

# gorDesign solutions

presents



A Cakewalk™ studioware panel  
for the  
Korg 168RC digital mixing console

Copyright © 2001 gorDesign solutions



## Genesis

In early 1998 I received an excited telephone call from a close friend , [Bruce Brody](#) , telling me about a fabulous purchase he had just made. He was waiting for a flight back to Los Angeles and was anxious to tell me something that couldn't wait.

Bruce had just left Manny's (48th Street, NYC) and told me that he bought their demo Korg 168RC. I was utterly clueless as to what he was talking about and replied "You bought their floor model of *what?*"...

There was a pause.. then slowly and deliberately... he said "Listen to me carefully.. this could be exactly what **you** need. Maybe you should get one too.". "Get what?.. What the heck are you talking about?" I said.

Bruce then began to pitch the merits of this Korg 168RC "thingy". My head was spinning with all this input but the fundamental message was clear. This gizmo was an incredible 'blow out' bargain at any price below \$1000 and that I would be an idiot not to comb the face of the planet for one (*of course he had taken the last one in the New York City area*).

An announcement then came over the airport loudspeaker that his flight was boarding.. Too cumbersome for carry-on, Manny's would ship the mixer. Bruce had left the store with only the manual and now was promising to absorb it's contents on his flight back.."Talk to you when I land and know more" 'click'.

Hoo boy.. what am I in for now...

Rich Gorde  
gorDesign solutions  
January 10/2001



## *Introduction*

I still feel that the Korg 168RC was the ultimate bargain of the early digital mixing era. The 'perceived' difficulty of use and lack of motorized faders unfortunately sounded it's death knell. I suppose many of the Korg's original owners have long since dumped them into the second hand market. This might make them even more of a bargain!

People seem to have two major complaints. How 'noisy' it is and how 'difficult' it is to use. Most of the *noise* can be traced to pilot error. Usually the operator does not grasp the relationships of input level and gain stages. Where a problem can occur is at the convergence of the analog and digital worlds. Feeding the A/D convertors of the 168RC for maximum dynamic range and minimum noise takes some practice. Once in the digital realm, the 168RC proves to be a dead quiet sweet little board.

The second complaint, the difficulty factor, is a bit more daunting. It's hard to visualize what is going on inside the mixer, especially if you are new to it. Couple this with LCD based navigation one can be presented with a steep learning curve. Ironically if you look at currently available digital mixers under \$3000, the design philosophy really has not changed much. The same "view through a port hole" LCD paradigm just seems to be more acceptable today.

In November of 1998 I released the original Classic studiomware panel suite. The purpose was to take some of the anxiety out of using this mixing console.

v2.001 is the latest release of the main **gorDesign solutions** studiomware panel. I thought the Classic version was getting a little stale so I set upon the task of dragging the 168RC into the new Millenium. I hope you will enjoy using version v2.001 and feel that it breathes new life into the relationship between you and your own 168RC.

Rich Gorde  
**gorDesign solutions**  
January 10/2001

# Requirements

This is not a standalone software program. This studioware panel requires a Cakewalk product that supports Studioware™. For more information on Twelve Tone Systems and their products visit [www.cakewalk.com](http://www.cakewalk.com).

v2.001 is designed to fill the Cakewalk Pro Audio workspace at a screen resolution of 1024x768x16. This is the minimum resolution required to see the entire panel without scroll bars.

## Scope

The scope of this manual is to provide documentation on the functions of v2.001. Because this is a new studioware panel that builds on the previous Classic package, this document will assume that you have been able to configure both the Korg 168RC and the host Cakewalk product to operate together using the Classic package. If you don't have experience operating the earlier version then you will find information on how to configure your system in the accompanying updated FAQ.

## Getting Started

*Please remember you can not open a studioware panel on it's own. You must have a work file up on the screen for it to operate in.*

For testing purposes create a new Cakewalk NORMAL work file so that you may play around with the panel.

Now point to the directory where you stored the panel and load the gorDesign v2001 studioware panel.

When the panel loads acknowledge and close the splash screen. You should then see the panel as displayed in figure 1 below.



Fig. 1

# Set Track



The TRACK parameter on the studioware panel must match the track you plan on using for automation. Use the pushbutton on the bottom menu bar to pop up the TRACK select panel and point it to your automation track.

Make sure when you initialize the automation track be sure to set the correct output port to the Korg. If you don't initialize the track, the actual controls for each channel will be grayed out. They will not respond to midi events from the Korg or when you try to move them with your mouse.

When you initialize the track DO NOT assign a channel number to the track! The Korg uses 7 MIDI channels simultaneously. If you assign a channel number to the automation track you will filter out 6 of the 7 channels the Korg needs to operate!

Once the track is initialized the studioware panel should now operate in the work file you just created..

## FDR, EQ and AUX



These three yellow buttons toggle the visibility of all 12 main faders **FDR**, their EQs **EQ** and the effects and auxilliary send sub panels **AUX**. The best way to see how they work is to play with them. Begin by toggling the **FDR** button. You should see the 12 fader blocks stream into the workspace. Next toggle **EQ**. You should now see the associated EQ panels stream on and off. Do the same with the **AUX** control button. The auxilliary panels will appear and disappear.



Fig. 2 [FDR], [EQ] and [AUX] examples



# Individual Channel Visibility



Below each of the 12 main channel positions are two visibility controls for each channel block.

The numeric button **1** hides or displays the individual channel block. The **EQ** button toggles the visibility of the channel's EQ section.

