# YAMAHA S90

Getting Started
S90 and SQ01

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S90 and the SQ01 Demystified
The SQ01 is a powerful Windows audio/MIDI sequencer that can be used with your S90. To take advantage of this sequencer you will need to install both the **SQ01** and the **VOICE EDITOR for S90** on your computer. Please follow the installation guide in the TOOLS for S90 booklet that accompanies your unit.

MULTIPLE PORT USB INTERFACE
If you want to use the S90/SQ01 as a MIDI/Audio sequencer with Remote Control over the audio, you need to use the S90 as your USB MIDI interface. You can send tracks to it from the external sequencer software to address it via a Multiple PORT system.
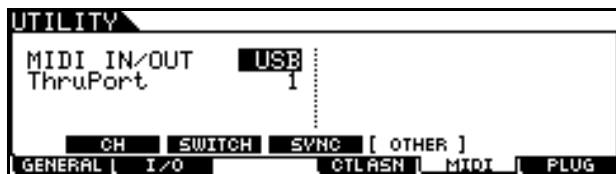
- Press UTILITY
- Press F5 MIDI
- Press SF4 OTHER
- Set the MIDI IN/OUT to USB

The 5-pin DIN connector on the back (the standard MIDI jack) is a single PORT system. USB, on the other hand, is a multiple PORT system. Each Port can have potentially 16 MIDI channels. PORT 1 (always) addresses the internal Parts of the S90. Where Port 2, for example, can be used to address any PLG150 series Boards that you may have installed in the unit. Port 3 will be to control the AUDIO MIXER.
- Press UTILITY
- Press F6 PLUG
- Press SF2 MIDI
- Set the PLG150 Boards to Port 2
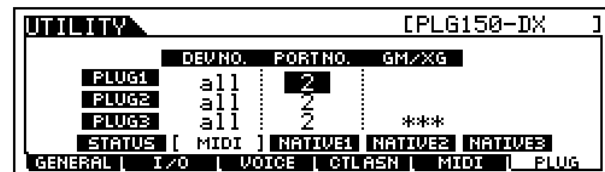
When you click on SETUP on the toolbar of the SQ01 you can select MIDI > Device you can set the Ports. This will establish communication between the S90 and the sequencer. Each MIDI track can be routed to the Yamaha USB OUT and assigned a specific MIDI channel. For example, you might have sixteen S90 PARTS, 01-16, on MIDI channel 1-16: via Yamaha USB OUT 0-1. You might have several PLG150-series boards -

they can be set to receive on MIDI channels 1, 2 and 3 with no conflict, if you have set your PLG boards to Yamaha USB OUT 0-2 MIDI channel 1-3. These tracks will be totally discreet because they are on separate PORTS.

We will be using three Ports. Highlight the USB IN and OUT devices as shown below. Port 1 will be internal S90 Parts; Port 2 for PLG150 Boards and Port 3 will be used for Remote Control functions for the Audio Mixer.
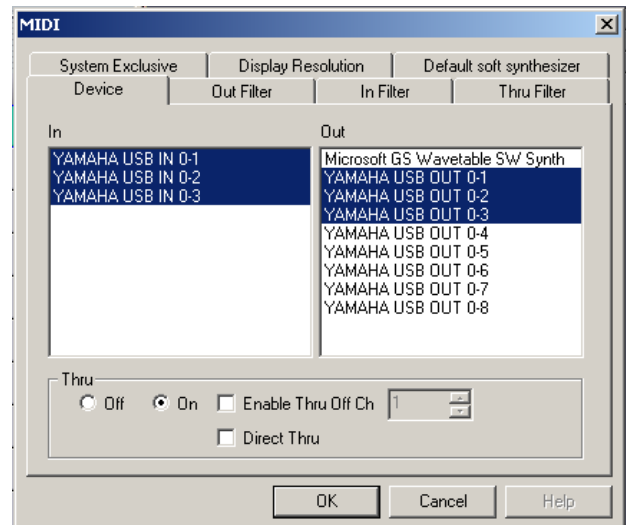
SELECTING SOUND FROM SQ01
You will be able to select Voices from any bank of the S90 using a search engine like this:
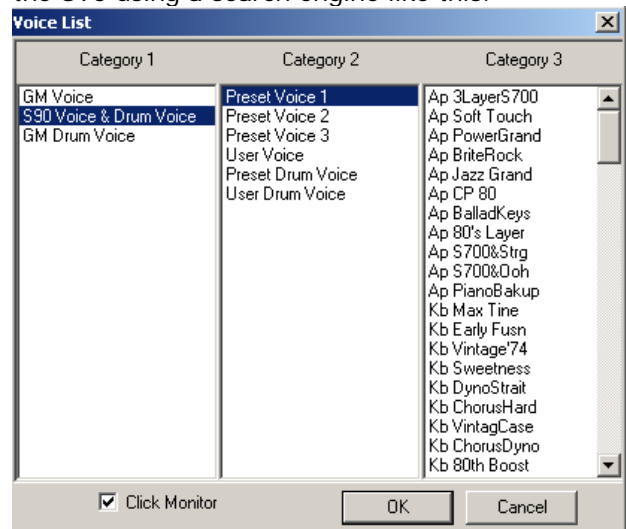

