QSR Drum Synthesizer

Getting Started Guide

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Refer to this guide when setting up your electronic drum kit using the Alesis QSR synthesizer as a programmable sound module.

What you need to know

If you need more information about sample-based synthesis, MIDI control, electronic drum kits, or the Alesis QSR, you should review the concepts presented in the online **QSR Drum Synthesizer Manual**. I have provided excerpts from various sources that cover the most important concepts and links to download the relevant user manuals.

You should use the provided links to download the user manuals for

- the Alesis QSR,
- Alesis Sound Bridge software, and
- QS Edit Pro software from Sound Tower, Inc.

You may want to learn more about fundamental topics before you begin, depending on your knowledge. Links to reference materials are provided, where you will find additional information.

Planning your system

You can use the QSR with a wide range of pads, triggers, and controllers to create simple or complex electronic kits. Users who are new to electronic drum synthesis should start with a simple system configuration. You can always expand your system as you gain experience or when your needs change.

An example of a simple system is the QSR connected to an Alesis Control Pad. The Control Pad can directly trigger sounds because it integrates 8 piezo pads with electronics that convert the trigger signals to MIDI

Typical QSR Drum Kit Configuration
1 — Cymbal pads (x2)
2 — Alesis Control Pad
3 — Piezo drum pad
4 — Hi-hat cymbal pad
5 — Rim-mounted trigger
6 — Hi-hat controller pedal
7 — Kick drum pad

Figure 1: The drum kit configuration described in the QSR Drum Synthesizer Manual

Even if you are setting up a complex system, I recommend initially testing the Alesis Control pad (or other self-contained controller) with the QSR. This will simplify troubleshooting if you have problems.

Once you have established connection and verified that the MIDI channels and Note Numbers are set correctly, you can test other components.

commands. Simply connect the MIDI output of the Control Pad to the QSR and immediately begin exploring the QSR's internal drum and percussion sounds.

A typical (medium-complexity) system is shown in Figure 1. This is the kit that I describe in the QSR Drum Synthesizer Manual. This kit uses both the Alesis Control Pad and the Alesis Trigger iO to control the QSR. Various pads and triggers are connected through the Trigger iO.

After you decide what components will be added to your kit, you will need to order your hardware. In addition to pads, triggers, and controllers, don't forget to consider cables, MIDI mergers, stands, and pedals. After the components arrive, you can begin to bring your system to life.

Bootstrapping your system

You will test your system in stages:

1. **Install and configure the software.**
2. **Connect the computer to the QSR and test the MIDI interface.**
3. **Configure the QSR Global settings.**
4. **Connect your trigger interface, Control pad or other MIDI devices and test the hardware communication.**

Software installation and configuration

You will need two software packages for editing and programming the QSR:

- Alesis Sound Bridge software, and
- QS Edit Pro software from Sound Tower, Inc.

Alesis no longer supports Sound Bridge but it is available for download from QSRdrums.com. QS Edit Pro, a third-party application available from Sound Tower, Inc., allows visual editing of QSR program, mixes, effects, and global settings. Sound Tower charges a small licensing fee for the software but I recommend it. You will find it impractical to edit the QSR using the front panel controls.

After downloading the software, carefully read and follow the manufacturer's installation instructions.

Figure 2: Sound Tower QS Edit Pro download page

Sound Tower QS Edit Pro setup procedure:

> Note: Follow these critical steps when setting up QS Edit Pro. Failure to set Global Settings parameters properly will cause unpredictable behavior. If all else fails, return to this section to double-check your settings.

1. Install the QS Edit Pro software
2. Connect your computer MIDI interface to the QSR MIDI In and MIDI Out ports. Refer to the instructions for your specific MIDI interface.
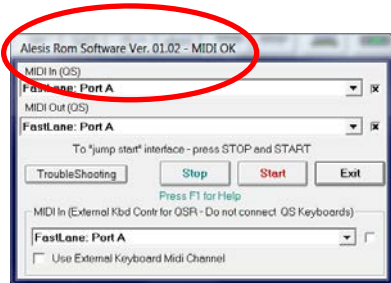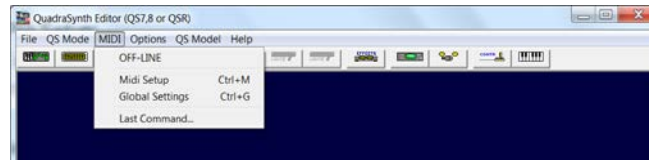3. Launch QS Edit Pro and navigate to the MIDI -> MIDI Setup dialogue box.