The channel mute indicator **■** sits between the two controls and lets you know when a channel is muted even if the channel block is not displayed.

## Channel Block Layout



EQ frequency control



Frequency levels and mid Q



EQ -6/-12 db pad slider



EQ Active switch



Individual Channel block

The EQ Active switch mimics the fader strip's EQ in/out.

The EQ sub panel can not be hidden if the channels EQ is active.

**hotView** will dynamically force an EQ section to it's visible state whenever the EQ is hot (active).

The fader strip contains the individual channel Volume, EQ in/out, Solo, Mute and Pan controls.

Each odd numbered channel (1, 3, 5, etc.) has a **PAIR** button, enabling adjacent channel pairing.

This fader strip can not be hidden and is seen whenever the channel block is visible.

You may also mute or un-mute an individual channel by clicking on the channel number **1**.

The Aux sub panel contains the send level controls for the auxilliarys and effects.

The PRE / POST switches are just below each rotary control

The **■** control bar toggles sub panel visibility.

**hotView** will force this sub panel to it's visible state when any of the send levels are non-zero.

# Hide Mutes





The  button, located next to the main channel visibility controls, performs a unique de-cluttering function. To see this in operation operate the  so that all 12 main channel blocks are visible. Now use the mute button in the individual channels to mute some of them. On a few of these channels make sure that the Volume slider is all the way off. On the rest of the muted channels ensure that you have some Volume level other than zero. Your panel should look something like Fig. 1 below.



Fig. 1




Now hit the  button. This will automatically hide all muted channels that have a volume level of zero. The purpose for this is to quickly de-clutter the screen; hiding all channels that are 'not being used'. After hitting  your screen should resemble Fig. 2 below. You can turn all the faders on again by toggling  a couple of times. Play with it a bit to see how it works.



Fig. 2

# Bus Assignment



BUS indicator matrices for channels 1 through 12 can be viewed by hitting the **BUS 1-12** pushbutton on the menu bar.

This sub panel is overlaid on top of the corresponding channel. Each section of the sub panel contains the BUS indicator matrix for the channel. These will light when the channel is patched to any of the 8 internal busses of the Korg 168RC.

If the Korg is in stereo BUS mode then the ST indicator will light along with the BUS pair assigned. For technical reasons you may not push a button and make BUS assignments here. These are indicators only and reflect the BUS programming at the Korg. To assign channels to a BUS you must program the 168C itself.

## Channels 13 - 16

The utility channels are accessed by selecting the **CH 13-16** pushbutton on the menu bar at the bottom of the studioware panel.

The controls for four channels operate in the same manner as channels 1 through 12. The exception of course is the reduced capability these four channels. They have no EQ section.

The BUS assignments for these utility channels are also visible on this pop up panel. Like the main channels 1 through 12, the assignments must be made at the 168RC itself.



## Solo Issues

The Korg has two SOLO modes, EXCLUSIVE and MIX.

Depending on which solo mode you have selected, mousing the panel's solo switches may give conflicting results. If you have MIX mode selected then the buttons work properly. In MIX mode you may solo multiple channels at the same time. Therefore mousing multiple solo buttons give the desired results.

In EXCLUSIVE mode only one channel may solo at a time. When you already have a channel soloed and you mouse select another channel to solo, the first channel goes silent and the second channel solos. Sonically it is correct except the first solo button did not pop out. You must 'un-solo' the first channel before you select another. The problem stems from the fact that the Korg does not tell the panel to 'un solo' the initial channel.

If you do all of your soloing from the Korg physical work surface then the panel will display all of the expected changes.

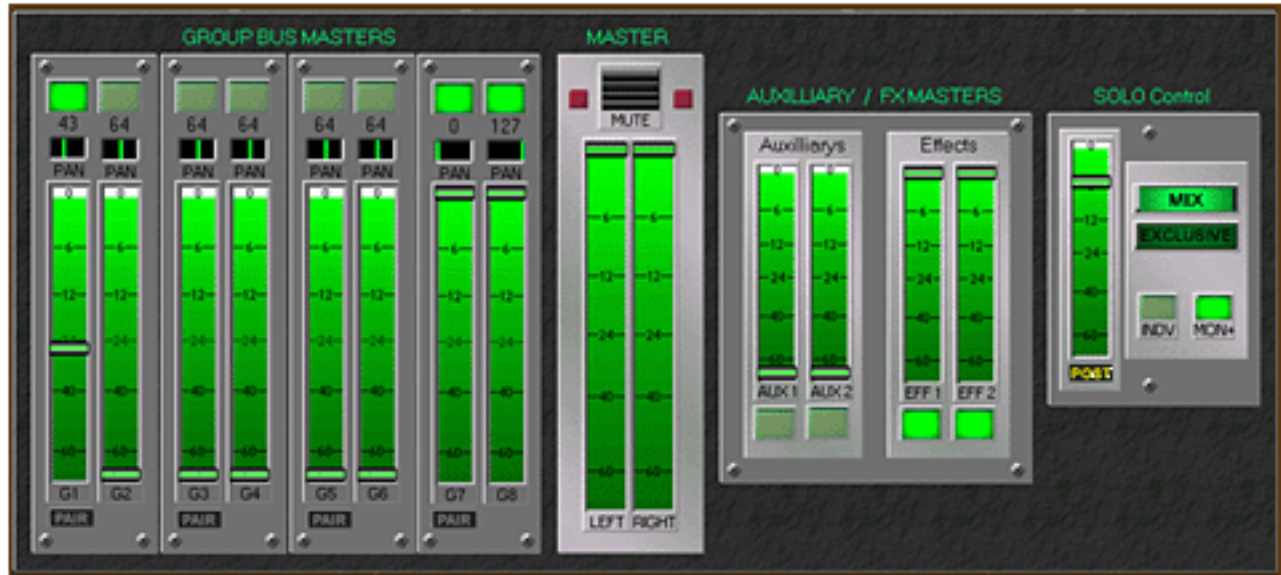


# Masters

Access the MASTERS sub panel by selecting **MASTERS** on the menu bar.

