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## 1. Introduction

Z-tune is an app that can be used on specific Android devices (OS versions 4.3 and later are supported) as well as iPhone and iPad (iOS 8.4.1 and later). Please read the precautions carefully before using.

Z-tune app is to be used exclusively for tuning the Z3 Full Digital Sound Processor\*.

Z-tune enables intuitive operation of basic tuning functions such as Cross Over, Time Alignment, and Equalizer. What's more, it also supports Intelligent Tune based on Clarion's original acoustic technologies. Up to 4 of your tuned parameters can be stored for easy adjustment of the soundscape to match the song or your mood.

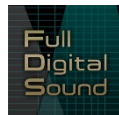
*\*Purchase of the Z3 Full Digital Sound Processor is required for this app to be usable.*

- Download Z-tune for iOS



<https://itunes.apple.com/en/app/z-tune/id1099712029?l=en&mt=8>

- Download Z-tune for Android



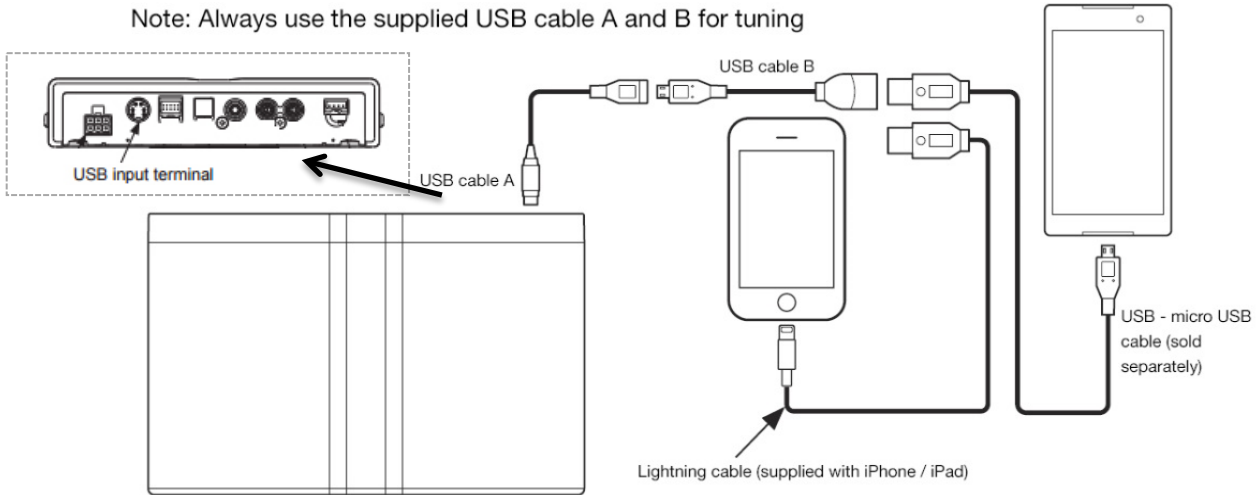
<https://play.google.com/store/apps/details?id=jp.co.clarion.ZtuneApp&hl=en>

**Once the Full Digital Sound system is installed in the car, it is necessary to apply a complete tuning in order to set it up with regards to the in-car acoustic environment.**

Set up can be done using a frequency meter (recommended) or manually (by ear, less accurate).

## 2. Connect the terminal (smartphone / tablet) to the Z3

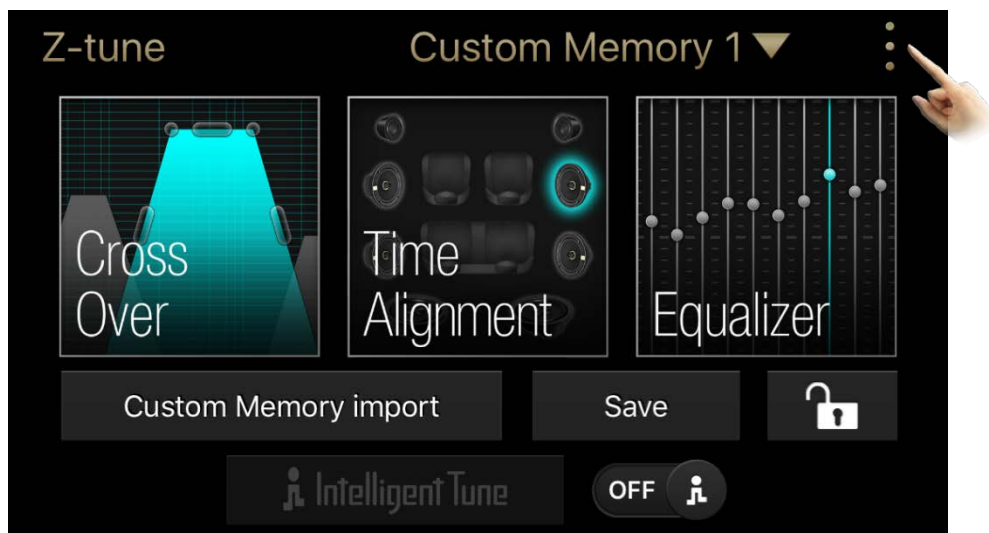
Note: Always use the supplied USB cable A and B for tuning



