STUDIOLOGIC
MASTERKEYBOARD

SL-1100

INDEX *English* PAGE

QUICK
REFERENCE

For basic operation please follow the guidelines below. The SL-1100 includes four demonstration presets which may be used after the instrument is installed into your MIDI system.

1) Connect voltage adapter into a power outlet (make sure voltage specification on power adapter matches your line voltage). Connect adapter cable to SL-1100 power jack.

2) Connect MIDI cables before switching on any MIDI devices. To use the demonstration presets, connect a sound module to either of the two MIDI outputs. The sound module must be multi-timbral and capable of responding to MIDI data on channels one through four.

4) Apply power to the SL-1100, then apply power to all other MIDI devices in the system.

To change SL-1100 presets, make sure that the unit is in Perform Mode (there should be no blinking lights on the front panel). To change the preset, press any of the four PRESET switches. There are 8 banks of four presets; to change to a different bank, press the left or right arrow switches until the desired bank number is displayed.

The Master Volume Slider will adjust the volume on all active zones. Unless programmed otherwise, the optional pedal controller will also adjust the master volume. The left and right wheels will control pitch and modulation, unless they have been disabled by the active Studio-1100 preset.

MIDI channels may be switched on and off using the four ZONE switches.

To edit a preset, enter Edit Mode by pressing and holding one of the four ZONE switches. Press the FUNCTION switch which is labeled with the desired parameter. Release both switches (the ZONE switch will blink). Pressing any FUNCTION switch repeatedly will cycle through the three parameters available on the switch. Change the current value with the CSL/DATA slider. Press the blinking ZONE switch to exit Edit Mode.

DEMONSTRATION
PRESETS

The SL-1100 comes from the factory with four demonstration presets in locations 11 through 14. The demonstration presets are intended for use with a multi-timbral sound module. The module must be able to respond to MIDI data on channels one through four.

The demonstration presets illustrate several of the most useful SL-1100 functions, and are summarized below. When the demonstration presets are selected with the PRESET switches, the sound modules should change programs automatically. The actual program number on each sound module may not match the number of the preset selected on the SL-1100. These program numbers may be easily changed; see the operation guide sections on Edit Mode and the PROGRAM function.

DEMONSTRATION PRESET 11: This is a very basic preset with one zone (MIDI channel 1) active across the entire keyboard. The Master Volume control may be used to adjust the level of the sound.

DEMONSTRATION PRESET 12: MIDI output channels one through four are active and receiving note information from the keyboard. The ZONE switches may be used to turn off selected channels to hear different combinations of the sounds. The Master Volume slider on the front panel may be used to adjust the volume level of all channels simultaneously.

DEMONSTRATION PRESET 13: All four MIDI channels are active, but the keyboard is divided into four zones, with a different channel active in each zone (refer to the ZONE function for more information).

DEMONSTRATION PRESET 14: This preset demonstrates a velocity cross-fade. For notes played softly on the keyboard, only MIDI channel 1 should play at maximum volume. As the notes are struck more forcefully, this sound will become softer, and the sound on MIDI channel 2 will become louder.

SL-1100 SPECIFICATIONS

- Full-size 88-key weighted action with velocity sensitivity and aftertouch.
- Three digit LED display for preset number and parameter editing.
- Thirty-two internal presets; internal programs may be saved and loaded via MIDI system exclusive.
- MIDI input is merged into the MIDI output.
- Two parallel MIDI output jacks.
- Full-size Pitch and Modulation wheels. Wheels may be enabled and disabled for each keyboard zone.
- Programmable control slider. The slider can be programmed to issued and MIDI control change message.
- Input for optional pedal controller to control volume or other functions.
- Four programmable zones may be defined over any region of the keyboard.
- Presets may be changed with an external MIDI device.
- Independent MIDI program change messages issued by each zone.
- Zones programmable to transmit on any MIDI channel.
- Volume initialization messages for each zone.
- Velocity sensitivity control for each zone with positive and negative response.
- Aftertouch may be enabled or disabled for each zone under preset control.
- Programmable transpose for each keyboard zone.
- Power Requirements: 9VDC at 200mA (center contact positive).

BASIC INFORMATION

The SL-1100 serves as the master controller for any group of MIDI instruments and accessories. A MIDI input is provided which allows flexibility in multi-keyboard setups. Data from this input is merged into the two MIDI outputs.