This sub panel displays all of the fader blocks associated with the 8 internal GROUP BUSES, the MASTER fader and the AUXILLIARY and EFFECTS returns. It also contains the block for SOLO control .

Please notice that these faders are attenuators. **Unity** gain is in the full up position. To maintain the highest dynamic range you should start with these faders at their maximum, especially the MASTER fader.



*The Masters sub panel*

## Operating Tip:

One of the more common mistakes I have seen is an operator using the MASTER fader to control room volume. The MASTER should be nailed to the top and the physical MONITOR rotary control on the Korg 168RC should be used as the room volume control. Sometimes you may have to reduce the MASTER a db or two when making your final mix. Just a touch to pull the levels out of the clipping region.

In general the only time I pull the MASTER down is when I walk away from the console or if I think I heard the telephone ring.

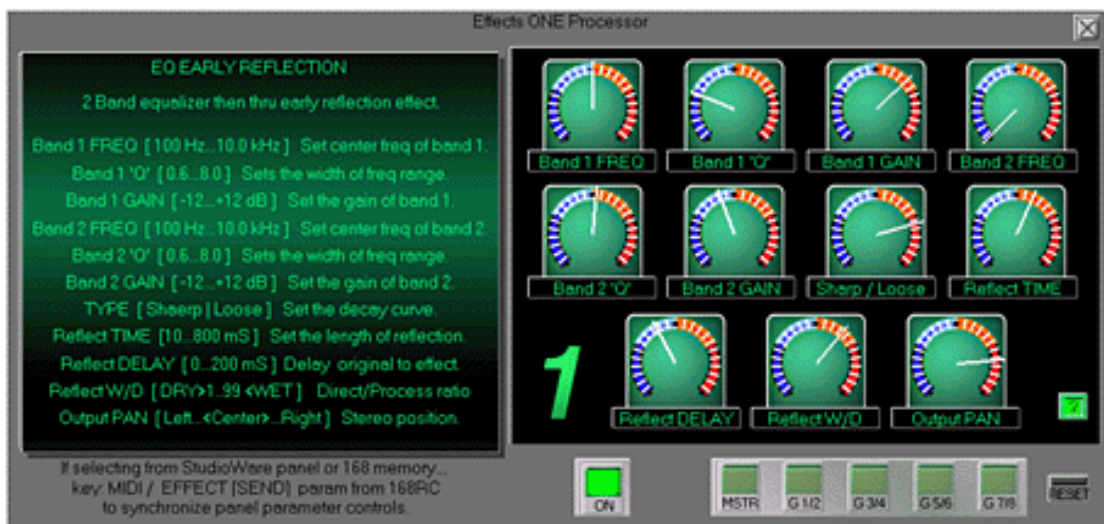
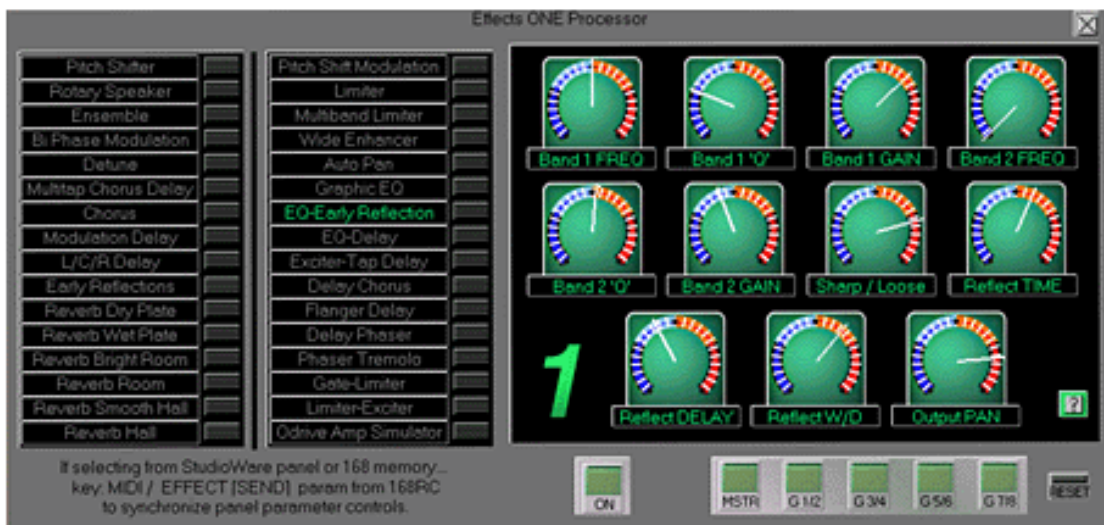
# Effects engines

The effects pop-up panels can be accessed by selecting either of the two **FX1** **FX2** buttons. Both panels are identical, each corresponds to one of the two effects processors of the 168RC.

You can use these effects panels simply as annunciators that reflect changes you make at the Korg or you may use the mouse to control the effects processors on screen.