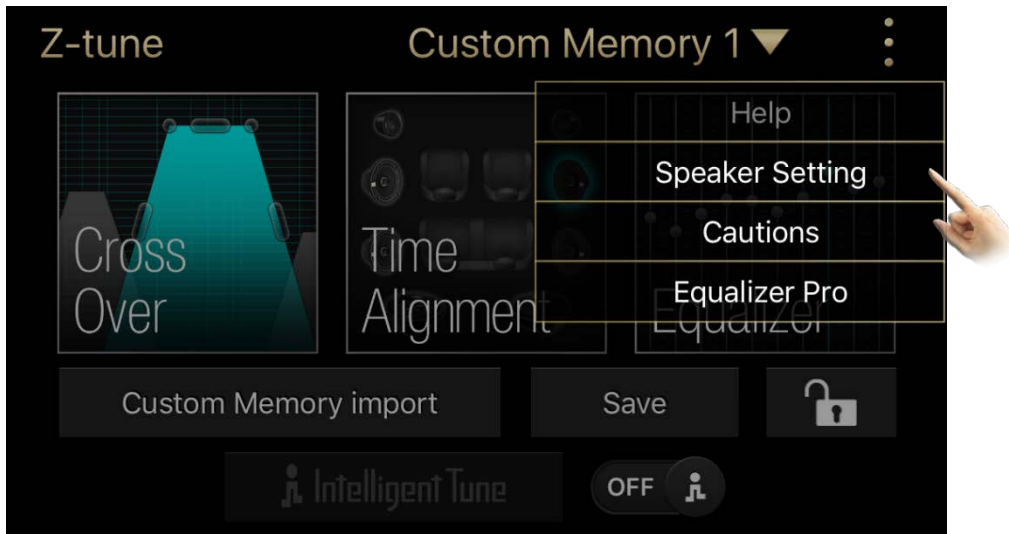
Connection is plug and play.

## 3. Select the speakers installation

Open the app, open the menu



Open speaker setting



Select the appropriate system (for instance, here we have = 2 tweeters (Z3) 2 x 2 medium (Z7), 1 digital subwoofer (Z25W))



Click "set"

## 4. Time alignment



First measure the actual distance between the driver (or other reference point in the car) and each speaker.

Then report the corresponding figures to the app

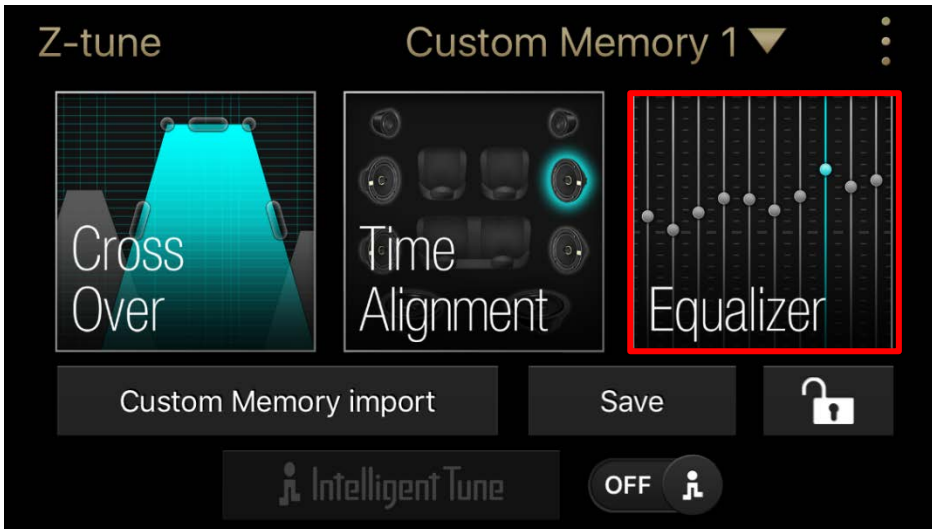


Figures can be changed by pressing -/+

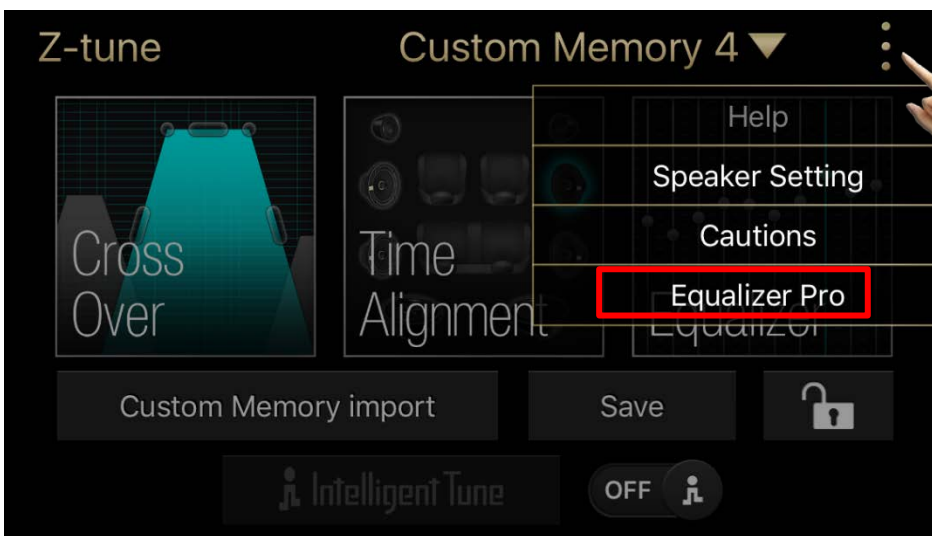
or sliding

## 5. Equalizer

### 5.1. "Standard" and "Pro": two levels of Equalizers.



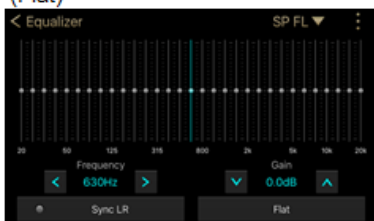
Standard Equalizer



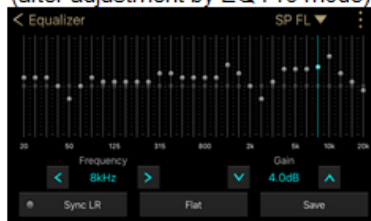
and Equalizer Pro

"Equalizer Pro" is a background EQ for specialist. It acts independently from normal Equalizer as a background setting (in both EQ level, adjustment operation is similar).

