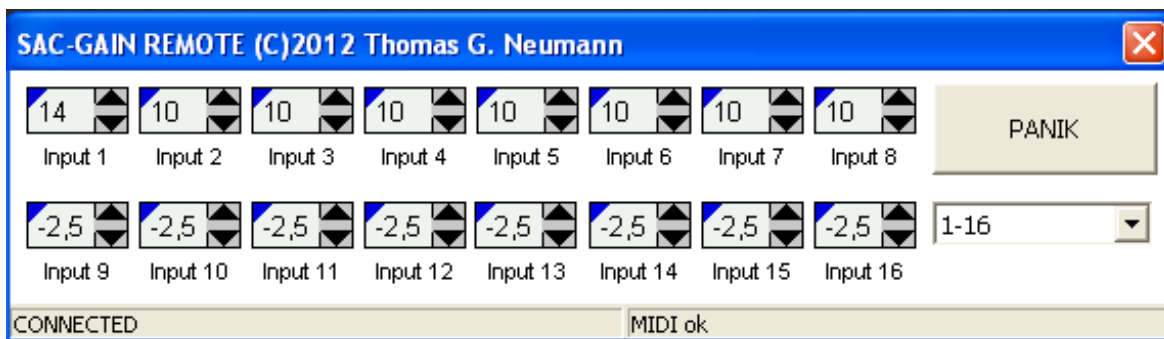


SAC-Remote Controller for S-16 and RGC

# SACCombi

## Gain Plugin for SAC



Manual for Version: 0.9.2.27

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# SAC-Remote Controller for S-16 and RGC

## ***Introduction***

The SAC-Remote Gain Controller for S-16 allows you to control the settings of a Behringer© S-16 or of a appsys RGC using Midi and Ethernet.

### **Warnings:**

- **This software uses the same network connection as your SAC-REMOTE. So it might interfere your connection. Make sure you did sufficient testing before you use the software in a 'real life' situation. No liability can be take for any kind of damage or problems which might arise from the use of this software or the miss-function of the software.**
- **There are reports that adding or removing network aware plug-ins and or closing all remotes with such plug-ins might stop the TCP/IP Host/Master mode, which will make your SAC Host uncontrollable from any remote. To avoid this, run a remote on your host (does not need to have any access, but needs to be connected). This will keep the network alive.**

### **Content of this package:**

- The software **GAINCOMBI.EXE**, which supplies the Network to MIDI bridge and allows the SAC-Gain plug-in to communicate with the S-16. This software runs on the computer which controls the S-16. In most cases this will be the SAC Host PC.
- The plug-in **SACCOMBI.DLL**, which is a native SAC/SAW plug-in.  
You need to install it on any computer in your SAC system.
- The software **LocalGain** allows you to operate the plug-in without the need to run SAC.

# SAC-Remote Controller for S-16 and RGC

## Basic Concept

- The pc connects to the S-16 and/or the RGC via midi. For full functionality both connections, MIDI-IN and MIDI-OUT are used (for S-16 only).  
For simple operation you need only the connection PC MIDI OUT → S-16 MIDI-IN.
- The software GAINCOMBI.EXE runs on that machine. It converts the network commands into midi commands and sends them to the S-16 or the RGC. It also mirrors the changes to all other instances of the plug-in currently running in the network.
- The plug-in DLL runs either as a plug-in in SAC or standalone using the LOCALGAIN.EXE software. The plug-in sends commands via network to control the devices and receives information about changes issued by other plug-ins.
- The plug-in can run on the same machine as the GAINCombi software or on an other machines, if a valid TCP/IP connection is active to the control pc.
- If midi-in is connected and enabled, the GAINCombi.EXE software monitors for changes by the user using the front panel controls of the S-16 and sends it to the plug-ins. This feature is currently in development, use it with care.

# SAC-Remote Controller for S-16 and RGC

## Installation

### *Installation of the GAINCombi software.*

1. Store the GAINCombi.EXE file to a folder.

2. The GAINCombi software should start before the start of SAC.

The best way to archive this to create a link to the

GAINCombi.EXE and put it link into the Start-Up folder in the programs folder.