Unfortunately the Korg does not spontaneously send the values of the parameter knobs when you select an effect type using the mouse. If you do select an effect using the mouse you will then have to synchronize the studiware parameter knobs to the true value of value of the Korg. You do this by having the Korg transmit its current state to the panel. To have the Korg transmit it's current effects state.. go to the mixer surface and press MIDI | Send Parameter | EFFECT | SEND.

If you physically select your effects from the Korg 168RC itself, the parameter knobs will synchronize automatically.



*The effects engine panel - bottom shows on screen help displayed*

There are help screens for all 32 effect types. Access these using the **?** button in the lower right hand corner. These screens contain information from the 168RC manual and explain the possible settings and ranges for the parameter knobs.

It is beyond the scope of Cakewalk's studioware™ language to accomodate the variety of parameter measurements and labels that you find in the 168RC's effects engines.

This design compromise led to the multi-zoned dial skirt.

If you study the skirt you will see that it can represent 3, 4 and 5 zone, left/right and linear selection types that are found in the effects parameters.



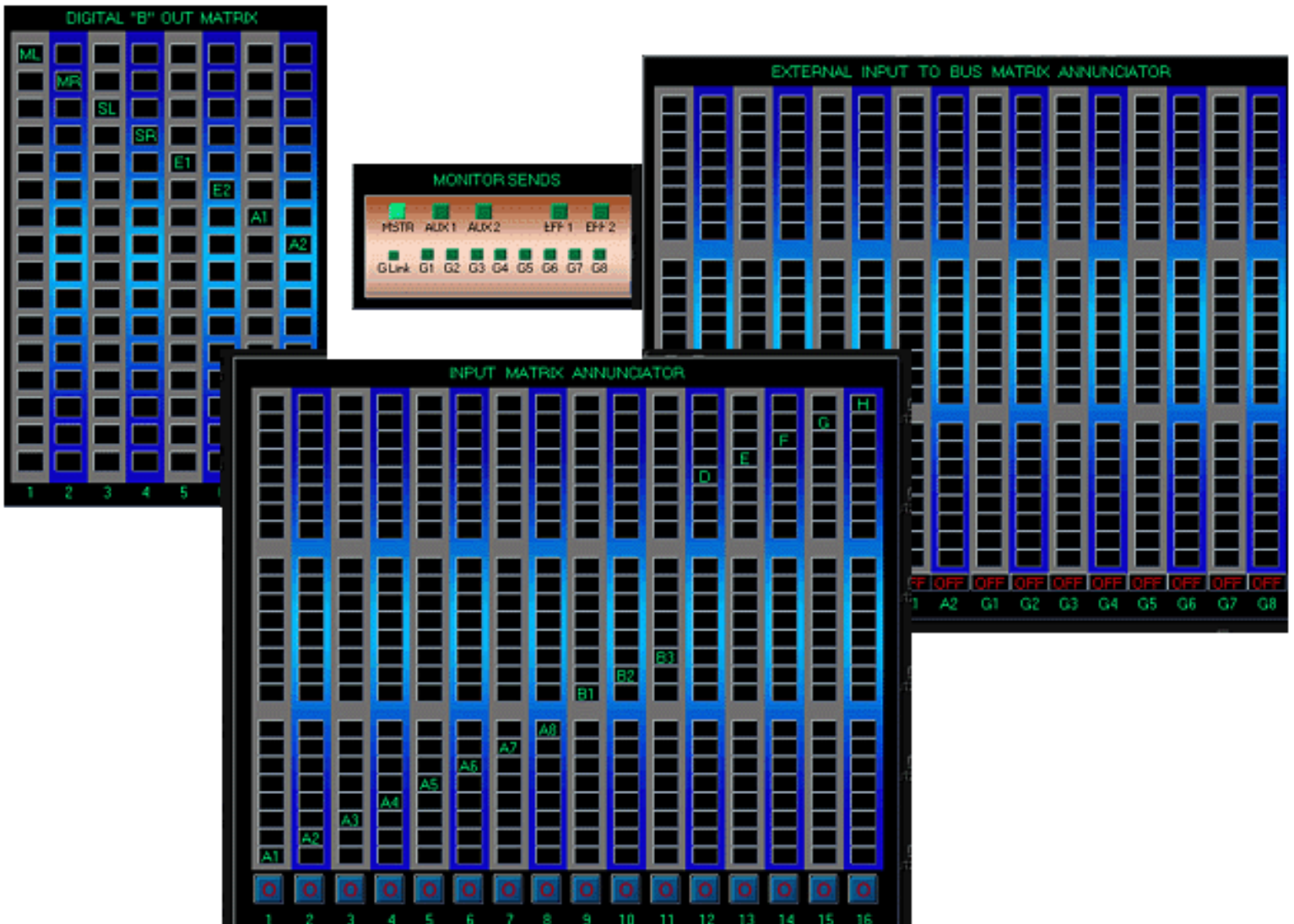
This panel also contains pushbuttons to send the effects to the MASTER and the 8 internal GROUP BUSSES as well as turning the effects engine ON or OFF.

*Sometimes you may find two effect selections lit up. This can happen if you saved the Korg studioware panel off with your project. When you reload the project the panels will reflect an unknown state. You may be coming from another session and have changed the mixer settings. Press the RESET button on the panel to clear the lights.. then select the effect you want to use and send the midi effect data from the Korg to sync the parameter knobs.*

## Routing annunciators



These annunciator pop-up panels allow you to view the internal signal routing of the Korg 168RC.



A small purple square button with the text "INP" in white.

#### INPUT MATRIX

Displays the INPUT SOURCE for all the channels. The PHASE + /- switches for each channel are also on this pop-up.