Normal EQ (flat)  
(Flat)



Actual sound effect curve  
(after adjustment by EQ Pro mode)



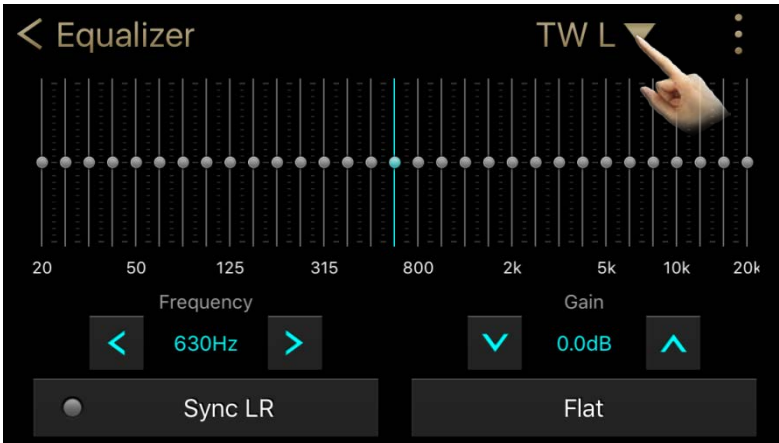
For instance, even if the standard EQ is flat, the system will apply the EQ Pro settings

This two-level EQ settings

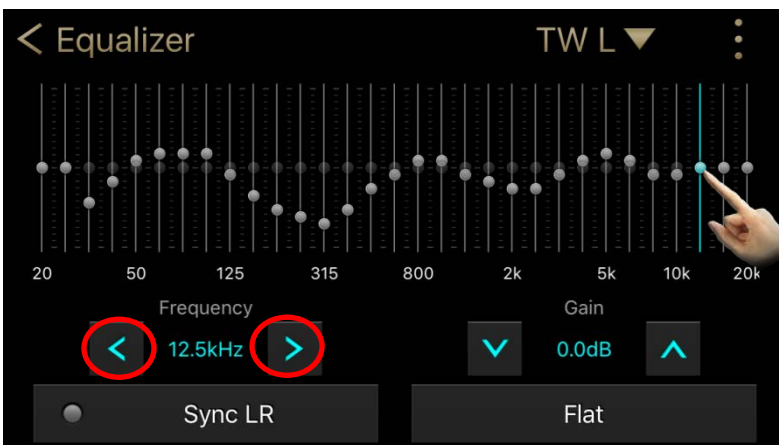
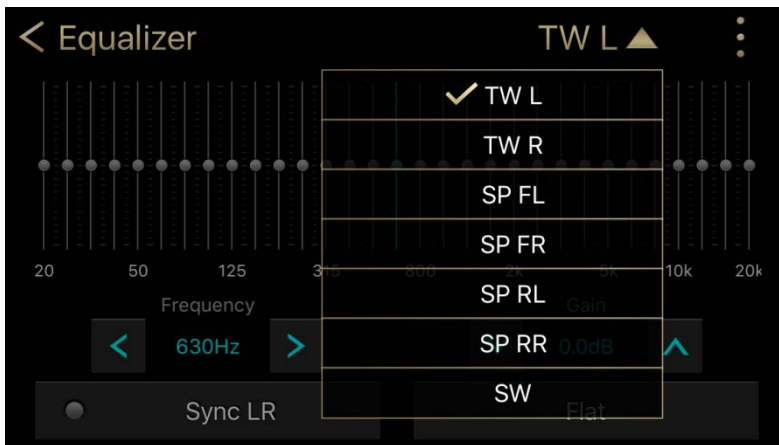
allows to have a basic sound setting made by a specialist upon installation. Then the user can freely adjust the sound by standard EQ for each music source etc., according to his taste, based on the basic sound tuning of the vehicle.

## 5.2. EQ adjustment operation

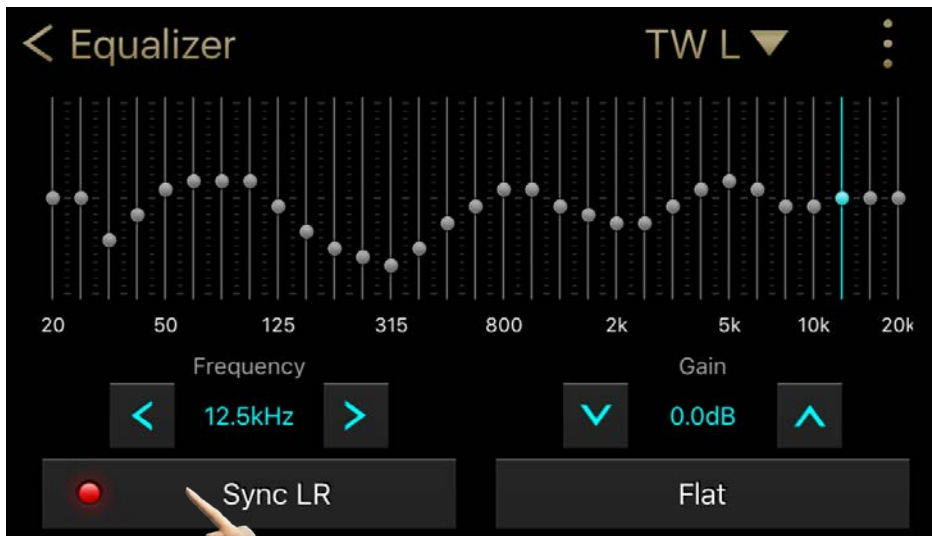
Equalization can be done for each single speaker independently. There is 31 bands available for each.



