

**A STEP-BY-STEP GUIDE FOR THE
CREATION OF COMBI: "ERASUREHEAD"
FOR THE KORG KARMA
BY PAUL OSBORN.**

(Note: this combi is number 8 in the Free 8 Bonus combis for the Chemistry Collection, available at: <http://www.karma-lab.com/sounds/chem1.html>)

Before I begin, I try to formulate an idea of where I want the Combi to "go" in a musical sense, I think of a genre or style I would like to emulate and keep in mind the various elements that go to make up that style.

Having said that, it's also productive to dive straight in and see what happens - experimentation and "happy accidents" are all a part of the process.

Ok, for this Combi - "ErasureHead" I settled on the idea of '80's synth-pop for a musical direction (as epitomized by Vince Clarke's Erasure) just to keep things simple.

So let's begin:

First of all, select an "Initialized" Combi - this is your best starting point as most of the parameters are set at a default value, (i.e "0") this allows you to focus on one aspect of the Combi at a time without distractions. (all of the FX will be switched off for example) What you will hear as you play the Keyboard is Program "A000 NoisyStabber", again, this is a default value.

Now go to the Program setup page (tab F2 - PROG) and you will notice that all of the 8 available Program "slots" have Program A000 NoisyStabber selected as default. However, you are only hearing the sound of Program number "1" (the left-most Program as you view the screen) this is due to the Midi assignments of each of the 8 Programs.

Let's go to the Midi page now - press the "Menu" button, then press F3 to select "Prm1" (parameter group 1) then press F8 to "Open" - then press F1 to select the "Midi" page and you'll notice that Program number 1 is set to "01G" (basically Midi channel 1, which also happens to be the "Global" channel - hence the "G") - you'll also notice that the other Programs have different channel settings, so if you were to set all 8 instances of the Program A000 NoisyStabber to "01G", you would hear this Program "superimposed" eight times as you play the keys, - you'll recognize this as a kind of thickening/phasing effect.

Ok, if you actually tried this then return all of the channel settings back to their defaults (Program 2 = channel 02 up to Program 8 = channel 08) as we are only interested in Program number 1 for now, so press the "Exit" button to return to the "Program" page.

Ok, let's begin with Drums. For this Combi I chose Program "A004 TrickyKit, so assuming you are looking at the "Program" setup page with the first (left-most - screen-wise) Program "slot" selected (i.e. Program number A000) - change this Program to A004 - either use the value buttons or type in 004 and press "Enter".

Ok, now we have our drum-kit, let's animate it with the KARMA system.

Go to the "Karma" page - tab F4 - here you'll see the four Karma Modules labeled A to D. Cursor down to the bottom-right corner of the screen where you'll find the "Init K.RTC" parameter and "check" it's box. (this initializes the Karma real-time controls every time a new GE is selected letting you hear each GE in it's original state).

Ok, now move the cursor to Module A's GE number field and use the "Value slider" to select a drum GE from number 0937 upwards.

Once you've done this, switch Karma "on" and latch "on" using their dedicated buttons and hit a key to hear the pattern. (When auditioning GE's, remember to switch Karma "off" just before selecting another GE).

Ok, for our Combi I settled on Drum GE number 0957 Ana Beat 4 / PsyPtch so select this now and have a listen.

You'll notice that the name of this GE recommends that you use it with the Psycho Pitch Kit (hence the abbreviation - "PsyPtch") but as this GE sounds pretty good using the TrickyKit Program, - we'll leave it set.

As for the Tempo of our Combi, - slow it down from it's default 120bpm and set it to 110bpm either using the Tempo knob or the Tempo value field. (Top-right of the screen).

Ok, that's our drums covered, now let's go on to Bass.

Switch Karma off and go back to the "Program" page - tab F2 - and select Program number 2. For our bass, I chose a nice square-wave bass - Program B038: 30303 Square. So dial this in for Program number 2. (If you use the numeric buttons, remember to type in "B" first as this is a Bank "B" Program).

Now go back to the "Karma" page - tab F4 - and select the Karma Module B's GE value field and dial in: 0576 Stein Bass 2. (A bass guitar GE that sounds pretty good driving a synth-bass and also seems to sit nicely with our drum pattern).