A small purple square button with the text "IN B" in white.

#### INBUS MATRIX

Displays the audio inputs that are directly connected to the 16 internal busses.

A small purple square button with the text "B>>" in white.

#### 'B' OUT MATRIX

Displays which of the 16 internal busses are sent through ADAT OPTICAL OUTPUT "B"

#### MONITOR SND

Displays the signals that are routed to the monitor

With exception of the PHASE + /- switches on the INPUT MATRIX pop-up, these panels are annunciators only. You must make your selections on the Korg 168RC itself.

*Keep in mind that you must send the Korg's routing parameter values to the panel for these annunciators to display valid data. Synchronize the studioware panel by keying MIDI | SEND PARAMETERS | ALL PARAMETERS then SEND at the mixer.*

---

## Track Arm and Mute



These two control buttons allow you to ARM or MUTE the the track you are using for the 168RC's automation without having to swap windows to get to Cakewalk's Track View.

---



## gorDesign solutions Korg 168RC studioware panel FAQ

*This is a slightly updated version of the original Manual / FAQ that is included with the Classic package. This may not solve all your problems or make you an expert but it should get you started in interfacing and automating the 168RC.*

If you do have questions I prefer that you post them to the Forum rather than email me directly. I do receive any posts as an email and I promise to answer them if can. I want to keep the answers public so I don't have to repeat myself.

I do ask one thing. Please do us both a favor and read this FAQ/Manual through at least once before you post a question.

Rich Gorde  
**gorDesign solutions**  
2001

# Getting Set Up

## ***"What do I need to use this panel?"***

You will need a MIDI IN and OUT cable set connected to a physical MIDI port that can be assigned to the Korg. And of course one of the Cakewalk products that support studioware.

## ***"Can you daisy chain the Korg with other devices?"***

Yes you will be able to daisy chain if the devices you have on the port do not use the channel assignments that the 168RC uses.

The Korg in MIDI MODE TYPE 1 is using **channels 1 through 7** so you should be able to use channels 8 through 16 on the same port. Be aware that in MIDI MODE TYPE 1 the Korg uses the controller numbers from 0 through 95. There should not be any interaction between devices on channels other than 1 through 7, but there may be circumstances.

While we mention it there can be interaction between the Korg and generic studioware panels. I specify an example later in this document.

## ***"How do I set up the Korg to work with this studioware panel?"***

The Korg is ready to go out of the box using the factory defaults, just configure the 168RC's MIDI settings as follows:

### MIDI Setup

- 1) **System Extension: Stand Alone 2**
- 2) **Device ID : 01**
- 3) **Tx Base Ch: 01**
- 4) **Rx Base Ch: 01**
- 5) **MIDI Type: Control Change**
- 6) **Program Change Tx: Program**
- 7) **Program Change Rx: Program**
- 8) **Program Change No.: Default**
- 9) **Parameter Number: Type 1**

### Parameter Mapping

- 1) **Type: Type1**
  - 2) **Jump To: Fader**
  - 3) **Jump To: No. 001**
-

# Cakewalk project settings

## *"How should I configure a Cakewalk project to use the panel and Korg automation?"*

These are settings that you should set for projects that will have Korg automation data.

### 1) MIDI echo set to NONE

*(under Project options/MIDI Input/Echo Mode)*

You must **not** have Cakewalk echo back to the Korg MIDI events it receives from the Korg.

The Korg **absolutely** does not like to have this happen. It can get fairly confused and can put itself into a chaotic configuration.

Now if you are going to do some tracking and have a device that requires echo to be on, then set ECHO ON/AUTO and forget the Korg automation till you are through tracking. I have tried to use the LOCAL PORT option to keep from ECHOing out the port assigned to the Korg but have not been successful.

### 2) Reset all controllers to zero un-checked

*(under Project options/MIDI Out/Zero Controllers when play stops)*

Clear this check box so Cakewalk does not reset the controllers to zero. If you don't Cakewalk will send reset data to the Korg every time playback stops. This too will ruin things putting the Korg into a chaotic configuration.

### 3) Patch/Controller Searchback Before Play Starts

*(under Project options/MIDI Out/Patch controller searchback )*

This really isn't a problem area, but it bears mentioning.

If you have this option enabled Cakewalk will search back and replay all controller events up to the cursor point in the song. This will reset the Korg to any parameters you may have recorded into the Korg track up to the cursor point. If you are editing a section of the song you may not want the 168RC to change it's settings. There are times when you may want this off and there are other times when you will want it on. Another way to handle this would be to leave the option enabled and then MUTE the Korg automation track while you edit.

### 4) DON'T assign a channel number to the Korg track.

Assign no channel number to the Korg automation track. The 168RC uses controllers on channels 1 thru 7. If you assign a channel number you will filter out all events assigned to channels other than the one you selected.

The only time you will want to assign a channel to the track temporarily is when you want to edit the automation data in Cakewalk's piano roll view.

# Synchronicity

It's important that the studioware panel reflect the actual state of the Korg 168RC. Typically you open a new or existing project and then open a studioware panel to work within it. At that moment the state of the mixer is unknown to the panel. To synchronize the two you must send all the mixer parameters, the values of each possible setting, to the studioware panel. You do this by performing a procedure at the mixer itself to "sync" the two.

To synchronize the studioware panel to the current setting of the Korg by selecting at the mixer: MIDI | SEND PARAMETERS | ALL PARAMETERS then press SEND. This will transmit all of the Korg parameters up to Cakewalk and the panel. If you have everything set up correctly the studioware panel will start to animate and eventually reflect the state of the Korg.