Select the speaker to adjust



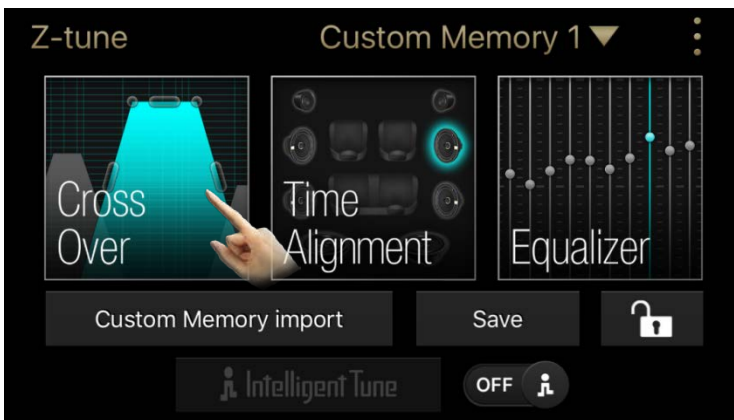
Slide  
Or  
use arrows



You can synchronize left and right speakers

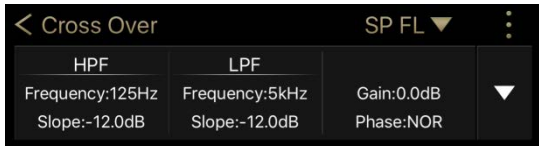
## 6. Cross over

Gain, Frequency and Slope can be adjusted by drag operation including left and right copy function

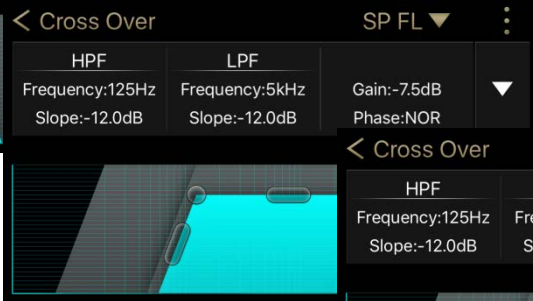
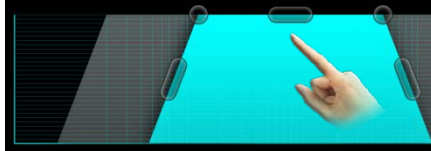


