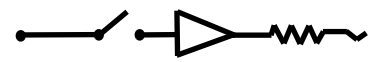# **RST** Quick Start Guide

While the RST Midi Foot Controller has a deep and comprehensive feature set,for the majority of users, the primary concern will be to assign the Switch Types, assign midi cc numbers to the Direct Access (DAC) switches and pedals, and set up various midi program changes to the midi devices you wish to control. Then create Presets of various DAC combinations along with midi program changes to organize your sounds.This quick start guide will assist you in getting up and running as quickly as possible.

## Navigating The Display in Edit Mode

First you need to know is how to navigate the display. Once you have this down, its easy and intuitive to get around the RST. After power up, press the CLEAR/EDIT switch to enter Edit Mode.You can then navigate thru the Edit pages with the BANK UP (+) and BANK DOWN (-) switches. Once you are at the Edit Page you are looking for, notice the flashing *block cursor*. It will be flashing over one of the editable fields. You can then move the flashing block cursor to another editable field by using the < (9 / Direct) and > (0 / Store) switches directly on either side of the display. An RST Edit Mode page may have more than one editable field depending on the functions on that page. Once you are on the field you want to edit (as indicated by the flashing block cursor) press the ENTER/ UNDO switch. The block cursor will now underscore to indicate the field can now be edited. Then use the BANK UP/DOWN (+/-) switches to change the function to the desired value. This could be a particular function, a character or a number. If a number, you can directly enter the number using the 10 numbered switches. Always use a leading zero. If you make a mistake, press the Clear/ Edit switch. Then re-enter the desired data. Once you have entered the correct data, press the ENTER/UNDO switch to store the data. At this time, the block cursor will return. Seeing the block cursor means you are able to move to another Edit page, or exit Edit mode and return to normal performance mode. To move to another Edit page, press the BANK UP/DOWN (+/-) switches. To exit Edit Mode, press the CLEAR/EDIT switch. *Note: You must see the flashing block cursor in order to leave the editable field and/or Edit page.*

## Assigning Switch Types in Edit Mode

The first thing you will likely want to do is set up your switch types. *Factory default is all switches = Preset A* . This means all user assignable switches operate as Preset A switches in *normal Performance (Bank) Mode*. However, when *Direct Mode*, all switches will respond as Direct Access Controller (DAC) switches. Direct Mode is activated by pressing the DIRECT (< / 9) switch. Toggle this switch to instantly change between Direct Mode and Performance (aka Bank or Preset A) Mode at any time. Remember: If you have assigned switches to any type other than Preset A, they will remain as assigned in either Performance or Direct Mode.
*Note: No matter how many Preset A switches you have assigned, those switches become DAC switches in Direct Mode.*
Currently there are 16 different Switch types.We will concern ourselves with DACs and Preset A assignments for this tutorial. Switch Types are global; that is, the same in all Banks. See user manual for complete description of all Switch Types.
Chances are, you will want to have a certain number of dedicated Preset A switches, and the rest be Direct Access Controller (DAC) switches which will free you from having to toggle between Direct and Performance (Preset A) Modes. Its up to you. You can always change (add or delete Preset A switches) while always retaining the Preset data in memory. And you will always have 200 Banks.

*To Assign Switch Types:*
1. Find the SWITCH TYPE page in Edit Mode
   (See "Navigating the Display in Edit Mode" above).
2. Select the Switch you want to edit. The Display will show the switch number,and the LEDs will be their respective colors based on type.
3. Press the ENTER/UNDO switch to underscore the editable field and use the BANK UP/DOWN(+/-)switches to select the switch type. The LED will change color depending on the switch type. Red = DAC. Blue = Preset A. Once you see the switch type you want, press the ENTER/UNDO switch to store the change. The block cursor will now be displayed,allowing you to leave the field or page.
4. Repeat #2 and #3 for each switch.



## Assigning DAC CC and Channel #s in Edit Mode

Once you have set up your switch types you will want to assign midi cc and channel numbers to your DAC switches. These assignments are global: that is, the same in all Banks. DAC cc value = 000 (LED off) and =127 (LED on) when LED edit field = "+"
You can reverse the LED to cc value relationship so that cc value 000=LED On and 127 = LED off by Setting the Edit field to "-"
You can assign both midi cc and channel numbers for each DAC switch in the RST regardless of its switch assignment. This way you can go back and forth, assigning or un-assigning Preset A switches without fear of losing controller # or channel #s for each switch. The DAC Edit page also displays the Switch Type for the selected switch. You can also send midi Notes instead of CC's.
*In addition to midi cc#s assigned to physical switches (DACs) the RST has an additional set of up to 8 user programmable cc's called VCA's(and B's) each on their own midi channels whose states can be sent out via Preset A (or B) selection. Both their setup and states have their own Edit Mode pages and can be accessed via standard Edit Mode navigation. See User Guide for more details on these powerful features.*

