

## ***Force-to-Scale***

*Force-To-Scale* is a facility that restricts the notes the sequencer can generate to only those in a pre-selected musical scale, for instance, a particular major or a minor key or perhaps a key that you have created yourself.

What's the point of restricting the notes that the sequencer will play? Suppose that you're attempting to play along with a group of musicians and they're jamming around a basic chord progression, perhaps a song in the key of C Major. If you're trying to find the right groove or sequence to go along with whatever they're playing then *Force-to-Scale* is invaluable: without it you're very likely to dial a wrong note and pretty much trash whatever the rest of the band are trying to play. With *Force-To-Scale* enabled, you'll never hit a wrong note and you can noodle away without fear of upsetting the mood of the piece.

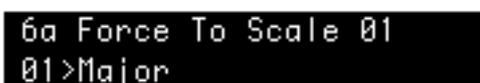
Suppose that the key of the piece changes from C major to A major. Won't you be out of tune with everyone else? No, because, in this instance, just press an 'A' on your MIDI keyboard and the sequencer will automatically transpose to the key of A Major.

What happens if the key then changes from A major to A minor? You could go through the scale menu and load the Minor Melodic scale but that would take time and also it's a bit tricky to do in the middle of a gig. Fortunately, there is a faster way by using the *Quick Select* banks to create a *Force-to-Scale* change for you. You can assign a series of key changes to a group of *Quick Select* banks and change scale with the press of a single button. You should then be able to keep up with the rest of the band, assuming that they've agreed which scales they're going to use in advance. (If they won't do that then you should start looking for another band.)

The *Force-to-Scale* settings are saved as part of the *Patch* record and affect all of the sequences that have the *Force-to-Scale* function switched on. The *Force-to-Scale* parameter is in the *Pitch/MIDI* area of the front panel. To switch it on, make sure that you're in *Normal* mode and press the *Force-to-Scale* push button once.

The notes that the sequencer can play are determined by two factors - the currently loaded scale and the Keyboard Transpose amount.

Page 1: Load Scale



```
6a Force To Scale 01
01 >Major
```

To select another scale, press the *Enter* button so that the cursor moves to the first field. Use the Data Wheel to select an alternate scale from those available. NOTE that you

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won't be able to hear the effect of change immediately because *ZEIT* won't load a scale until you're sure you've got the right one. This is because changing the current scale on the fly can result in sudden changes to the notes the sequencer is currently playing - which you probably don't want the audience to hear.

There are sixteen factory scales available. These are as follows:

01	Major	C, D, E, F, G, A, B, C
02	Minor Melodic	C, D, D#, F, G, A, B, C
03	Minor Harmonic	C, D, D#, F, G, G#, B, C
04	Aeolian	C, D, D#, F, G, G#, A#, C
05	Pentatonic	C, D, E, G, G#, A, C
06	Hungarian	C, D, D#, F#, G, A#, B, C
07	Blues 1	C, D, D#, F, G, A#, C
08	Blues 2	C, D, D#, G, A, C
09	Major Augmented	C, D#, E, G, G#, B, C
10	Diminished	C, D, D#, F, F#, G#, A, B, C
11	Lydian Diminished	C, D, D#, F#, G, A, B, C
12	Oriental	C, C#, E, F, F#, G, G#, A#, C
13	Chinese	C, E, F#, G, B, C
14	Japanese	C, C#, F, G, G#, C
15	Persian	C, C#, E, F, F#, G#, B, C
16	Arabian	C, D, E, F, F#, G#, A#, C

The factory scales cannot be over-written. However, you can use them as a source when you set up your *User Defined Scales*.

Page 2: Scale Edit

```
6b Force To Scale 02
Edit>C0 D0 E0 F0 01
```

This page is used to edit the current scale. Use the *Enter* button to move between the notes. You can use the *Data Wheel* or your MIDI keyboard to change the note values. Notice that you can't increase the pitch of the current note to a pitch higher than the next note in the scale or lower than the previous note in the scale.

*Hint: If you want to create your own scale then a good starting point might be to look through the above table and see if any of the existing factory scales are close to what you have in mind.*

## Page 3: Rename Scale

```
6c Force To Scale 03  
Rename>DarkMoonScale
```

To rename the scale, press the *Enter* push button once. The current letter will flash. Use the *Data Wheel* to change the current letter and the *Select* button to move to the next letter. Press the *Enter* key again when you have finished.

## Page 4: Save Scale

```
6d Force To Scale 04  
Save>DarkMoonScale
```

To save the current scale in one of the *User Defined Scale* memories press the *Enter* push button once and then use the *Data Wheel* to scroll through the list of available location. To save the record, press the *Select* button once. To leave this option, press the *Enter* push button once again and the cursor will return to the *Home* position.

*Hint: At the moment, the force-to-scale facility is limited to just the available notes in the MIDI range. Future revisions may allow the creation of microtonal scales.*