Select the speaker

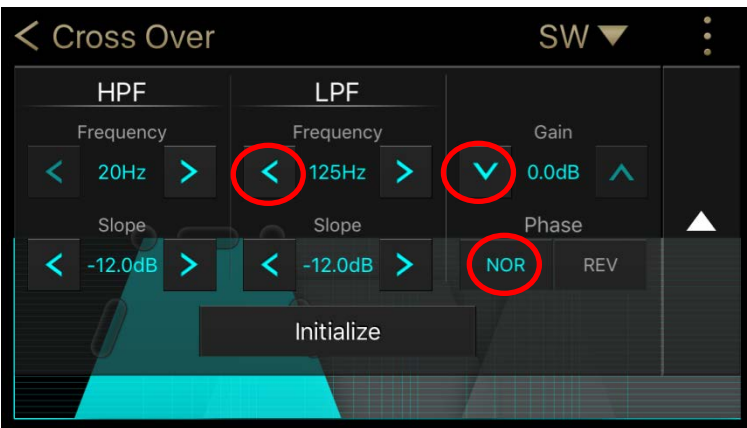




Then drag and tap to adjust the settings

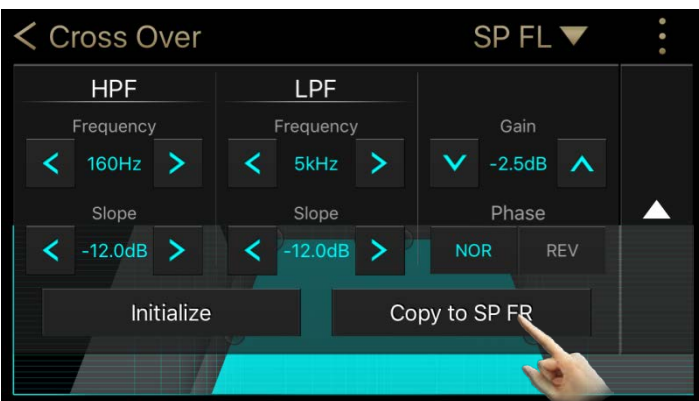


You also can access to all direct commands



Adjust with arrows

Choose normal or reverse phase



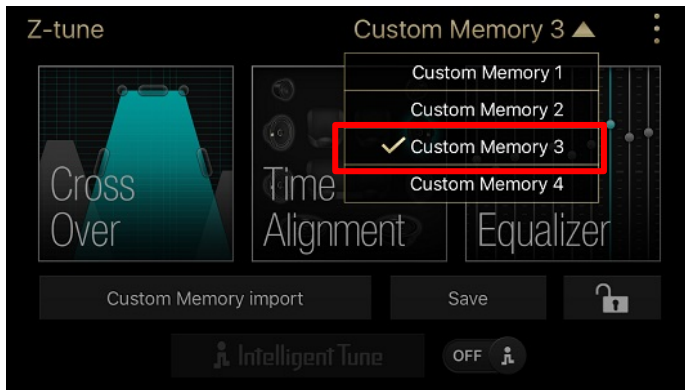
Copy settings to the opposite speaker

## 7. Save / Copy data

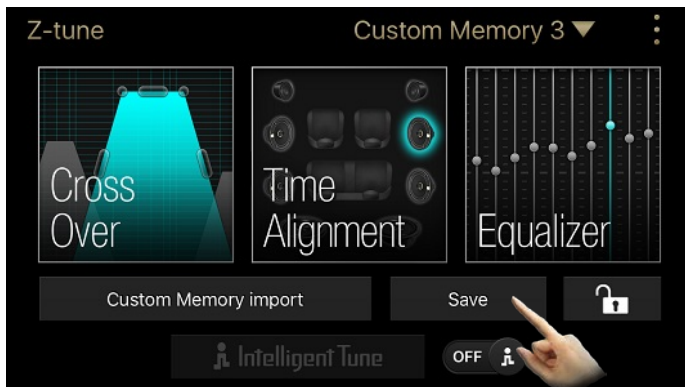
### 7.1. Save the custom tuning data

Four Custom memories are available.

1. First use: select the Custom memory you will utilize.



2. Tune the sound following the instructions above
3. Save your settings



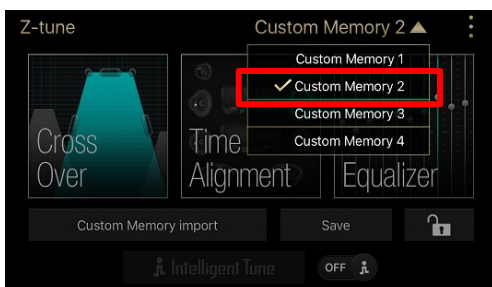
All tuning parameters have been stored into the “Custom memory 3”.

### 7.2. Duplicate the data in the Custom memory

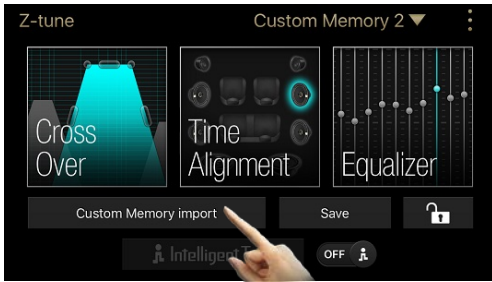
You may need to change the setting slightly to better match the music genre, driving position, second user preference etc.

In this example, duplicate the data from “Custom memory 1” to “Custom memory 2”

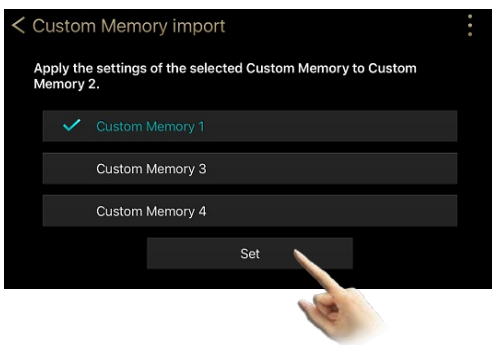
1. Select “Custom memory 2”



2. Press “Custom memory import”



3. Select “Custom memory 1” from where you import the data, and click “set”

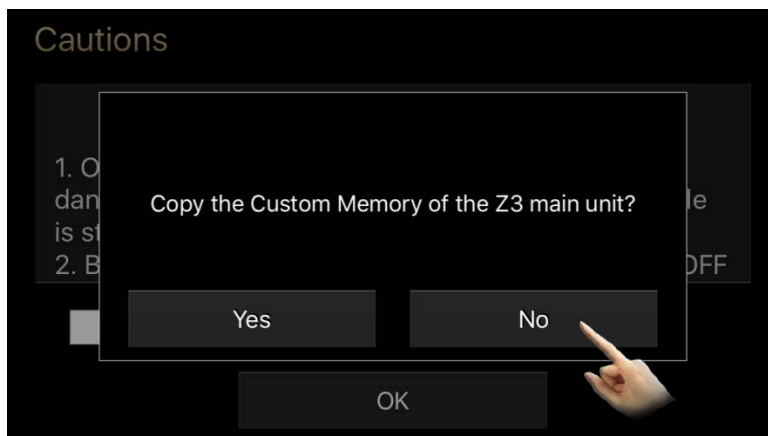


You can now modify any setting in the “Customer 2” environment.

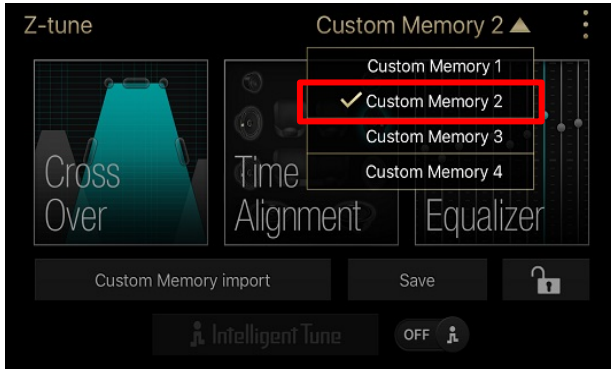
### 7.3. Export Custom tuning data to the Full Digital System (except Equalizer Pro)

As shown in §7.2., you may need to modify some Z-tune settings, and then export them to the digital systems afterwards.