3. Start the GAINCombi.EXE. It will start minimized, so you'll see only a header in the taskbar.
4. If a window pops up, allow the software to access the network.
5. Double-click on the header to open the GAINCombi window.
6. Write down the IP shown in the header. You'll need this later for the setup of the plug-in(s) to find the server.
7. In the upper left choose the midi-out port to connect to the midi-in port of the S-16. This connection is necessary for the remote control.
8. You can also choose a midi-in device to receive messages from the S-16. The midi-in functionality is optional.
9. You might configure the GAINCombi software to fit your needs. See page 5 for details.
10. Click the START MIDI button to connect to the external devices.
11. If you want to change the default port (14) for the TCP/IP connection then click the SET PORT button and enter the desired value.
12. Close the GAINCombi software in order to save your settings.
13. Restart the GAINCombi software.



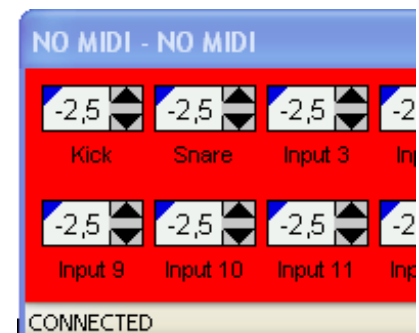
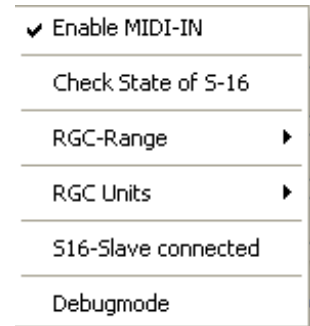
# SAC-Remote Controller for S-16 and RGC

## *The Pop-up menu of the GAINCombi software*

The GAINS16 software contains a pop-up menu which allows you to configure it. To open the pop-up menu click on the GAINCombi window, but not on the list on the right and not on the ip-port edit area.

The pop-up menu contains those items:

- **Enable MIDI-IN:** enables the GAINCombi software to listen to midi-messages sent by the S-16. When the midi-in is running, the software informs the plug-ins of any change done on the front panel of the S-16.
- **Check State of S-16:** available only if the midi-in is running. This option checks the midi connection every 3 seconds using a special command. When the midi loop is interrupted all plug-ins receive a warning message causing them to change to red and to show NO MIDI in their header. As soon as the midi connection operates again, the color changes back to normal.

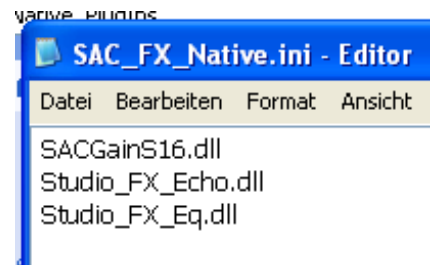


- The GAINCombi software shows the state of the connection on its lower left.
- **RGC-Range:** Select the start-adress of the RGC you use. We suggest that you change it to device 2 in order to avoid interaction with the S-16 control commands.
  - **RGC-Units:** You can select the devices currently connected to the RGG in this sub-menu. Removing devices not connected reduces the amount of cpu power needed.
  - **S16-Slave connected:** Enable this setting if you operate more than one S-16.
  - **Debugmode:** Enables the debug-mode (all commands shown in the window) for the GAINCombi software. Use this setting only in case of problems.

# SAC-Remote Controller for S-16 and RGC

## ***Installation of the SACCombi.DLL Plugin***

1. The plug-in is a native SAC plug-in. Therefore you need to put the SACCombi.DLL file into the Native\_Plugins folder in the SAC directory.
2. You need to add the line SACCombi.DLL into the SAC\_NATIVE\_FX.INI file. Just double-click on the file's name and the file will open up in the editor.  
Add the line and save the file. Make sure to end each line (the last line also) with a RETURN, otherwise the last entry will not appear in SAC.
3. Now the installation is completed.
4. Start your SAC Host.
5. Add the SAC-GAIN plugin into a FX slot.
6. Open the Setup of the plug-in. See page 10 for details about the setup.
7. Enter the IP of the GAINSETTER.
8. Confirm with OK.