Now check the "Run" box for Module B, (Module A's run box is checked by default) and switch Karma "on" to listen to the result. (Remember at the start of this Guide I mentioned Midi channel settings - well with an initialized Combi - Module A drives Program number 1, Module B drives Program 2, Module C - Program 3 and so on, this is due to the default Midi settings we looked at earlier).

Ok, so far so good, - stop Karma and return to the "Program" Page. - The bass is ok but let's make it a little more interesting by getting Module B to run another bass sound in "tandem" with our existing bass.

Select Program number 3 and dial in Program: E124 Bassik Synthbass. At this stage, if you were to switch Karma on, - you would hear no change, - this is because our Program number 3 (E124 Bassik Synthbass) is set to Midi channel 3 and our bass GE - Module B is driving channel 2 - so to be able to hear our two bass-synths playing in tandem, or "layered", we need to go back to the "Midi" page we visited at the start of this Guide - remember: "Menu" button, - then F3 to select "Prm1" - then F8 to "Open" - then F1 to select the "Midi" page.

Ok, now we are on the Midi page, - change Program number 3's channel number from 3 to 2, - switch Karma on and voila! - Module B is now driving two separate bass Programs.

Right, what we want to do now is to "beef-up" our rhythm section with some tricks and Effects.

Exit the "Midi" page and return to the "Karma" page - tab F4 - and put a check in Module A's "Solo" box. (We want to hear the drums in isolation for now).

Ok, switch Karma off as we now want to go to the effects "Bus" page, - we get there by pressing "Menu" - then F7 to select "Bus" - then F8 to "Open" the page.

Ok, what this page enables us to do is to "route" each of the eight Programs in Combi mode to an Effects "slot" of our choosing, - and since our Program number 1 happens to be a drum Program, - there will exist an extra routing choice of: "DKit" - so select this now for Program number 1. (DKit is a special route in that it allows only certain drums within a kit to be routed to certain Effects, - a much greater flexibility than simply applying say, Reverb to the whole kit).

If you were to have a flip through your "Karma Voice Name List" Manual, you'll come across a drum key assignment chart. If we study the assignment for "TrickyKit" we notice a "Bus" column which shows the pre-programmed routing of certain drums to the Effects. Notice that most, - if not all, - of the snares are routed to "IFX 1" (Insert Effect 1) and that the kick-drums (or "bass drums") are going to "IFX 2", while the rest of the kit is routed to a straight "L/R" mix. - What this configuration allows you to do is to have say, - the snare going through a Hall Reverb on "IFX 1", the kick going through a Graphic EQ on "IFX 2" and the rest of the kit being fed to the "Master Effects" (L/R) set to maybe, a nice Room Reverb.

Ok, enough of the theory, let's get back to our Combi. - You'll notice that there are two value fields directly below the "Bus select" value, (for which we have selected "DKit") these are "sends" to the "Master Effects", (or "MFX") - namely: "S1" and "S2".

"S1" feeds Master Effect 1 and "S2" feeds Master Effect 2. - We'll come back to these

parameters later.

Ok, let's go to the "Insert Effects" page now to add some Effects to our drums and bass(s). - Press "Menu" - then F7 to select "IFX" - then F8 to "Open" the page.

What you will see are five empty Effects "slots". - Ok, remember what I mentioned about the snares within TrickyKit being preset to feed "IFX 1"....so let's put our snare through a Compressor,....select Effect "slot" number 1 and switch "Off" to "On".

Ok, cursor to the right to select the actual Effect and dial in: 002 St Compressor.

Our kick-drum is pre-set to feed "IFX 2", so cursor down to switch "On" Effect number 2 and again, dial in: 002 St Compressor for this second "slot", so that our kicks are compressed separately from our snare.

At this stage you may ask yourself: "why not just shove the whole drum-kit through one compressor?"....Well, the reason why I've split it this way is as I mentioned earlier: - the "DKit" bus routing allows greater flexibility....as we shall see.