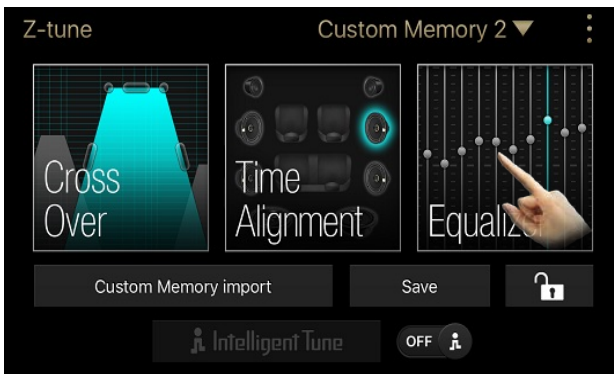
1. Connect the smartphone to the Full Digital system (Z3)  
Automatically, the system proposes to copy the Z3 data to Z-tune. Select “no”



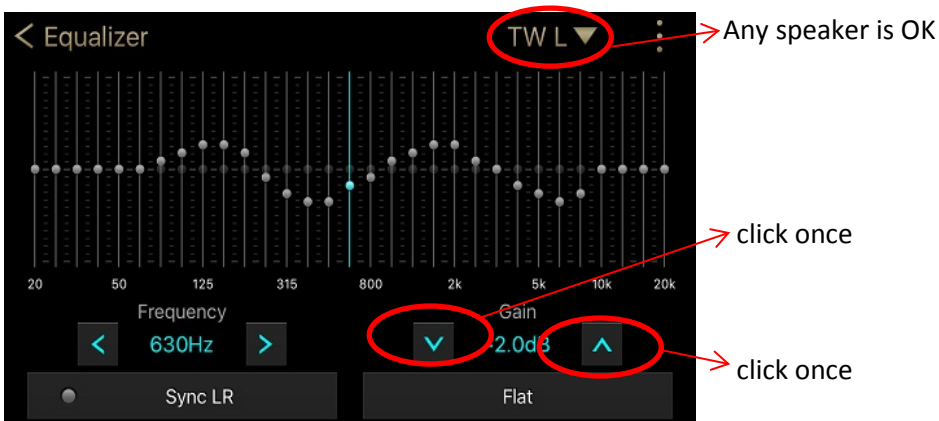
2. Select the memory which contains the data to be exported to the Full Digital Sound system



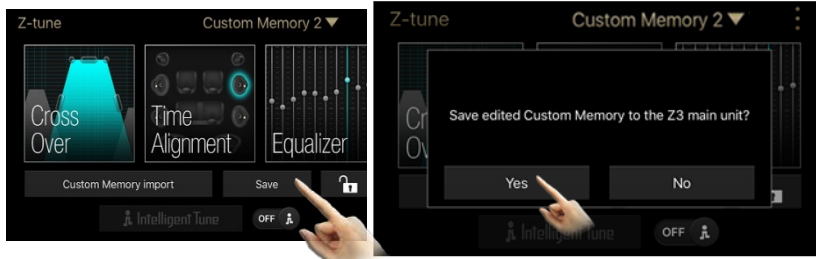
3. Select "Equalizer"



4. Then from any speaker, click one step + or -, then click back to its original level.



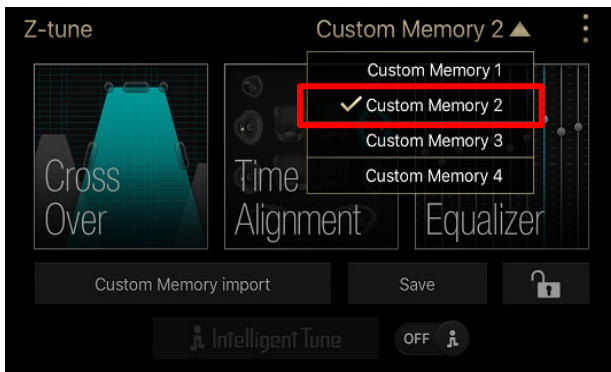
5. Save



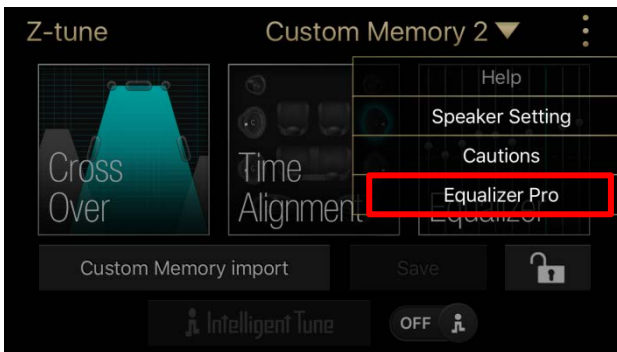
Data have been copied from "Custom memory 2" to the Z3.