Experiment by selecting different scene memories from the Korg and uploading them to the panel using the "sync" procedure.

*Note that you can send different groups of information from the MIDI parameter send menu. For instance you can send just the effects, or the faders and mutes. Take a look at the options. Remember you can always send fresh data to the studioware panel to synchronize. When in doubt.. sync.*

---



## Reasonable Concerns

### **"Will I be able to control the 168RC from it's control surface as well as use the mouse?"**

Absolutely. You just have to make sure that the Studioware panel is synchronized and reflects the true state of the Korg. When in doubt send all of the Korg's current parameter settings to Cakewalk and this will synchronize the studioware panel.

### **"Can I use both the mouse as well as the 168RC to record moves during an automated mixdown?"**

The simple answer is Yes and No.

Using the Korg control surface is a little different from just using the Studioware panel. The thing to understand is Cakewalk considers the Korg 168RC mixer and the Korg 168RC studioware panel to be two separate MIDI devices. Again.. the panel is one MIDI device.. the physical mixer is another. The tables below describe the differences.

#### **Moving the physical hardware controllers on the Korg 168RC**

**Events are recorded as simple MIDI controller events coming from the Korg exactly like a keyboard controller.**

The Korg control surface movements are recorded as MIDI controller data events directly to the track assigned to the Korg. This data can be viewed, filtered and edited using Cakewalk view events option. You may freely add or delete these events.

To use this method record as you would from a MIDI keyboard controller. First disarm the studioware panel record button. Then ARM the Korg's automation track and press RECORD.

#### **Mousing the screen controllers**

**With the studioware panel record button ON mouse moves are recorded during PLAYBACK as studioware events.**

If you do all of your automation mixing using the mouse then this process works just like any other studioware panel automation session. Moves are recorded as you make them during playback .

You may layer multiple passes on top of the same track operating the same controls you did on the previous pass(es). The old automation of existing control movements from prior passes will be overwritten by the latest movements you make. New movements on different controls will be layered into the track.

This seems to work very well. If you aren't familiar with studioware panels in general, please take some time to get familiar with them.

For further information refer to Cakewalk's Help file.

**With that said.. one caveat... Don't mix studioware and Korg events on the same track.**

*Let me try to explain that statement:*

*I have found that it is next to impossible to reliably edit a track where you have recorded control moves into the same track using the two different methods outlined above.*

*Annoyingly it seems that recorded events from the studioware panel become embedded in the Korg automation track.. If I delete all the data in this track the events disappear but the next time you play back the studioware panel makes all the moves that you just deleted! Luckily these events are not sent to the Korg. Apparently they were deleted but some sort of buffer must exist that doesn't get cleared.*

*I have found the only way to remove these artifacts completely is by **DELETING** the entire track.*

*They only seem to 'disappear' on their own if you record new studioware mouse movements into the same track. This is why I generally stay away from recording mouse and Korg control surface movements in the same project. It just seemed a bit buggy to me.*

**"Just for kicks I slam the faders up and down just to see how the studioware panel responds. Wow there seems to be some sort of lag going on here! No way will I be able to use this for real-time editing!"**

Cakewalk places a low priority on the updating of the studioware panel, especially when it is responding to MIDI events that are sent to it from a hardware device. Don't be misled, the MIDI events are flowing from the 168RC in real time and are being received and recorded by Cakewalk in real time. When you play back a mix and scrutinize the automation.. everything will be in sync and even the on screen fader movements will be a bit more snappy. More importantly the Korg will respond the instant the MIDI event is played back to it from the track.

Somewhat along the same line is the 'painfully sluggish' way Cakewalk handles hefty studioware panel redraws. Again don't worry too much about that. The panel is operating asynchronously to the more critical task of playing your music back. Don't get too caught up in the visuals.. use your ears.

**"Do I need to save my Cakewalk work file off with the studioware panel in it?"**

No you don't have to and actually if you do, you will be increasing the size of each project file. You are better off deleting the studioware panel before saving. As long as you do not delete the Korg automation track(s) you won't lose a thing. As a matter of fact it is NOT necessary to have a Korg 168RC panel loaded for the automation to take place and the mix to play back correctly. The MIDI automation tracks will play to the Korg and all will work fine.

If you save the panel off with the project the TRACK parameter will also be saved. Be aware that the saved panel that loads with your file will more than likely NOT reflect the current state of your mixer. Synchronize the panel to the Korg and RESET the effects sections if necessary.

*I personally load a fresh panel when I first load up a project.. it just makes things easier. Make sure you set the **TRACK** parameter on the studioware panel. More often than not I will close the panel if I am still working heavily on the tracks. For the most part the panel is most useful at two key times. The first is **initial tracking** and the second **mixdown**. I use a dual computer system and have one computer dedicated to just running the studioware panel and automation. In my situation the panel stays up all the time.*

# Scary Stuff!

This section covers some troubleshooting tips and operating circumstances and anomalies that can be somewhat disconcerting. It won't cover everything under the sun but if you are experiencing difficulty refer to this section.

## FADER Jumping

Pay attention this is really.. REALLY important... I'm going to repeat myself through out this section, bear with me..

## "Sometimes I think I saw an on screen fader jump to a different position on it's own.. Sometimes I know it did! I heard the volume change! What is going on?"

If this has happened to you when you play back an automated mix you are seeing an anomaly associated with the non-motorized faders of the Korg.