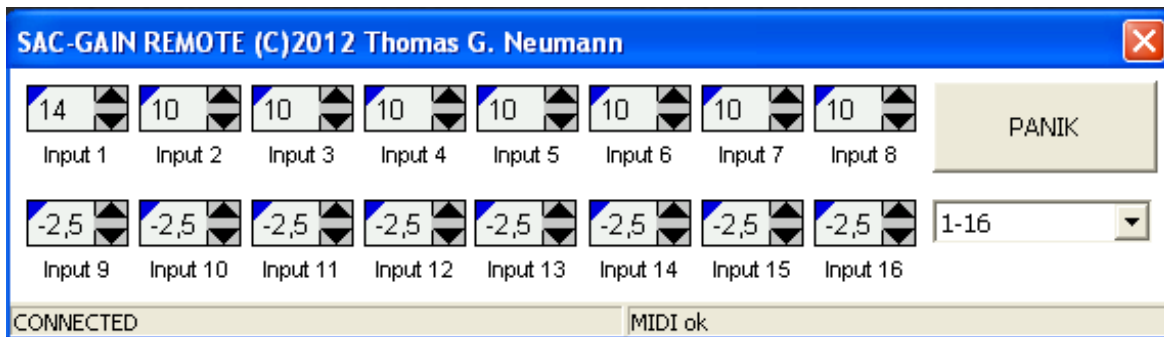
## ***Installation of the LocalGain tool***

1. Put the software LocalGain.Exe into the desired folder.
2. Put a copy of the SACGain.DLL into the same folder
3. To start the gain-control just run LocalGain.exe



# SAC-Remote Controller for S-16 and RGC

## Operation



- Insert the SAC-GAIN Plug-in into a FX slot in SAC or run the LocalGain software.
- The assignment of the input-channels depends on your selection in the setup window, which is described on page 10.
- Use the channel selection below the panik button to select the channels you want to edit.
- The values shown are dB values.

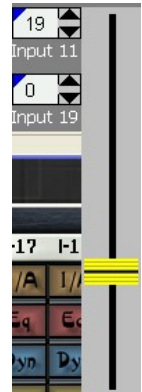
# SAC-Remote Controller for S-16 and RGC

## ***Set the gain for a channel***

There are different ways to change the gain of a certain channel:

- Click on the arrows on the right to change the gain-value in steps of one.
- Hold down the mouse button while the mouse is over one of the keys at the right, and a slider will show up.
- Click on the number to open a pop-up menu. You can choose a value from it. It also contains four presets.

- To recall a value assigned to a preset or one of the values on the left, just click on the entry.
- To assign the current value of this input to a preset, hold the shift key and click on the preset you want to change. A small window will show up.  
Enter the label in this window, then confirm.



## ***Enable/Disable the phantom power of the S-16***

To enable or disable the phantom power of a certain channel (or of a pair of channels if linked), just open the pop-up menu and check/un-check the Phantom Power entry.



If the phantom power is enabled, the space between the arrows on the right of the edit area becomes red.