### 7.4. Export tuning data to the Full Digital System (including Equalizer Pro)

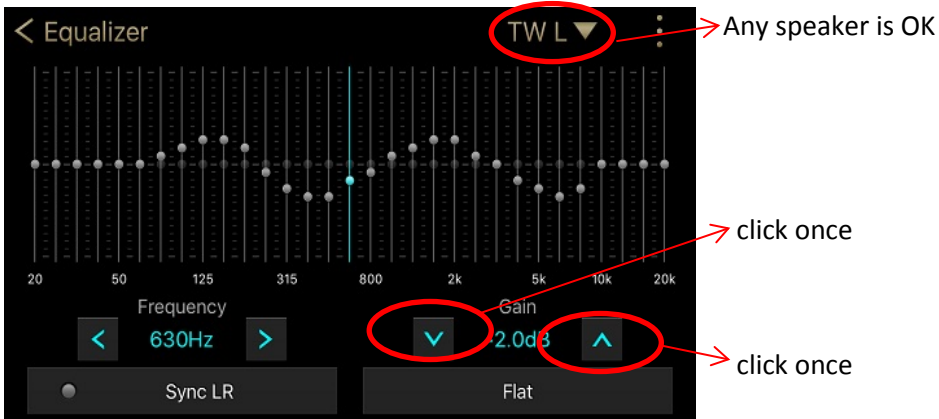
1. Connect the smartphone to the Full Digital system (Z3)  
Automatically, the system proposes to copy the Z3 data to Z-tune. Select "no"
2. Select the memory which contains the data to be exported to the Full Digital Sound system



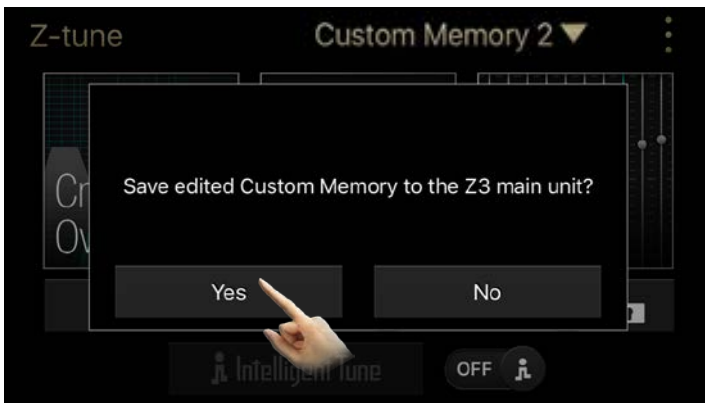
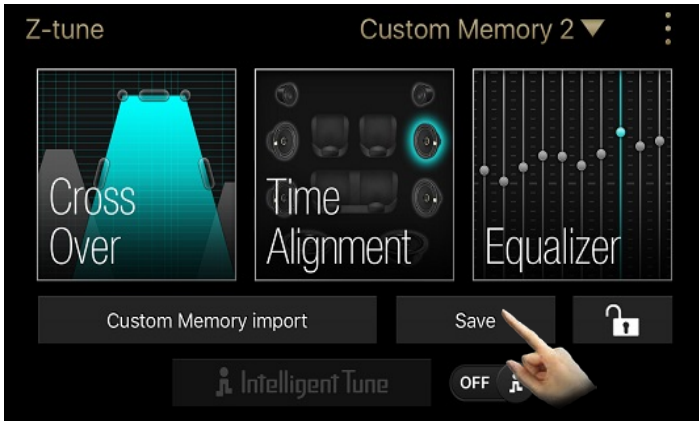
3. Select "Equalizer Pro"



4. Then from any speaker, click one step + or -, then click back to its original level.



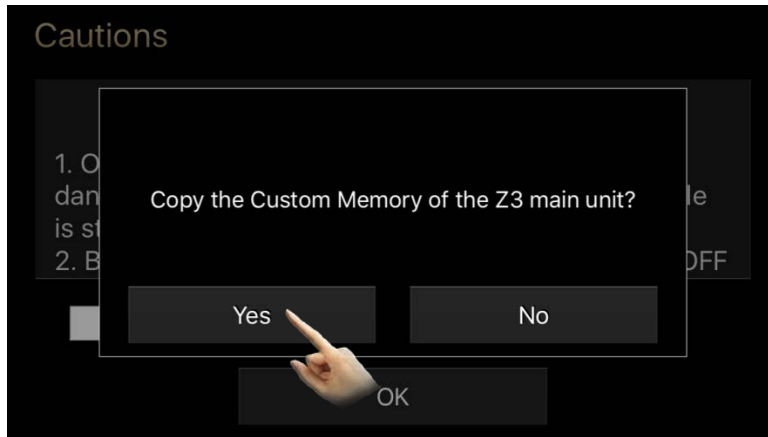
5. Save



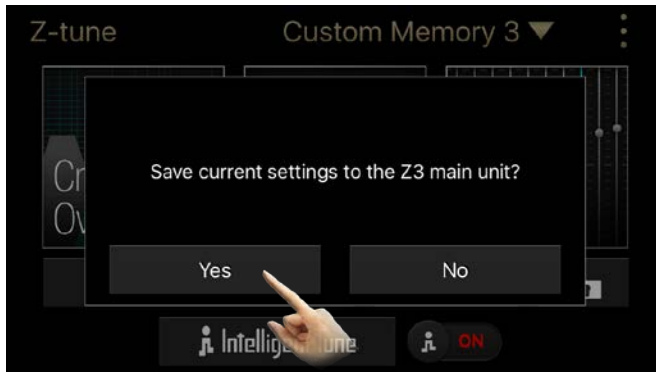
Data including EQ Pro settings have been copied from "Custom memory 2" to the Z3.