Here's how to set this up: In the far left CONTROL column of the Track View screen of SQ01 (on MIDI tracks) you will see the GENERATOR and VOICE boxes. Here you can select Voices for MIDI tracks by setting the "Generator" to **S90** and then

search for Voices via the "Voice" box. In order for the S90 to show up as an available SYNTHESIZER under the Generator function, you must have installed the VOICE EDITOR FOR S90 on your computer. This will load in the necessary items so that S90 appears on the available Tone Generator list. By clicking on the small chevron next to the word GENERATOR you will be able to select the S90 as the TONE GENERATOR (shown below):

On the main toolbar of the SQ01 click on SETUP...
- Select TONE GENERATOR....
- Connect the DEVICE/CH "Yamaha USB OUT 0-1: Ch1" through "Yamaha USB OUT 0-1: Ch16" in the left column with S90 as the TONE GENERATOR in the right column. (Shown here):
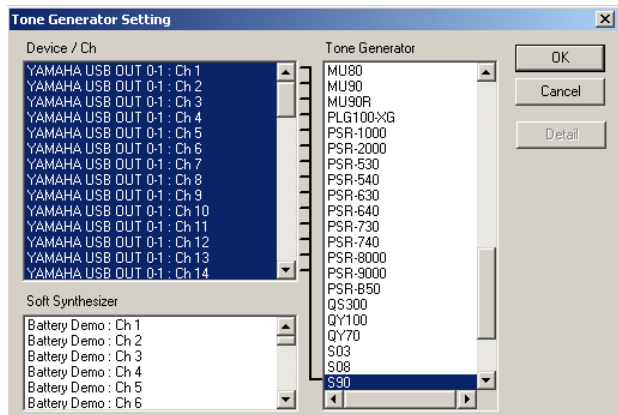
- Now open a **NEW** session by clicking on FILE> NEW on the toolbar of the SQ01.

This will setup a new song with S90 set as the Tone Generator for all MIDI tracks and you can click on the VOICE box and select your sounds using the software's Category Search. Of course, you can set the transmit PORT/CH of the Tracks individually, as necessary, if you are using more than one synthesizer in your setup.
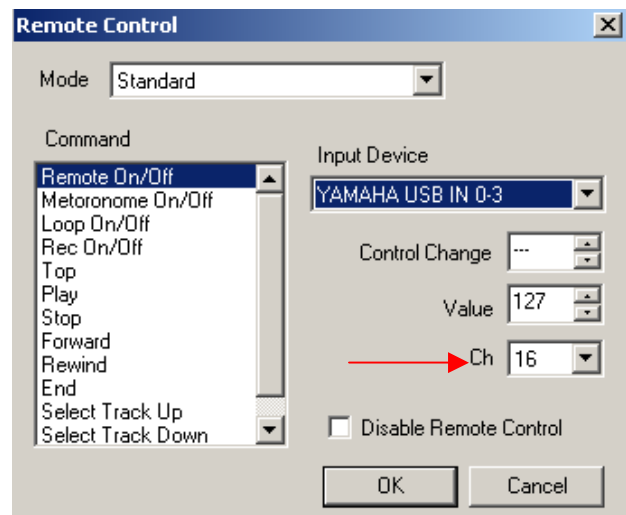
REMOTE CONTROL
In order to get the S90 Remote Control function to work, Port 3 is designated as the communication PORT. Port 1 is always the internal Parts; Port 2 could be for your PLG boards (as explained earlier) and Port 3...is selected for communication with the REMOTE CONTROL functions for the AUDIO MIXER.