Four programmable keyboard zones provided fast and easy control over essential functions. A large three digit LED displays the current preset as well as parameter data. All programmable parameters may be accessed quickly via the four ZONE switches and the four FUNCTION switches.

The SL-1100 will command up to sixteen different MIDI channels, with keyboard control of four different channels simultaneously. The two parallel MIDI outputs are a convenient way to hook up several MIDI devices without the use of MIDI splitters or routers.

BACK PANEL CONNECTIONS

MIDI INPUT: Messages received by this input are merged with the data from the keyboard zones and sent to the two parallel MIDI outputs. These messages may include any of the following types:

|			
Notes	Program Change	Pitch	All Controllers
Mono Pressure	Poly Pressure	Sys-ex (foreign)	Midi Time Code
Song Position	Song Select	Tune Request	MIDI Clock
Star	Continue	Stop	System Reset

The thirty-two SL-11-00 internal presets may be loaded from an external computer or storage device. The output of the storage device must be connected to the MIDI input of the SL-1100. If the SL-1100 receives the correct system-exclusive identifier, the preset data will be loaded into memory. If the identifier does not match, the system-exclusive data will be passed to the SL-1100 outputs.

MIDI OUTPUTS: Connect sound modules and other MIDI devices to either of the two parallel MIDI outputs (the data is identical on both outputs). To connect more than two devices, use the MIDI through on each device to connect to the MIDI input of another device. The SL-1100 will access up to sixteen separate MIDI channels under preset control. Sound modules with the same channel settings will be treated as a single sound source by the SL-1100.

The thirty-two internal presets may be saved to an external computer or storage device. The MIDI output of the SL-1100 must be connected to the MIDI input of the storage device. Consult the section on Program Save and Load for additional information.   ;.

CONTROL VOLTAGE INPUTS: One input is provided for an external analog controller. An optional control pedal is available from your dealer, or any DC control voltage source may be used. The input voltage range is 0 to 5 volts DC, which corresponds to a MIDI control range of 0 to 7F hex. The control pedal is most commonly used to control master volume, but it may be programmed to issue any MIDI control change message,   i

MIDI SYSTEM CONFIGURATION
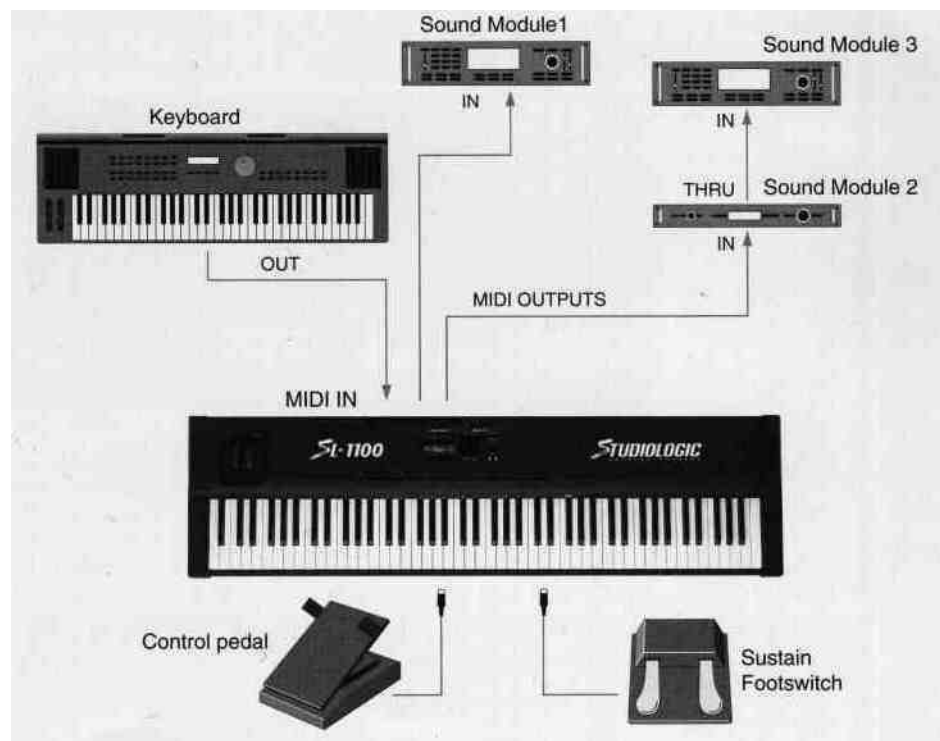
The illustration shows a typical MIDI setup for live performance. The SL-1100 is driving three sound modules. In this example, Sound Module 1 is multi-umbral, and will respond to MIDI messages on channels one through 8.
Sound Module 2 is two-part multi-timbral, and is set to respond to MIDI channels nine and ten. Sound module 3 is not multi-timbral,and is programmed to receive on MIDI channel 11. With this setup, every channel of the sound modules may be accessed independently by the SL-1100 (there are no overlapping MIDI channels).