## 7.5. Duplicate tuning settings between two vehicles

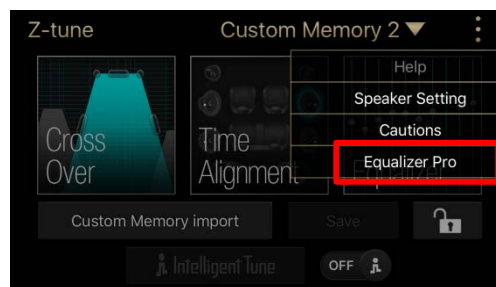
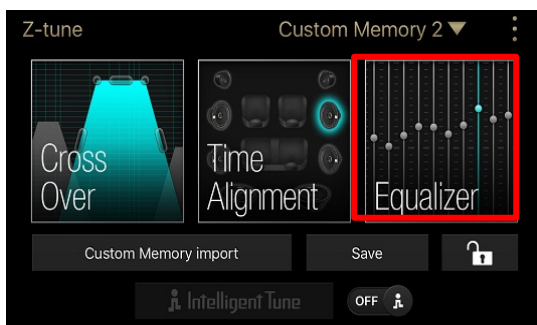
1. Connect the smartphone to the Full Digital system (Z3) in the **source** vehicle  
Automatically, the system proposes to copy the Z3 data to Z-tune. Select “yes”



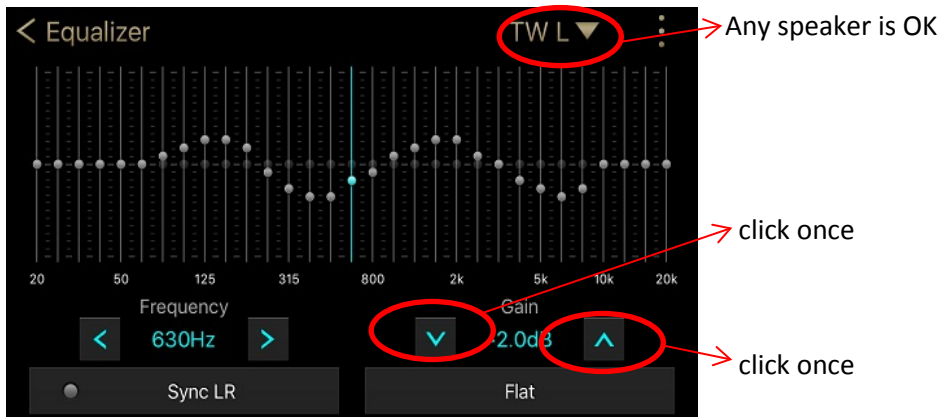
2. Connect the smartphone to the Z3 installed in the **target** vehicle



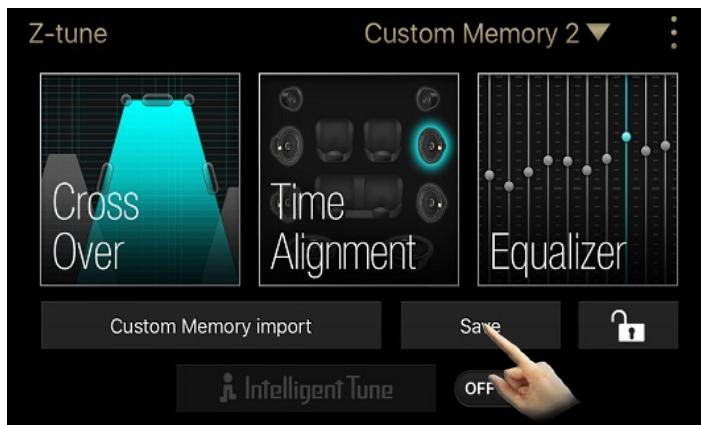
3. Select “Equalizer” or “Equalizer Pro” (see § 7.3. and 7.4.)



4. Then from any speaker, click one step + or -, then click back to its original level.



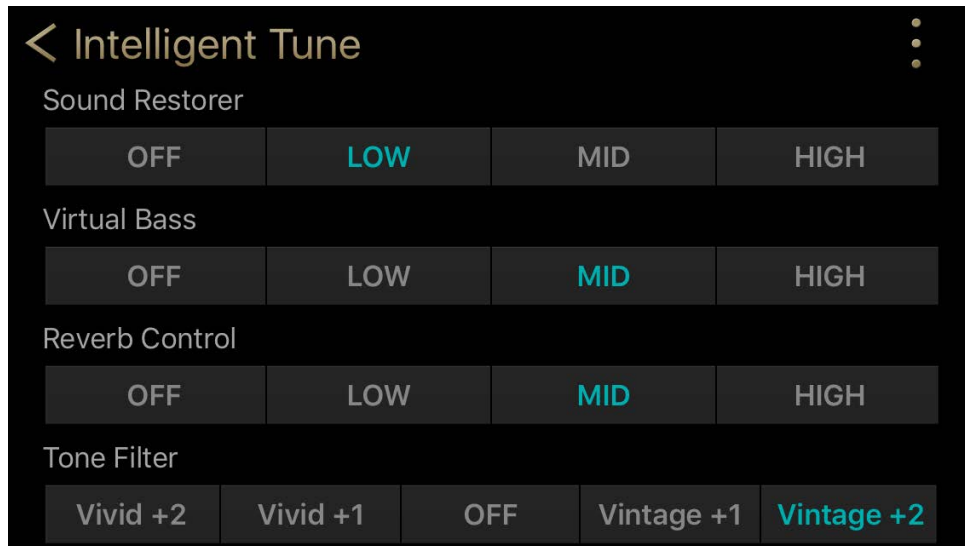
5. Save





## 8. Intelligent Tune

“Intelligent Tune” is comprised of a group of Clarion original sound technologies allowing to modify and improve the sound experience, besides tuning settings themselves.



It includes:

- “Sound Restorer”: restores compressed audio media such as MP3 or WMA enabling a more enriched reproduction sound quality.
- Virtual Bass: a technology based on acousticpsychology, in which harmonic elements of low bass sound are added to the signal to reinforce the low range the speaker cannot physically reproduce.
- Reverb Control: helps to create a more natural surround sound experience.
- Tone filter : change the tone color of a sound source to match listener preference.

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