Ok, next we'll set up our Master Effects but before we do, let's "tweak" the parameters of our two compressors very slightly. - At the bottom of the "Insert Effects" setup page you'll notice that the function keys are setup to access each of the five Effects, so press tab F2 to open up "IFX 1" (our snare compressor) and select the value field for "Level" and set it to 33. (It's default is 35) Ok, now press tab F3 to open up "IFX 2" (our kick-drum compressor) and again set "Level" to 33 and also set "LoEq" to +4.0dB.

Ok, now on to the Master Effects....press "Menu" - then F7 to select "MFX" - then F8 to "Open" the page.

Now we're on the Master FX setup page so select "MFX 1" and switch "Off" to "On" (do the same to "MFX 2") then dial in: 049 LCR BPM Delay for "MFX 1" and: 055 Rev Dry Plate for "MFX 2". To the right of the Master FX, you'll see the "Return" levels for both Effects (abbreviated as: "Rtn") so set both the Return value fields to 127. (Maximum "wet").

Ok, while we are on this page, let's set the "Master EQ" (far right of page) as follows:

Low: +09.0 Mid: +00.0 High: +06.0 for a classic low and high boost.

Ok, let's "tweak" the parameters of the "Master FX"....press tab F2 to open "MFX 1".

Now since "MFX 1" is now our master delay, and it is also a "bpm" delay, (beats per minute) it allows us the option of "synchronizing" the delay Effect to the tempo of our Combi, so select the value field for "BPM" and set this to 110. (Our Combi tempo).

Now select "L Bs" (Left delay base-note value) and set it to a "Quarter" note.

Leave "C Bs" (Centre delay base-note value) and "R Bs" (Right delay base-note value) set at their defaults of "Half" note and "Eighth" note respectively.

Ok, select the "Times" value field for "L Bs" and change this from it's default of 3 to 1.

Cursor down to select the "C Fb" value field (Centre delay feedback) and change this from it's default of +10 to +22. Then select the "Hi Damp" percentage field and set this to 52%.

Right, that's our delay setup, now let's "tweak" the Reverb in "MFX 2".

Press tab F3 to open the "MFX 2" page and set the "Reverb time" value field to 1.0s (1 second) and that's it for our Reverb. (All we have done is lower the "decay" time of this particular Reverb).

It's a good idea to assign the commonly used Effects, such as Delay and Reverb to the "Master FX"....this is because "Insert FX" can feed into the "Master FX", so it's nice to have Delay and Reverb available to add to each of the five "Inserts".

Ok, now let's go back to the "Insert FX" page...."Menu" - then F7 to select "IFX" - then F8 to "Open" the page. (If you end up seeing one of the Compressor editing pages at this stage,....just press F1 - for "Setup" to get back to the "Insert FX" setup page.... which is where we want to be....basically, Karma has remembered the last page we were editing, so not to worry).

Ok, to the right of our five Effects "slots", you'll see the "S1" and "S2" amounts (send 1 and send 2) that feed into "Master FX" 1 and 2 respectively, (delay set to "MFX 1" and reverb set to "MFX 2") so if you remember that our snare is being sent through "Insert FX 1" (the first compressor) then to add just reverb to our snare, we need to select the value field for "S2" of "Insert Effect 1" and raise the value to 030 (no need to add too much reverb).

Ok, now let's go back to the Effects "Bus" page...."Menu" - then F7 to select "Bus" - then F8 to "Open" the page.

Ok, remember that we set the "Bus" for our drum-kit to "DKit", and that underneath this parameter are the two "send" value fields I mentioned earlier ("S1" and "S2").... again, feeding "MFX 1" and "MFX 2" and remembering that our Delay is "MFX 1".... we'll set the "S1" value field for Program 1 (our drum-kit) to: 080.

Ok, switch Karma on and hit a key to listen to our drum pattern with Effects.

What you should hear, (assuming that our drum GE - Module A is still Solo'd) is a "bone-dry" kick-drum (no reverb or delay) being fed through it's own Compressor, (Insert Effect 2) a snare with some reverb added....again through it's own Compressor, (Insert Effect 1) and the rest of the kit....hi-hats etc. going through our Delay Effect, (MFX 1) and bypassing the reverb and our two Compressors.