On your S90:
- Press UTILITY
- Press F4 CTL ASN (Control Assign)
- Press SF4 REMOTE
- Set this to **SQ01**
- Press ENTER
- Press SEQ PLAY
- Press MIX to set the S90 in multi-timbral/multi-MIDI channel mode.
- Press the REMOTE CONTROL button on the far right front panel to activate Remote functions

In SQ01 under <u>S</u>ETUP on the toolbar
- Click REMOTE CONTROL...
If you have SQ01 version 1 it will allow you to set the MIDI communication CHANNEL, and <u>INPUT</u> DEVICE.
- Set the Channel to **16,** and the INPUT DEVICE to **YAMAHA USB 0-3** (if you have a different version: select STANDARD as the MODE, then set Channel to **16**, **USB 0-3** as the IN Device).


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MIDI Channel 16 is used as the communication channel for all AUDIO MIXER communication. This is a very important step. You will now be able to use all the Remote Control functions, including the START/STOP function. For details on what is available please refer to the S90 Owner's Manual page 58-59. The Remote Control functions are principally used for controlling the AUDIO tracks in the SQ01 – using the front panel sliders and buttons to control the audio tracks.

Audio Mixer: Quick Launch [SHIFT] + [7]

On the Audio Mixer select <u>Setup</u>; click on Remote Control; The Audio Mixer Remote Control will communicate via the YAMAHA USB IN 0-3 as shown below. In this example there are eight audio tracks selected under COMMAND.

- Click OK.
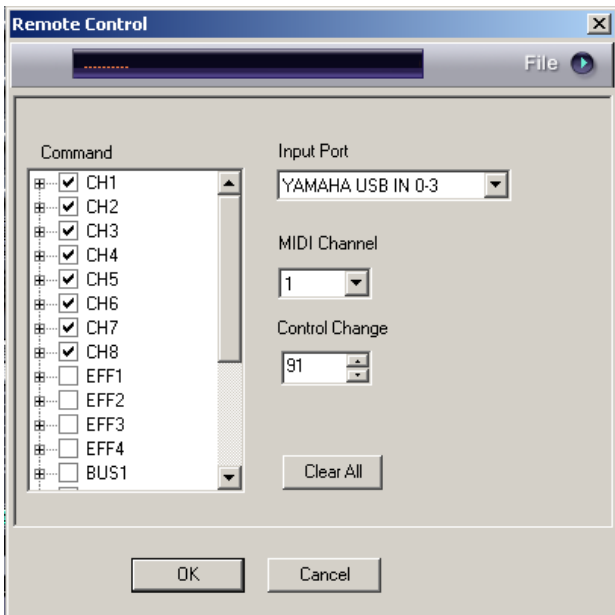
AUDIO AUTOMATION
The audio mixer automation icons appear on the toolbar and under the SETUP menu. When you select **WRITE AUTOMATION** the SQ01 will automatically create the necessary track to document your moves: Fader, Pan position, Mute status, Solo status, and Effect send levels. It is not necessary to create a track to record the Audio Mixer – the sequencer will allow you to overlay your automation – it will do the housekeeping and put it into a folder on the main Track View screen (typically you will find it at the bottom of the list of tracks - in a track with a suitcase icon in the track number column). If you need to delete or change this data you can open the suitcase by clicking on it and then double click on the track to view and edit its data.
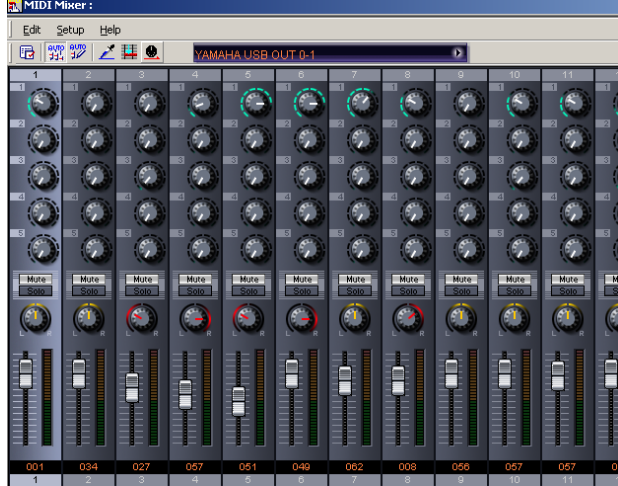
Built-in Effects
There are built-in Effects that can be applied to the audio tracks. Please see the ON LINE Manual for details on what is available and how to assign them to an audio track.
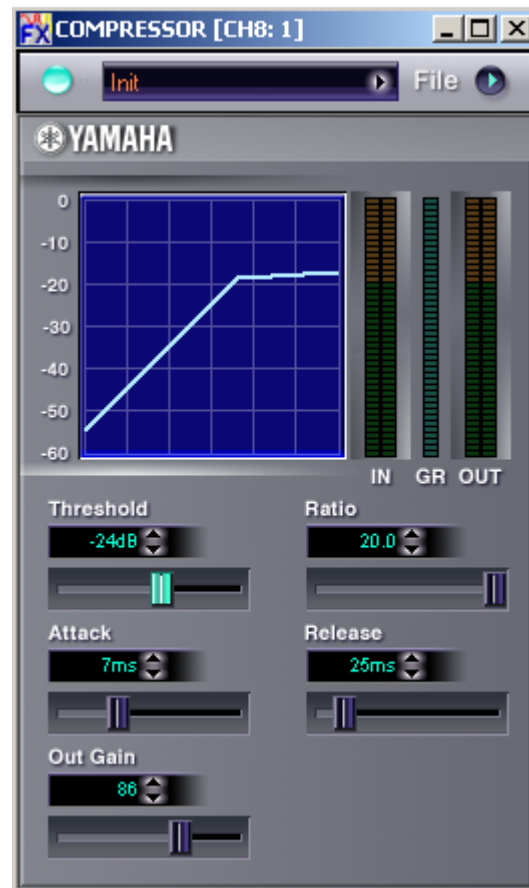