If you have **hooked your faders** (*synchronized them to the up/down fader position LEDs*) the Korg thinks that the volume of the channel should reflect the current position of the physical fader. You can move the physical faders and the volumes change accordingly.

Now you want to play back a project which has a Korg MIDI automation track. You start playback and you are "hands off" the Korg, listening to the automated mix. Along come some previously recorded MIDI controller events that tell the Korg to change the volume level for a channel. The 168RC's channel volume level is now changing according to the MIDI event **but the physical fader never moved**.

Again.. **the level from the physical fader hasn't changed but the Korg's state has and the studioare virtual fader now shows the new MIDI event level**. The studioare panel, which as you remember is another MIDI device, is showing you exactly what the state of the Korg is.

What just happend was that you have **lost synchronization** between the physical and the virtual fader. Now if a little mechanical bump of the hand, or some small voltage fluctuation (chaos) comes along then the A/D converter that is scanning the physical faders will 'see' a tiny position change. The Korg thinks you moved the fader and interprets this as new physical fader input. It sets a new volume level for the channel and generates a new MIDI controller event which cause the virtual fader to snap to the physical fader position.

How to work around this:

The way to eliminate this is to pull all your faders to zero. Then recall the initial settings for the mix from one of the Korg memories. The UP< >DWN LEDs should light to show that the faders are 'unhooked' and that their position currently does not reflect the actual channel level. DON'T hook the faders to the scene memory, leave them where they are. With faders unhooked the Korg will ignore their values. This is exactly what we want... the faders unhooked and incapable of giving us false events. Fader jumping is no longer a problem.

This 'fader jumping' will also occur if you start mixing mouse and physical fader moves. Like the example above, you are unsynchronizing the virtual and real faders when you start mousing the on screen faders.. That's OK while casually making modifications during playback.. but it's a big no-no when

recording an automation track. If you plan on only ever using the mouse.. recall a Korg scene memory and leave the faders 'un-hooked'.

The only reason we even have to think about all this is because the Korg has NO MOTORIZED FADERS that can 'chase' the moused studioware fader settings.

## **"I'm adjusting the Studioware panel but the Korg doesn't respond.. I'm sure everything is OK so what's the problem?"**

Are you certain that:

- 1) The track output port is pointing to the port that is connected to the Korg?
- 2) That you have not assigned a channel number to the Korg's track?  
The Korg is using 7 channels. If you assign a channel number to the Korg track then you will filter out all events except those which are of that channel number.
- 3) That you have synchronized (hooked) the panel by sending the current Korg state to Cakewalk?
- 4) The physical link between the Korg and the MIDI port card is good? Wires OK? The Korg is configured properly to accept data?

## **"Weird stuff happens.. seems that when I rewind to the beginning of a song or start play.. The Korg ends up in a wacky state with some things mysteriously switched off or on. Am I going nuts or what?"**

You probably didn't disable:

- 1) MIDI echo  
(*under Project options/MIDI Input/Echo Mode*)
- 2) Reset all controllers to zero  
(*under Project options/MIDI Out/Zero Controllers when play stops*)
- 3) Patch/Controller Searchback Before Play Starts  
(*under Project options/MIDI Out/Patch controller searchback* ) (*this may NOT be a problem*)

Or you might have:

- 4) Assigned a channel number to the Korg track.  
That's a No-No. The Korg is a multi-channel device.. you will filter out channels if you assign one to the Korg track

- 5) Hit the 'Panic' button

When you hit the PANIC BUTTON Cakewalk zeroed out all the controllers and notes on EVERY MIDI port you have. The Korg setup is now pretty wacked out..

You can test it yourself by loading a scene memory at the Korg and then hitting the PANIC BUTTON.



Then synchronize the studioware panel by keying MIDI | SEND PARAMETERS | ALL PARAMETERS then SEND at the mixer. Take a look at the 1-12 BUS matrix panel. You will notice that quite a few changes occurred there.

It would be great if Cakewalk allowed you to define the ports which would be affected by the PANIC BUTTON, unfortunately they don't.

## **"When I operate the channel 8 fader at the Korg itself I get an interaction with the volume faders of any studioware panel I created for my MIDI tracks. What's happening?"**

Cakewalk uses controller 7 for the volume controller of every Studioware volume fader it creates. Unfortunately Cakewalk doesn't fill in the blank of the channel that this fader is to control. It leaves the channel number unassigned (blank). Pretty much anything coming down the OMNI MIDI line will affect it. Although the Korg is using controller 7 on channel 1, Cakewalk will still respond and move all the generic studioware volume controls to the value of any controller 7 MIDI data. This happens even when I use the VOLUME control on my keyboard MIDI controller. In that case the generic and the Korg studioware faders move.

The good news is that it just seems to be a visual artifact. The levels don't really change and the movements are not recorded. I have tried a few different things to eliminate it and have found no solid fix (short of remapping the mixer). Annoying but from what I can determine, harmless.

## **"When I deselect the realtime update button on the Korg 168RC studioware panel the panel stops updating but the Korg still changes according to the automation in the track. Is that the way it works?"**

Yes. The panel is actually considered by Cakewalk to be a MIDI device and will only update when the UPDATE button is selected. The UPDATE button is in the upper left hand corner of every studioware panel, right next to the record enable button. The UPDATE button only determines whether the panel responds to automation data or incoming MIDI events. This DOES NOT control the automation data flow to the Korg. For further information on how studioware panels operate refer to Cakewalk's Help file.