-2.5 dB	22.5 dB	Snare
0 dB	25 dB	Bob's Kick
2.5 dB	27.5 dB	Tomy's Snare
5 dB	30 dB	TThorsten Special
7.5 dB	32.5 dB	WTFinn Exclusive
10 dB	35 dB	Recall Safe
12.5 dB	37.5 dB	Phantom Power
15 dB	40 dB	
17.5 dB	42.5 dB	
20 dB	45 dB	

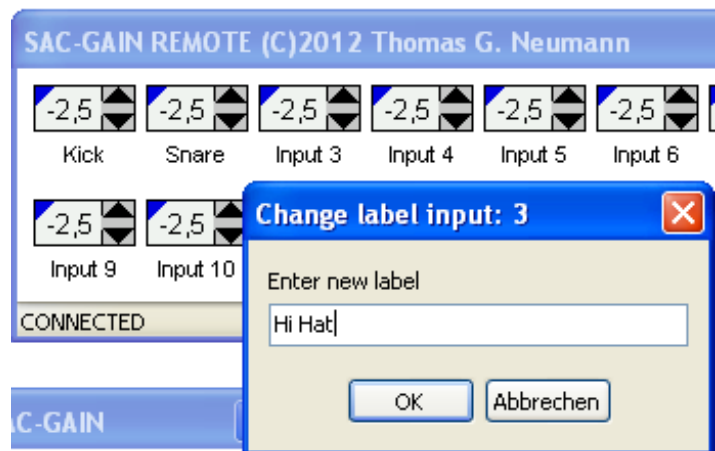


# SAC-Remote Controller for S-16 and RGC

## ***Change the label of a channel***

To change a label, hold down the shift – key on the keyboard and click on the label to change. This opens a small window where you can edit the label.

Holding down the Ctrl key while clicking on a label enables the consecutive label-edit mode. In this mode the edit window for the next channel opens up when you confirm your entry using either by hitting the return key or by clicking on the OK button.



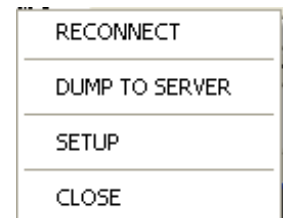
## ***Set all Gains to Zero (PANIK)***

The PANIK button on the right sets all gain values to the lowest gain available, which is -2.5dB for the S-16 and 10dB for a ADA connected to a RGC.

## ***The pop-up menu of the plug-in***

The plug-in contains a second pop-up menu, which pops up if you click outside of the gain-control areas.

- **Reconnect:** Try to restore the connection to the GAINCombi software. This breaks an existing connection and starts it again.
- **Dump to Server:** Sends all Data to the GAINCombi software. Try is if the settings on the devices differs from the settings on the plug-in.
- **Setup:** Opens the setup-window. See page 10 for details about the setup-window.
- **Close:** Closes the window.



# SAC-Remote Controller for S-16 and RGC

## Configure the plugin (Setup-Window)

To configure the plug-in invoke the setup-window using the entry SETUP in the pop-up menu of the plugin.

- **Stereolink:** link two inputs. If the inputs are linked, then a yellow bar is shown between

the two value displays. The linked input's gain values and phantom-power setting will change simultaneously when you change any of the two values. When you exit the setup, the plug-in reduces the higher gain of both input to fit the other value. The names are not linked.

- **Channel Count:** Select the amount of channels you want control with the plugin. This reduces the amount of data handled.
- **IP-Adress:** The IP of the computer which hosts the GAINCombi software.
- **IP-Port:** Use this setting to change the port used for the ip connection to the GAINCombi software. This setting must fit the port-setting in the GAINCombi software.
- **Channel-assign area:** This area on the left allows you to adapt the plugin to your hardware. The selection works in groups of eight and from top to bottom. The topmost entry defines the hardware assigned to the channels 1-8 of the plugin.
  - **AGC:** The hardware is controlled via the RGC unit. The plug-in assumes that you use ADA8000 and shows the gain-values accordingly. Phantom-power is not supported for this channels, and the gain-setting ranges from 10dB to 60dB in steps of 2dB..
  - **S-16:** The hardware is an S-16. Phantom-power switching is supported, and the gain ranges from -2.5dB up to 45dB in steps of 2.5 dB.

