBIENT' slider to a position to increase or decrease the pick-up sensitivity of Drumtune PRO.







**User Manual** 

AMBIENT SLIDER SETTINGS

Drumtune PRO is on 'QUIET' by default. 'QUIET' this is a good all-round tuning sensitivity setting. 'QUIET' reflects common tuning conditions and will allow you to tune your drum without suffering from a fair amount of background noise like a radio playing, people talking etc..

In 'STUDIO' mode the sensitivity of Drumtune PRO is increased and it will respond to softer hits. This is best for environments that are without notable background noise.

When you are tuning in a very noisy environment it could be advisable to set the slider to 'NOISY' or even 'GIG' mode, to avoid picking up 'ambient noise' or 'background noise' that could cause faulty readings otherwise.

As a consequence it is required to hit your drum harder before Drumtune PRO picks up your drum sound. This could make it harder to 'clear' your drumhead very consistently.

In 'GIG' mode Drumtune PRO can deal with reflected sound. Additionally, echo and sustain will be largely ignored, making 'GIG' mode ideal for tuning in loud & large stage environments, big halls etc...

#### LEAVING ENVIRONMENT SCREEN

When in the 'ENVIRONMENT' screen, press the 'TUNE' button at the top left of the screen to save your 'AMBIENT' slider settings and return to the 'TUNER' screen.







## **User Manual**

### END NOTE

Thank you for using Drumtune PRO. In case of further questions or remarks please feel free to contact us on support@drumtunepro.com. Thanks! Happy drumming!



#### **OTHER EXA PRODUCTS**



Cymlok is our sleek quick release cymbal fastener! Stop screwing around: mount and dismount your cymbals in a flick! Just push, lock and rock!

## FREE SHIPPING from 3 Packs & UP!

Check out cymlok here: http:// www.exaltd.com/exa-products