### To Assign DAC CC and Channel #s:

1. Find the DAC page in Edit Mode
   (See "Navigating the Display in Edit Mode" above).
2. Select the Switch you want to edit. The Display will show the switch number.
3. Press the ENTER/UNDO switch to underscore the editable field for cc (Cc:xxx)and use the BANK UP/DOWN(+/-)switches to select the 3 digit cc# , or use direct number entry with the 10 numbered switches, and always use leading zeros. Or press CLEAR/EDIT to enter --- which means no cc# will be output for that switch. Once you see the number you want, press the ENTER/UNDO switch to store the change. The block cursor will now be displayed,allowing you to leave the field or page.
4. Repeat #2 and #3 for each switch.
5. Use the same procedure as above to set the Channel # and LED polarity (if necessary).

## Storing DAC Combinations in RST Bank/Preset A

This is the easy part. Once you have all your Preset A and DACs switches set up, just select the Bank/Preset, select the combination of DAC switches you want on in that Bank/Preset, and press the STORE switch. Thats it. You can edit this Preset combination at any time by selecting any of the DAC switches, either on or off.When the Preset is edited a "C" will appear in the Display, indicating the Preset has been changed. If you like the change, press STORE. If you don't like the edited combination, press UNDO. The "C" will then disappear. Often you will make and store these Preset combinations first, before going into Edit Mode and setting midi Program Change and cc pedal commands, but it is not mandatory you do so.

## Assigning CC Pedals in Edit Mode

The RST has four CC pedal ports for connection of up to 4 passive controller pedals for effects parameter control. These ports can be assigned globally: that is, the same cc and channel setting for all Banks/Presets or they each can be assigned to follow both Preset A or Preset B commands. Both cc and channel #s are programmable. Any low impedance passive pedal can be used. The pot value is optimal around 10K ohms, but most any low impedance pedal can be used. Pedals from Boss (FV500L) and Mission (EP-1) are recommended. A TRS connection is required, with pedal "wiper" (or output) wired to RST Pedal port "Ring". RST Pedal port Tip connects to Pedal pot "high side" (or Pedal input) and Sleeve is common or ground.

### To Assign CC Pedals:

1. Find the PEDAL page in Edit Mode
   (See "Navigating the Display in Edit Mode" above).
2. Select the Pedal you want to edit via the Switches 1 thru 4. The Display will show the switch number, and the respective switch LED will be lit green.
3. Press the ENTER/UNDO switch to underscore the editable field for cc (Cc:xxx)and use the BANK UP/DOWN(+/-)switches to select the 3 digit cc#, or use direct number entry with the 10 numbered switches, and always use leading zeros. Or press CLEAR/EDIT to enter --- which means no cc# will be output for that pedal. Once you see the number you want, press the ENTER/UNDO switch to store the change. The block cursor will now be displayed,allowing you to leave the field or page.
4. Repeat #2 and #3 for each Pedal.
5. Use the same procedure as above to set the Channel # and Assignment: either Global (Default), Preset A or Preset B.

*Note: If you are assigning cc Pedal commands per Preset, start from the Bank/Preset you want to send from BEFORE entering the PEDALS page in Edit Mode*

# RST Banks,Presets and Midi Program Change Commands

A *Preset* (A or B) in the RST is a user defined switch function that is usually part of a mutually exclusive (one at a time) group which allows several midi events to occur simultaneously. When you select a Preset A (or B) switch on an RST, multiple commands are sent. Typically, it is a series of cc commands depending on the combination of DAC and VCA states you have stored in that Preset, along with controller Pedal data from up to 4x cc pedals. In addition,the RST is capable of sending up to 8 midi Program Change commands on 8 separate midi channels, *per Preset A (or B) selection*.

**Now is a good time to mention Preset B.**
Preset B is a user assigned set of switches (or even just 1x switch) that can be used as a GLOBAL independent midi Program changer, with its own set of up to 8 fully programmable unique cc commands that can be sent as well. It shares the same Midi Program change Device setups as Preset A, but works independently with regard to Program changes sent. And a Preset B assigned switch also has the unique ability to send multiple cc commands (up to 8) from 1x switch, when "Global B" is set to "y" on the USER Edit Page. See User Guide for more on Preset B.

The RST has 200 Banks for storing Presets no matter how many Preset A switches you choose to assign. You select Banks via The Bank Up/Down Switches (+/-) You can individually step or scroll thru the Bank selections. You can also limit the number of Banks you have access to, and Preview the Bank selection as well. Previewing is handy when you don't want to hear immediate selection of Bank/Presets, which can cause extraneous noises if sending many program changes. Previewing also allows you to see the upcoming Bank/Preset title *prior* to selecting it. Bank editing is done via the BANK Edit Page using the typical editing procedures.