Figure 3: MIDI Setup dialogue box

4. Verify that the MIDI input and output ports are set properly, especially if you have more than one MIDI interface available. If the MIDI interface is working, you will see the Alesis QSR software version at the top of the dialogue box.

> Note: It may be necessary to "Stop" and "Start" the MIDI interface. Refer to the QS Edit Pro software manual for more troubleshooting tips.

5. After establishing the MIDI connection, verify that the communication is really working.
   - Click the Program Mode button (the left-most button on the QS Edit Pro tool bar).

Figure 4: Program data display

- Watch the LCD display on the QSR and verify that it responds by displaying the message: **SENDING OUT MIDI DATA...**
- The QS Edit Pro window should now display the current program contents (the specific program shown does not matter, but the program name in QS Edit Pro--Titanium88 in this example--should match the program name on the QSR LCD display).

6. **Navigate to the MIDI -> Global settings window in QS Edit Pro, then set the following parameters:**

- General MIDI is OFF
- MIDI Out is OFF
- MIDI Program Select is set to 10 (or other channel you will use for program changes)
- Mix Group Channel is set to 10
- Channel is 10 (this must match the QSR channel on the LCD display when in Program Mode)
- Check the box that allows QS Edit Pro to manage the MIDI Program Select parameter.

Note: QS Edit Pro must be allowed to control the MIDI Program Select parameter.

This is because the QSR requires different settings, depending on whether it is being used in Program or Mix Mode.

When you use QS Edit Pro to change from Program Mode to Mix Mode, or back again, the QSR LCD display will show the Global Settings screen. If you look closely, you will see the different settings, depending on the current mode.

After changing to Program Mode, the display shows "MIDI prgS1:ON". After using QS Edit Pro to change to Mix Mode, the QSR LCD display shows "MIDI MixS1:CH^{10}". Do not be confused by this.
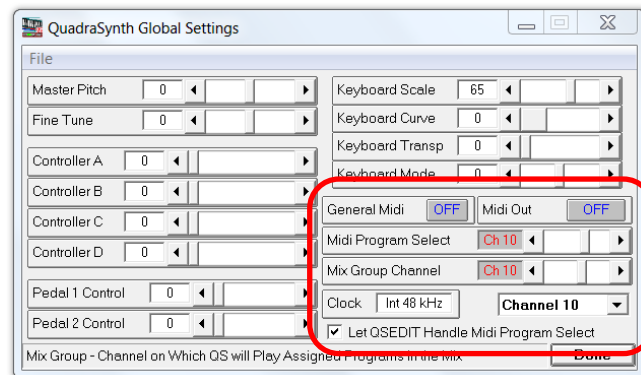
Figure 5: Global Settings window with recommended settings

Figure 6: Card Info dialogue box

Sound Bridge setup procedure

1. Install the Sound Bridge software
2. Open the application and navigate to Project -> Card Info

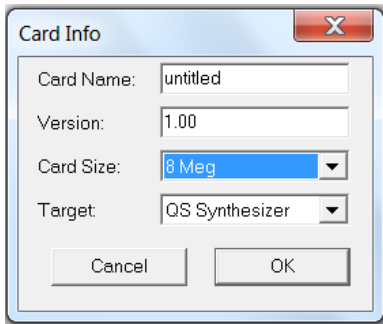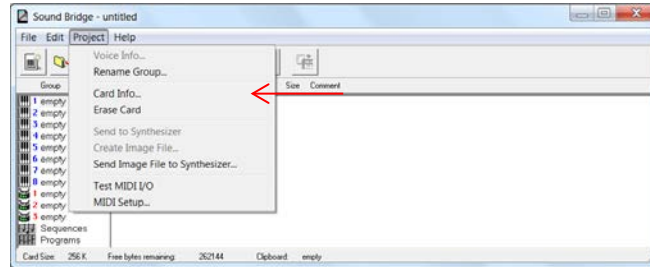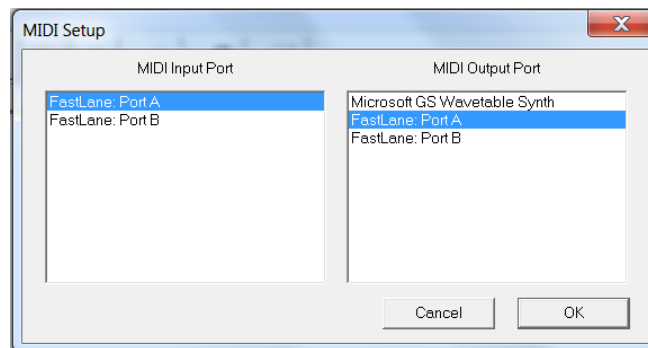3. Using the Card Info dialogue box configure the following settings:
   - Memory size of the card (8 MB flash cards are recommended)
   - Alesis instrument type (set to QS Synthesizer)
4. Close the Card Info box and navigate to Project-> MIDI Setup…