S-16 Remote Setup

AGC 1-8  
S-16 1-8  
S-16 9-16  
S-16 17-24  
S-16 25-32  
AGC 9-16  
AGC 17-24  
AGC 25-32

Stereolink

☐ 1 + 2 ☐ 9 + 10 ☐ 17 + 18 ☐ 25 + 26 ☐ 33 + 34  
☐ 3 + 4 ☐ 11 + 12 ☐ 19 + 20 ☐ 27 + 28 ☐ 35 + 36  
☐ 5 + 6 ☐ 13 + 14 ☐ 21 + 22 ☐ 29 + 30 ☐ 37 + 38  
☐ 7 + 8 ☐ 15 + 16 ☐ 23 + 24 ☐ 31 + 32 ☐ 39 + 40

Channel Count: 24 Channels  
IP-Address: 192.168.178.20  
IP-Port: 14

Abbrechen OK

# SAC-Remote Controller for S-16 and RGC

## Hints:

- Changes of the link-settings and the are reported to all clients connected.
- Configuration and IP settings are not shared to other plug-ins. We strongly suggest that you edit this settings only on the host. The clients will update when they connect again.
- You should use the IP value that the GAINCombi software shows in its header on the server in order to allow the remotes to access the GAINCombi, too. Using localhost (127.0.0.1) on the host will work fine for the host (if the GAINCombi software runs on the host), but the remotes will fail to connect.

## Using the Plug-in with SAC's Scene Control

The SACCombi plugin manages the gain of different channels but is plugged into only one slot in SAC. So, if you're saving or recalling scenes with SAC's Scene control, the settings of a plug-in is recalled only if the plug-in is plugged into one of the selected channels.

This lets you recall either the setting of all channels or of none at all.

You can use the **Recall Safe** setting of each channel to exclude this channel from the recall.

To enable or disable the setting, open the pop-up menu of the channel and click on the **Recall-Safe** entry.

A channel with Recall-Safe enabled is not affected when the gain-values are recalled.

The status of each channel is indicated by the color of the triangle in the upper left corner.

A red triangle indicates that this channel is recall-safe, a blue one indicates that it's value changes when the settings of the plug-in are recalled by the scene-recall functionality of SAC.



# SAC-Remote Controller for S-16 and RGC

## Hint

- **Closing all remotes might disable the TCP-Host setting in the SAC-host. To avoid this, run a remote on your host and minimize it.**
- **The S-16 feedback to the GAINCombi Software is on development, please use it very carefully. We suggest not to use it in a productive situation.**
- **The software has been tested using one S-16 and one ADA-8000 connected via a RGC device.**

## Release Notes

- 18-06-2013 (V 0.9.2)
  - Converted to combi-mode (both RGC and S-16)
  - Added channel assignment
  - Added limitation of channels
  - Some fixes and changes
- 22-12-2012 (V 0.9)
  - Changed for S-16
  - Setup menu added to GAINS16.EXE
- 17-09-2012 (V 0.8)
  - Recall save added
  - The GainSetter starts with all gains zero now (previously starts with last settings).
- 16-06-2012 (V 0.6)
  - Presets will link
  - Changed interface's graphics.

## SAC-Remote Controller for S-16 and RGC

- 16-06-2012 (V 0.5):
  - Added local host
  - Added sequential label edit
  - Internal optimization
  - Fix: Label 9 not refreshed correctly.
  - Fix: 'Connection closed gracefully' message.

### Notes:

- The copyright of both software and documentation is owned by Dipl.-Ing. (FH) Thomas Neumann.
- We offer other audio related software products also. You might take a look at SATlive ([www.take-sat.de/english/main.php](http://www.take-sat.de/english/main.php)) and LevelCheck ([www.levelcheck.de](http://www.levelcheck.de)).
- Feel free to send us feedback and suggestions to [SAC-Gain@take-sat.de](mailto:SAC-Gain@take-sat.de)
- You'll find more details of the RGC on the website of appsys ([www.appsys.ch](http://www.appsys.ch))
- I'd like to thank Rolf (appsys) and Thomas (Behringer R&D) for their support and all the information they supply.
- SAC (Softwareaudioconsole) is a product of RML ([www.softwareaudioconsole.com](http://www.softwareaudioconsole.com))