So you can see, this is a pretty flexible routing system....all down to setting our drum-kit to use the special "DKit" Bus, which utilizes the pre-programmed Bus settings of each individual drum sound within a kit.

Back to our bass now. - Exit and return to the "Karma" page and un-Solo Module A and Solo Module B to hear our bass(s) in isolation.

Ok, let's make things a little more interesting with our bass(s) by using the Insert Effects again.

Switch Karma off and go back to the Effects "Bus" page....Ok, once there, select Program number 2's (our square bass) "Bus" select value field and set this to "IFX 3".

(remember that our drums have used-up IFX 1 and IFX 2).

Now cursor right to Program number 3's (our 2nd synth-bass) "Bus" select value field and set this to "IFX 4".

Now go to the "Insert FX" setup page again and switch "On" Effects "slots" 3 and 4 respectively.

Ok, for Insert Effect number 3, let's select yet another Compressor....again: 002 St Compressor, then press tab F4 to open up "IFX 3" and again, set it's "Level" parameter to: 33. Ok, press tab F1 to return to "Setup" and dial in: 042 Auto Reverse, for Insert Effect number 4....the idea for using this Effect is to "reverse" the sound of our 2nd synth-bass and kind-of "tack" it onto the end of our main Square-bass....so let's try to acheive this now: Press tab F5 to open up "IFX 4" and set "Reverse Time" to: 400ms - then set "Threshold" to: "0" - and set "Response" to: 100 - then cursor over to the right to select the "Direct Mix" parameter, and set this to: "Always Off".

Ok, switch Karma on and hit a key in the lowest octave to hear our bass with some nice "animation" courtesy of the Auto Reverse Effect.

Exit the Effect editing page and return to the "Karma" page and un-Solo Module B to hear our rhythm-section of drums and bass in their newly-effected guise.

Ok, now let's turn our attention to adding some kind of riff or melody using GE - C.

First of all, switch Karma off and go back to the "Program" select page (tab F2) and select Program number 4.

Now the Program I've selected for number 4 is quite difficult to get to, as it's a "sub-set" Program of the General Midi sound-set,....so you need to do the following: Press "Utility" (tab F8) and scroll down to highlight "Select by Category" and press "OK".

You will be presented with the "Select Program by Category" screen, and you'll notice at the bottom of this screen is an "Index" value field, and a "Category" value field.

First of all, cursor to the "Index" value field and type in: 026 - then "Enter".

Next, cursor over to the "Category" value field and type in: 14 - then "Enter". (This is the "Hit/Arpg" category).

At the top of the screen, you should see highlighted: g(4) 082 Sequenced Analog. (This is the Program we want for number 4).

Press "OK", and you will be returned to the "Program" select page with this new Program intact.

Ok, so far so good,...now to be able to drive this sound with Karma Module C, we need to go back to the "Midi" setup page....press "Menu" - then F3 to select "Prm 1" - then F8 to "Open" - then F1 to open the "Midi" page.

Ok, now select Program number 4's Midi channel value field, and change this from 4 to 3 - now this Program is set to be driven by Module C. (Remember the default Midi assignments: Module A = channel 1, B = ch. 2, C = ch. 3 and D = ch. 4).

Ok, while we are on this page, you'll notice that above F5 is a tab named "Pitch"....so press F5 now.

Basically, I want to raise Program number 4's pitch up exactly one octave, so select Program number 4's "Transpose" value field, (the top-most parameter) and change this from it's default of: +00 to +12 (12 semi-tones).

Ok, let's now go back to the "Karma" page to select the GE for Module C.

For Module C, I chose: 0602 Get in Groove....which happens to be a synth-bass GE you may recognize from the Factory pre-sets, however,...for our Combi, we'll use it as a kind of melodic riff.

So dial in: 0602 for Module C and remember to check C's "Run" box.

Ok, now switch Karma on,...hit a key in the lowest octave and have a listen.

I chose this GE as it seems to sit pretty well with our drums and bass, - but as ever, - there's room for improvement. Let's make our melodic riff a little more interesting by "layering" another synth Program over the top, to play in "tandem", (like we did with the bass)....only this time, we'll tune our 2nd synth to a different interval for harmonic purposes.