5. Set the MIDI Input and Output Ports to match your setup.
6. Click Project -> Test MIDI I/O. The software will indicate if the connection test is successful.
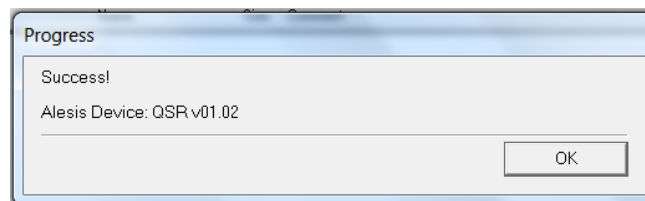
Your QSR MIDI interface should now work with both QS Edit Pro and Sound Bridge software. If you have a used QSR synthesizer you may want to re-initialize the User Bank data before continuing. While not required, it gives

you a known starting-point for making edits. You can back up the current contents of the User Bank by downloading the SYSEX file from the QSR. Then upload the factory default User Bank SYSEX file to the unit. Refer to the online QSR Drum Synthesizer Manual for instructions.

Hardware Installation and Testing

I recommend initial testing with the Alesis Control Pad connected directly to the QSR. The first section below describes the procedure for connection and testing of the Control Pad. I discuss testing with other hardware components in the following section.

Refer to the Control Pad reference manual for detailed operation instructions.

Figure 7: Alesis Control Pad

Figure 8: Control Pad keys

Alesis Control Pad connection and testing

1. Connect the MIDI OUT port of the Control Pad to the MIDI IN port on the QSR.
2. Turn on the QSR and the Control Pad.
3. The Control Pad should be in Kit mode (LED next to Kit should be lit). If not, press the FUNCTION key until the KIT LED is lit.
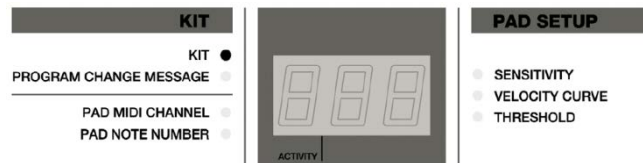
4. Use the up and down arrow keys to change kits (presets). Select a kit number for testing purposes. You can use any kit.

5. Tap the top-left pad and verify that the ACTIVITY LED blinks. This indicates that the pad is working and that the Control Pad is sending MIDI data.

6. Use the FUNCTION key to cycle through modes. Place the Control Pad in PAD MIDI CHANNEL mode.

7. Tap the top-left pad again to select it for editing. The current MIDI channel number will be displayed.

Figure 9: QSR front panel controls

8. Use the UP and DOWN arrow keys to select the MIDI channel. It must match the QSR MIDI channel setting so the QSR will respond to the messages. Assuming that you configured the QSR Global Settings as recommended, you should select MIDI channel 10.

9. Place the QSR in Program mode (press the PROG button on the front panel). Examine the LCD display and verify that MIDI channel 10 is shown on the last line. If another channel is shown you can change the QSR MIDI channel number to match.

10. Press the FUNCTION key on the Control Pad until the PAD NOTE NUMBER LED is lit. Tap the top-left pad again. The current note number will be displayed.

11. Use the UP and DOWN arrow keys to set the note number to 38 (corresponds to note D1). This is the note used for the snare drum sound in the General MIDI drum map.

12. Verify that the Control Pad is set to output no Program Change messages ("--" should be displayed). Use the UP and DOWN arrow keys to change the setting if necessary.

13. You may need to adjust sensitivity, threshold, or velocity curve settings. After adjusting all settings return the Control Pad to KIT mode using the FUNCTION key.

14. Using the QSR front panel controls, select the PRESET1 bank (bank select UP and DOWN buttons).

15. **Select QSR Program number 120 (using the VALUE wheel). The display should show "DM5 DRUMS". This is a built-in drum kit program that comes with the QSR.**

16. **Connect headphones to the QSR or connect the audio outputs to your monitor system. Slowly increase the QSR volume while tapping the top-left pad. You should hear a snare drum sound if the communication is working properly.**

If you have succeeded in controlling the QSR from the Alesis Control Pad you can begin exploring the QSR. You will become more familiar with the QSR and QS Edit Pro by examining the built-in sounds, programs, and mixes. This will prepare you for creating your own custom programs. For more information about expanding your system or preparing custom samples for use with the QSR, refer to the information provided at QSRdrums.com.