The effects can be applied to any audio track as necessary.

MIDI Mixer: Quick Launch [SHIFT] + [6]

The MIDI MIXER is available for creating automated MIDI mixes within the sequencer. You can use it to write data into SQ01 tracks. You can "READ AUTOMATION" and "WRITE AUTOMATION": READ *from*/ WRITE *to* a sequencer track to control the channel levels, control effect Send levels, of your MIDI tracks. Snapshots of settings can be inserted into the track data. When recording MIDI track AUTOMATION you will be addressing the S90 internal PARTS so you will want to use USB OUT 0-1. The MIDI control data must, like all MIDI data be recorded to a track of the sequencer. Select a track that is set to OUT 0-1 but set the MIDI channel for this (automation) track to ALL. This will allow data from any fader icon or Effect knob icon to be recorded to this track.
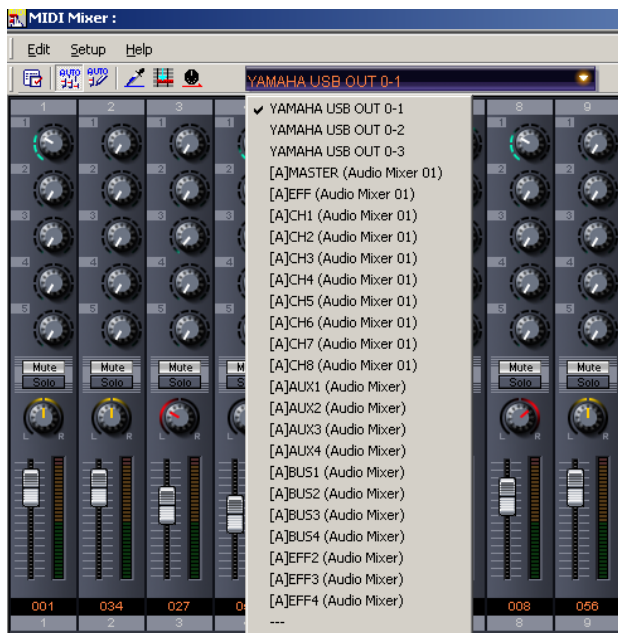
Here is a step-by-step:

- Set the MIDI OUT on the toolbar of the MIDI Mixer to YAMAHA USB OUT 0-1
- Make sure both of the AUTO icons are selected **READ** and **WRITE** (you can view the selection under the SETUP menu – a check appears next to READ and WRITE AUTOMATION
- Set the MIDI track to USB OUT 0-1 and the MIDI channel to **ALL** (see diagram below)
- Set the TRACK to RECORD READY "R"
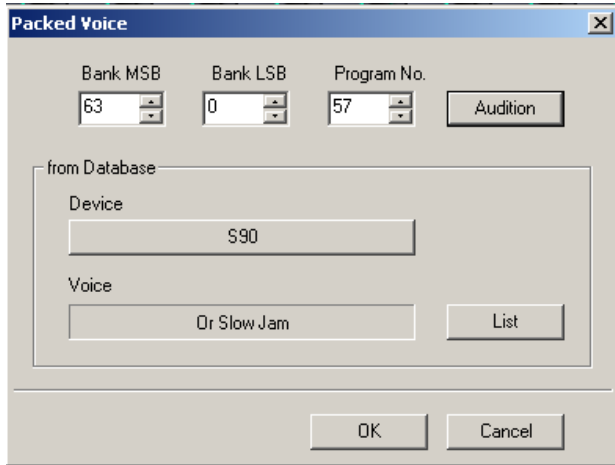- Click the RED Record dot on the main transport and press START.

The MIDI MIXER is addressing the internal Parts of the S90 and thus is communicated with via OUT 0-1, only.[1] This means it is possible to control what happens on the S90 and to the track automation of the SQ01 **from** this MIDI Mixer.

For example, another good use for the MIDI Mixer is selection of Voices. Click on the three-digit number above the Track number at the bottom of the channel fader. This will open a dialog box that will allow you to search for S90 Voices and send out an audition note.

- In the dialog box shown below, you see that you can select a Voice via the "LIST" and it will show you the MSB/LSB Bank Select and Program Change Number.
- If you are using another SQ01 supported instrument you can select it by selecting "DEVICE" from the DATABASE.

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[1] There is no USB IN for MIDI MIXER therefore the direction of information is **from** the software **to** the synth or **to** a track, only.

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Packed Voice

Bank MSB: `63` Bank LSB: `0` Program No.: `57` [Audition]

from Database

Device: `S90`

Voice: `Or Slow Jam` [List]

[OK] [Cancel]

It will let you view a LIST similar to the one that the GENERATOR / VOICE routine did. If you select your VOICE with the MIDI MIXER, when you have completed selection you can click on the INSERT PARAMETER icon on the toolbar and the SQ01 will automatically create the setup data and insert it into the appropriate tracks.

Saving data
Saving data in the SQ01 should be done in one of the native formats. The .yws format will save your entire session but not the audio and there is a second .yws format (**with** Samples), which will save your session and audio included in it.
• Click SAVE AS… and select the appropriate type file for your purpose

If you are doing a non-audio session, and wish to send the file to a SmartMedia card for play in real time from the S90's playback sequencer:
• Save your data as a SMF TYPE 0
• Send your MIDI MIXER settings to the S90 by clicking on the TRANSMIT PARAMETERS icon (a MIDI jack icon). Then you can save the MIX to an S90 TEMPLATE
• From the MIX area press F5 TEMPLATE
• Name one of the 50 MIX TEMPLATES and press SF5 PUT to place (or Put) the current MIX to the location.
• When you transfer your SMF to SmartMedia card and place it in the S90, you can create a play list (called a CHAIN) – each Chain can recall a MIX and then a SMF – you can even program in stops;

Manually retrieving a Template is called "GET" and is accessed from F5 Template/ SF4 Get.

You can use the Chain function to automate recall of mix setups from the FLASH ROM of the S90 and then play SMF from the SmartMedia card. This requires that you create several TEMPLATES (one for each Song setup) – These will be stored in the S90's Flash ROM memory. Name your MIX Templates appropriately, then set up a Chain (F1) that has steps that look something like this:

01 **mix01**: Feelings (recalls the Template)
02 **SMF**: Feelings (plays the song)
03 **mix02**: My Girl (recalls the Template)
04 **SMF**: My Girl (plays the song)
05 **mix03**: SanJose? (recalls the Template)
06 **SMF**: SanJose? (plays the song)
07 **Stop** (program a stop for an announcement)
08 **mix04**: Alfie (recalls the Template)
09 **SMF**: Alfie (plays the song)

etc., etc. There are 50 TEMPLATES and 100 STEPS available in a CHAIN. When you push PLAY, the Mix will be recalled from the internal FLASH ROM Mix Template and then the Chain will play the NEXT SMF (song) directly from SmartMedia card. In other words, to recall mix01 for "Feelings", you start at the top of the list. It will instantly recall the MIX and go on to play the song "Feelings". The Chain will advance automatically and wait after playing "SanJose?" Step 07 is a programmed stop. When you push PLAY again it will continue from the current position and recall the mix04 "Alfie" from the internal Template setup, and then immediately play the song file from the SmartMedia card.

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