There is also a GLOBAL (Preset A and B) setting which allows de-selecting any currently active Preset, and will put you into the *Global Preset*,which is actually a preset with all the capability of regular Presets (A or B) but is the same in all Banks. When selected, "GLOBAL" will be visible in the display. This mode is assignable from the USER Page in Edit Mode.

### "All Direct" Mode

Another cool feature is when *NO* Preset A switches are assigned.In this mode, *you still have 200 preset combinations* accessible via Bank selection. Every Bank is a single Preset with all the functionality of typical Presets (A or B). If Bank Preview is off you directly select with the BANK UP/DOWN switches, and if Bank Preview is on, you scroll between Bank "Presets" and select with the DIRECT switch.These "Presets" have their own unique memory locations so you can always add or delete Preset A's at any time and not lose Preset settings in either mode.

**Before assigning midi Program Changes to various RST Preset A's you may want to set up your Devices from the Device (DEV) Edit Page.**

Follow typical Edit Mode navigation procedures to get to the DEV page:
1. Use the 8x numbered switches to select the Device you want to set up. The selected switch LED will be light blue and the display will indicate the Device selected.
2. Select the Device editable field and title the selected device if you wish using the title edit procedure. (See below).
3. Select and edit the midi channel for the device.
4. Select and edit Bank Type if necessary. Consult the target device manual to see if midi Banking is necessary. If you are uncertain about this, leave BType set to None (Default).

**To send Midi Program Changes from the RST, start from the Bank/Preset you want to send from BEFORE entering Edit Mode. You can leave the Edit Page parked at PRGMCHG-A to facilitate easy editing of Program Changes for each Bank/Preset**

**To Assign Program Change Commands:**
1. Find the PRGMCHG-A page in Edit Mode (See "Navigating the Display in Edit Mode" above).
2. Select the Device you want to send Program Changes to via the Switches 1 thru 8. The Display will show the switch number, and the respective switch LED will be lit blue.If you have previously titled your device, its name will appear in the display as well.
3. Press the ENTER/UNDO switch to underscore the editable field for Program (Program:xxx)and use the Bank Up/Down(+/-)switches to select the 3 digit Program Change # (000-127), or use direct number entry with the 10 numbered switches, and always use leading zeros. The Program Change command is sent immediately and you should see the change on the target device. If you want to start over, press the CLEAR/EDIT switch.Once you see the number you want, press the ENTER/UNDO switch to store the change. The block cursor will now be displayed,allowing you to leave the field or page.
4. Repeat #2 and #3 for each Device.
5. Use the same procedure as above to set the Bank # if used.

## Bank/Preset/Song/Device Titling

Each RST Bank Preset can be given a unique title or name with up to 20 characters. You can also name the devices you are controlling (in the Devices page) with up to 10 characters. And when using Song Mode, each Song can have its own unique name. See User Guide for more info on Song Mode.

### To Assign Titles To A Bank/Preset:
1. Start from the Bank/Preset you want to title before entering Edit Mode.
2. Find the PRESET TITLE page in Edit Mode (see "Navigating the Display in Edit Mode" above)
3. Press ENTER/UNDO to underscore the editable field and use the BANK UP/DOWN (+/-) switches to begin scrolling between the available characters.
4. Use the < and > switches on either side of the display to navigate left and right between the 20 character positions, and use the CLEAR/EDIT switch to backspace if you make a mistake or just want to clear the display.
5. Once the title has been entered, press the ENTER/ UNDO switch to store the title. The block cursor will now appear, allowing you to leave the page/or Edit Mode

TIP:
1. Use Switch #1 to directly get to the top of the upper case letters list.
2. Use Switch #2 to directly get to the top of the lower case letters list.
3. Use Switch #3 to directly get to the top of the numbers list.
4. Use Switch #4 to directly get to the top of the characters list.

*Note: Use the same Preset Title Edit procedure when titling Device and Song Names.*

## Connections:

**4x CC Pedal Ports**
**(Use TRS Connections)**
**T= Passive Pot High Side (or Pedal Input)**
**R= Passive Pot Wiper (or Pedal Output)**
**S= Passive Pot Low Side (or ground)**
**10k-25k is best. The lower the better.**

**Isolated 9vdc @150 ma.**
**Short circuit protected.**
**Suitable for powering a Wah and Tuner**

**Master/Remote for syncing multiple units. Uses standard Mic Cables for connection.**

**CAE use only**

**USB For Data Archiving/ updates via computer**

**9vac/dc In @500ma.**

**CAE Use Only**

**Midi In/Out\* Phantom Power On Midi Out Pins 1&3**

**4 pin XLR\* Midi Out with Phantom Power Pin 1 = Power +/- Pin 2 = Power +/- Pin 3 = Midi Out Pin 4 Pin 4 = Midi Out Pin 5**

**Need more info? Contact bob@customaudioelectronics.com**

**\*Both Midi Out DIN and XLR are available for use at the same time**

**Full Operating Guide Coming Soon!**
**Watch For Addendum's to this Quick Start Guide on the CAE website**