Ok, switch Karma off and go to the "Midi" page once again, and change Program number 5's channel assignment from a default of: 5 to 3 (so that Module C drives Program 5 as well as 4).

Ok, you may have noticed that we skipped the selection of a new Program for Program 5....this is because we are going to leave Program 5 left at it's default of: A000 Noisy Stabber, as this Program sounds pretty good alongside Program 4: g082 Sequenced Analog.

Ok, while we are on the "Midi" page again....press F5 to access the "Pitch" page again, and set Program 5's "Transpose" value to: +19 to create the harmony interval I mentioned earlier.

Ok, now above F3, you'll notice a tab named "OSC"so press F3 now.

The "OSC" page deals with how the "Oscillators" of each of the eight Programs behave in Combi mode, the top-most value field for each Program enables us to choose between "monophonic" or "polyphonic" playing....the "middle" value field selects whether both

oscillators play or whether just osc1 or osc2 play for each Program, and the bottom-most value field, controls "portamento" on/off and amount for the selected Program.

Ok, all we are interested in on this page for our Combi, is the "Osc Select" parameter for Program number 5 (middle value field). By default it is set to "Both", so change it to "Osc 1" so that we hear only oscillator 1.

The reason for this is because our Program 5: A000 NoisyStabber has a "noise" sample selected for oscillator 2, which we want to silence for the purposes of our Combi.

Ok, let's add some Effects to our melodic riff.

Exit, and go back to the Effects "Bus" page, and select the "S1" value field for Program number 4, and set it to: 127 (so we are applying plenty of Delay to this Program).

The "Bus" select value field by default for this page, is set to: "L/R" - so leave this parameter at it's default, so as to bypass the Insert Effects.

Ok, select the "S1" value field for Program number 5 and set this also to: 127.

Now select the "S2" value field for Program number 4, and set it to: 040 - and do the same for Program number 5. (Remember that "send 2" is feeding our reverb, so we are adding a small amount, to add some depth to our melodic riff).

Ok, switch Karma on and have a listen....(for this Combi, it's best to confine your keyboard triggering to the lowest octave of the keyboard, and also to restrict your playing to single notes, as opposed to chords).

Well, so far so good, this Combi is coming together quite nicely, there are some nice touches, like auto-panning of our melodic riff, courtesy of GE - C,....however, there is also some pitch-bending near the very end of our melodic riff, - so let's stop that from happening as an exercise in becoming familiar with "filtering" midi CC's.

Press "Menu" - then F6 to select "KARM" - then F8 to "Open" the page, and then F6 again (TxFltr) to open the "Transmit Filter" page.

You'll notice to the very left of the page, a column for Module's A to D....to the right of this column, is the "GE Bend" filter - so un-check (switch off) Module C's checkbox now.

All we have done, is stopped Module C from transmitting pitch-bend data to our melodic riff, and if Karma is still running, you'll notice the pitch-bending will cease.

Ok, let's utilize Module D for some background "fairy-dust".

Switch Karma off, and exit the "TxFltr" page and return to the "Program" setup page (F2).

Now select Program number 6, and dial in: A008 Rez. Down. - Now cursor right to select Program number 7, and dial in: B096 Rezzo Release.

(Both these Programs - 6 and 7, are going to be driven by GE - D).

Ok, now go back to the "Midi" page as before, and set both Programs 6 and 7 to Midi channel 4. (Remember....GE - D defaults to Midi channel 4).

Ok, now press tab F5, to select the "Pitch" page once again, and select Program number 7's "Transpose" value field, and set this to: +19.

Ok, now exit the "Pitch" page, and go to the "Karma" page (tab F4) and select Module D's "GE Select" value field, and dial in: 0249 Orch Timpani.

(I discovered that this particular GE provides just the right amount of background "interest" for our two pad-like Programs - 6 and 7....it pays to experiment!)

Ok, check the "Run" box for GE - D.

We now want to change the way GE - D controls Programs 6 and 7....to be specific, we are going to change the transpose value of GE - D.