## **"I try to use the console view and the studioware panel at the same time.. things don't act right.. Sometimes I crash out of the program.. what gives?"**

I have seen this problem with certain versions of Cakewalk Pro Audio but have not made any real effort to experiment. I personally don't use console view.

## **"If I make changes or swap windows in Cakewalk.. the whole system seems to crash or fall asleep."**

For reasons related to the panel size Cakewalk will on occasion appear to freeze after an operation with the Hourglass cursor. Sometimes there is no indication at all. Don't panic ( yet!). Cakewalk is probably not really frozen. It is processing / housekeeping the slew of widgets in the panel. I've personally seen this take a couple of minutes (depending on processor speed). Walk away from it... Just give it some time. If you look at the task list (after a ctrl/alt/del) and the task manager says Cakewalk is not responding. This may not necessarily be the case. Don't end the task.. just let it sit for a bit before giving up. This most often happens when you have recorded a moused studioware session. I have also seen it stall when hitting PAUSE.

If you are going to swap windows and edit things, just click the UPDATE button to keep the panel from processing and therefore freezing everytime you do something.

---

# Automation example

## "Can you give an example of how you have used this panel?"

This particular method is based on operating the Korg faders themselves.. not mousing on screen. I personally don't use a lot of studioware (mousing the panel) automation. I prefer to operate the mixer control surface.

### 1) **Get and save an initial PRESET**

Every project mix has an initial starting point, the state the Korg is in when you first start playback of your project. If you haven't already, it's time to save a beginning state off both to a Korg scene memory and to the Korg's Cakewalk automation track.

Set your initial levels, pans, mutes effects sends etc..When you feel fairly satisfied with them save the state of the 168RC to one of the Korg's scene memories. Do yourself a favor and take the time to label it.

### 2) **Set the project up for a PRE-ROLL**

The PRE-ROLL is that segment of time that precedes the start of any sonic event. It typically gives devices that must all be synchronized a chance to 'catch up' with each other and the playback.

The 168RC is going to be receiving MIDI data from it's automation track. It will be getting first a BANK CHANGE command to cause it to read from it's memory the project PRESET which you made in step 1. What follows the BANK CHANGE will be a MIDI stream of the same PRESET information. This stream is a scene dump that we will record and play back to initialize and synchronize the studioware panel.

Use Cakewalk's INSERT|TIME/MEASURES and add a couple of measures at time zero. This will move all your audio and MIDI tracks so they start at measure 3 or 4. Now you have two or three empty measures before the song begins. This is where you will record an initial MIDI scene dump.

### 3) **Set up the studioware panel**

Load the studioware panel.

Turn **OFF** the RECORD BUTTON on the Korg 168RC studioware panel.

You should get into the habit of doing this everytime you load the panel. In Pro Audio 9.03 the panel always loads in the OFF state. With the record state off you won't have to worry about mouse moves being recorded during playback. Be sure to set the TRACK number for your project's automation track and initialize te track.

### 4) **Record the initial scene into measure one.**

ARM the Korg track and get it ready to record. We are going to now record the MIDI stream that mirrors the project's Korg PRESET memory.

Go to the 168RC and manually recall the project's PRESET memory.

Get set to send the Korg data out it's MIDI port by keying the sync procedure MIDI | SEND PARAMETERS | ALL PARAMETERS. Start Recording in Cakewalk and then press SEND on the mixer. The Korg dumps it's parameters and you have just recorded that dump. Stop recording.

Drag the Korg dump you just recorded to the start of measure one. I usually select this data burst and increase it's length by 200% or so. Stretching out the data seems to ease the burden on playback. Keeps the hiccups down and seems to give the Korg and studioware a chance to synchronize themselves before the music starts. This could just be psychological on my part but you have all the pre-roll time to get it done.

### 5) **Set the BANK CHANGE command for the automation track**

Double click in the SOURCE column of the Korg automation track. This brings up the track properties window.

Select the BROWSE PATCHES button next to the BANK and PATCH data input fields.

Now sort the patches by numerical value by clicking on Patch.

Next select the numeric value of the Korg PRESET memory you used for the project's initial preset.

Answer OK and close the track properties window.

Following the above steps you have now configured the Korg automation track. Now each time you start playback from the very beginning of the project Cakewalk will reset and configure both the 168RC and studioware panel to the project PRESET values.

## Recording an automated mix down

Now that you have your PRE-ROLL data written to the track it's time to record an automated mix.

Before you go any further save the project off.

The next thing you want to do is recall the PRESET for this project and 'hook your faders'. Chase the LEDs on the Korg so that the faders you will be manipulating are '**hooked**'. The faders you won't be touching during the mix **should remain un-hooked** so you don't have a fader jumping problem.

The important thing you want to remember is that you want to preserve the PRE-ROLL data when you record your mixing automation.

One way is to set Cakewalk's record operation to permit SOUND ON SOUND operation. In this mode you can start recording at time zero and you won't erase your PRE-ROLL data provided you don't touch anything until the PRE-ROLL data has passed. . You may also use the AUTO PUNCH feature, PUNCHING IN after the PRE-ROLL and PUNCHING OUT at the end of the song or wherever your mix automation ends.

Whichever method you choose recording a mix down is very straight forward. Simply ARM the automation track and place Cakewalk in the record mode. If you make mistakes or want to try the mix again perform an UNDO. If you are in the SOUND ON SOUND mode you can concentrate on a few faders at a time and keep layering your mix.

Good luck.. post your findings, info, techniques or questions to the forum..

*make music.. love life..*

*"This ain't no dress rehearsal."*

Rich Gorde  
gorDesign solutions