To do this, we need to go to the "Karma Module" page, so press "Menu" - then F6 to select "K Mdl" - then F8 to "Open" - then F1 to open the "Parm 1" page.

Ok, you'll notice on this page, up in the top-left corner of the screen, that you can determine which Module you are affecting....be it A, B, C or D.

The method of changing the Module to be affected, is to use the "M back" and "M forward" tabs above F6 and F7.

So press F6 (or F7) repeatedly (while looking at the top-left corner of the screen) until you reach Module D.

Ok, now select the "Transpose" value field, and change it from it's default of: +00 to +12. (All we have done on this page is transposed the output of Module D an octave higher).

Ok, switch Karma on and hit a key in the lowest octave to hear our Combi....I think you'll agree that all the elements are working well together, sonically and rhythmically.

It's good practise to experiment with what "works" and what doesn't.

Ok, let's give our "pad" sounds a bit more depth by adding some Effects....so back to the Effects "Bus" page, and select Program number 6's - "S1" value field, and set this to: 127 - then do the same for Program number 7.

Next, select Program number 6's - "S2" value field, and set this also to: 127 - and again, do the same for Program number 7. (Remember that we are once again "bypassing" the Insert Effects, so we are leaving the "Bus select" parameter set to it's default of "L/R" for Program(s) 6 and 7).

Ok, now listen to how our background melody has benefited by adding lots of delay and reverb.

Well, that's pretty much it, as far as GE animation is concerned....we have used up our GE's, but there's still one Program left....Program number 8 - so seeing that our Combi consists of

little more than: being able to transpose the root-note of the performance via one finger triggers in the lowest octave,....(which is the recommended playing method for this particular Combi, as mentioned earlier) let's enable ourselves to add some extra user-input, by using Program number 8 for traditional chord-work, within the upper octaves.

However,....for this to work, we need to "split" the keyboard, so that the "Karmarized" performance is contained below C4.

So let's try to achieve this now. - First of all though, you need to understand that to be able to hear Program 8's sound, (by this, I mean: physically playing the keyboard and hearing Program 8's sound in the traditional sense....un-Karmarized) we need to set Program 8's Midi channel to: 01G (the Karma's Global channel number 1) on the "Midi" page.

However, if we do this,....our Program 8 will be driven by Module A - our drum GE. (Remember that our drum Program - TrickyKit, is already using channel: 01G).

So, the way to get around this, is to set: Module A = ch. 1 (change to ch. 2), Module B = ch. 2 (change to ch. 3), Module C = ch. 3 (change to ch. 4) and Module D = ch. 4 (change to ch. 5).

So you see, all we have done is shift each Module's Midi channel assignment "sideways" by "1".

By doing this, we have allowed Program 8 to have the Karma's Global channel (01G) all to itself - thereby enabling us to hear Program 8's sound as we physically play the keyboard - regardless of whether the Karma function is switched on or off.

Ok, switch Karma off, and go to the "Midi" page once more, and do the following: change Program 1's midi channel from 01G to 2, Program 2's channel from 2 to 3, Program 3's channel from 2 to 3, Program 4's channel from 3 to 4, Program 5's channel from 3 to 4, Program 6's channel from 4 to 5, Program 7's channel from 4 to 5 and finally....Program 8's channel from 8 to 01G.

Ok,....for all this to work properly!....we need to go to a page we haven't visited yet in this Guide. This is the "Karma Midi I/O" page. (Input/Output).

We get there by pressing: "Menu" - then F6 to select "KARM" - then F8 to "Open" - then F2 for "Midi I/O".

Ok, again, to the far left of the screen, is the Module A to D column, and just to the right of this column, is the "In" channel assignment for each Module. (All set by default to: "Gch"....we'll leave this parameter column set "as is").

Ok, just to the right again, is the "Out" channel assignment for each Module, and we want these assignments to "mirror" the channel assignments of the previous Midi page.

So....select Module A's "Out" value field and change this from: 01G to 2, Module B's "Out" value field from: 2 to 3, Module C's "Out" value field from: 3 to 4 and finally, Module D's "Out" value field from: 4 to 5.

Ok, now let's "split" the keyboard....or to be more precise: confine our Karma performance within the octaves below C4.

You'll notice at the bottom of this page, a tab above F3 named "Key Z" (Key Zone).

Ok, press this now, and you'll see a page with each Module's Key Zone with a default of C1 (Bottom Key) to G9 (Top Key).

Ok, what we are going to do is: change each Module's Top Key to C4.

The easiest way to do this, is to select Module A's "Top Key" value field....then press and hold the "Enter" button while hitting C4 on the keyboard....this will automatically give you a Top Key value of C4.

Ok,...repeat this value of C4, for the Top Key's of Module's B,C and D.

Now if you play some notes above C4, (with or without Karma running) you will hear just Program number 8 (A000 NoisyStabber)....so far so good, but let's change this Program to something suitable for chord-work, which also compliments our Karma performance.

Exit the "Key Zone" page, and press F2 to open the "Program" page once again - then cursor to Program 8 and dial in: E006 Super Sweeper.

Ok, fine, now let's go back to the Effects "Bus" page and select Program 8's "S1" value field, and set it to: 127.

Then, cursor down to select Program 8's "S2" value field, and set it to: 080.

Ok, switch Karma on and play single notes in the lowest octaves, and add some chords in the region above C4.

You'll notice a nice "filter-swept" drone, underpinning the Karmarized performance when using single fingered notes in the lowest octave,....hold the key for a good while to hear this. What you are hearing of course, is Program 8, which spans the whole keyboard.

Ok, let's just lower the Volume a little for Program 8.

Go to the "Mix" page (tab F3) - and you'll see the Panning and Volume assignments for each of the eight Programs,....select the "Volume" value field for Program 8, and change it from it's default of: 127 down to: 116....and that's all that's needed, as the rest of our mix seems to be fairly well balanced.

For the remainder of this Tutorial, I'll guide you through the setting-up of one of the Karma Realtime Control knobs,.....and the rest, I'm going to leave up to you.

So press "Menu" - then F6 to select "K GE" (the Karma GE page) - then F8 to "Open" the page.

Ok, what we have, is between 1 to 16 different parameters per Module, with each parameter controlling a different "aspect" of the GE assigned to each Module.

The 16 parameters are accessed by using Function-Keys 1 to 4 (only four of the parameters can be shown on the screen at the same time).

We use the "M" - (Module Select) tabs above F6 and F7, to scroll between Modules, so that we can see which Module is being affected by a particular parameter.

Ok, let's look at our drum Module - (Module A).

Use the "Module Select" Function Keys - F6 or F7, to scroll to Module A. (You'll see which Module you have selected, by looking at the top-left corner of the screen).

Ok, now make sure you are working with parameters: 1 to 4, by pressing F1.

Have a look at parameter number 3 - "Drum: Velocity Offset [1]" - this parameter has a default value of: +0015.

Ok, switch Karma on and hit a key, and we'll see how this parameter affects our drums.

Select the "Value" value field for parameter number 3, and slide the "Value Slider" up and down to hear the change.

Ok, this sounds like a useful parameter, as it enables us to raise and lower the volume of the kick and snare.

So let's assign this parameter to Karma Realtime knob number 1.

We do this by selecting the "Asgn" value field, (it defaults to: - - -) and use the "up" value key to select: "Knob 1".

Ok, let's assign an appropriate name to knob 1.

Press "Menu" - then F6 to select "K RT" - then F8 to "Open" - and then F4 for the "Name 1" page.

You'll notice that the Karma System has already recognized that Module A is a drum GE.....hence: [Drum] for knob 1.

So let's dial in an appropriate name by selecting the "Name" value field and typing: 173 then "Enter".

This will give us the name: "Kick / Snare Level". (Take a while to have a look at the rest of the names you can use).

Ok, if you now press "Exit", then F5....you will come to the "K. RTC" page, - it is here where we can view our knob assignments.

Play around with knob 1, and use it to fade the level of the kick and snare.

Well, that just about wraps things up for this Tutorial....my apologies for being a little too "pedantic" and for "stating the obvious", throughout this Guide!

But above all, - I hope you've enjoyed it and gained some insight into the workings of this wonderful Synthesizer!

Cheers, Paul Osborn.