ZONES

The SL-1100 is designed with four independent keyboard zones. Each zone is intended to control a different sound by transmitting messages on a unique MIDI channel. Each zone may be active over the entire keyboard, or limited to any desired set of (adjacent) keys. The diagram below shows an example of how different sounds in one preset might be "mapped" across the keyboard.

Notice that the relationship between zone number and MIDI channel number is arbitrary; the channel associated with each zone may be different in each SL-1100 preset. To simplify the creation of presets it may be helpful to use consistent MIDI channels numbers for the zones all presets.
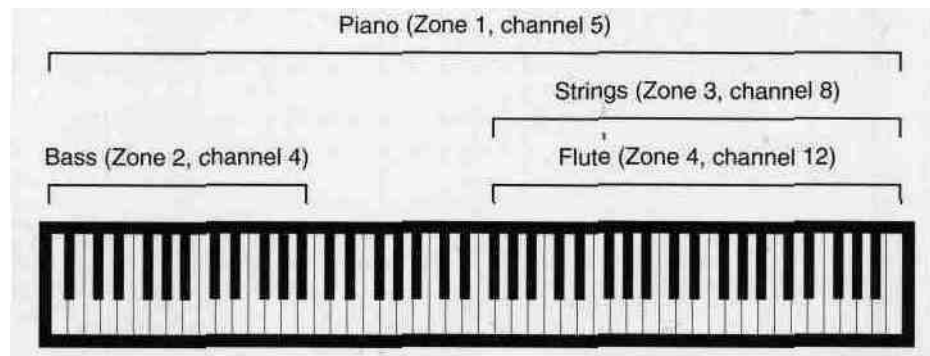
OPERATION

The SL-1100 has'two modes of operation, Perform Mode and Edit Mode, Some of the switches and sliders have different functions depending on the mode (refer to the front panel illustration).
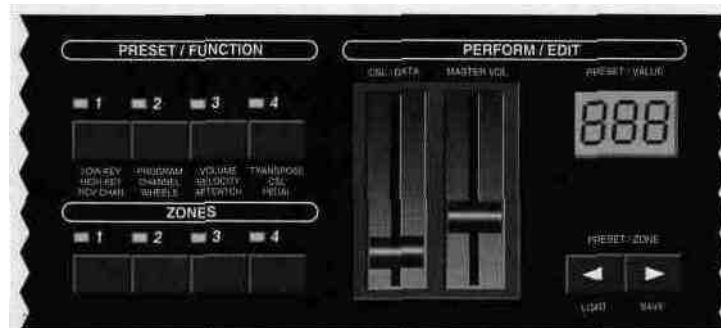
PERFORM MODE

During live performance or recording sessions, the SL-1100 will usually be in Perform Mode. In this mode, the four upper left switches (PRESET / FUNCTION) are used to select one of the thirty two presets. Press any of these switches to change the current preset. There are 8 banks of four presets; to change to a different bank, press the left or right arrow switches (PRESET) until the desired bank number is displayed.

The four ZONE switches are used to enable or disable certain sounds. For example, a piano sound may be active on Zone 1 during part of a musical performance. At some point during the song, the Piano sound is switched off, and a solo instrument sound is switched on using Zone switch 2. The same result could be achieved by switching to a different SL-1100 preset, but it is more efficient to use the zone switches for basic sound switching.

The left control slider on the front panel acts as a general purpose controller when the unit is in Perform Mode. The MIDI controller number for the slider is stored as part of the preset data.

**EDIT
MODE**

To create or change a SL-1100 preset, it is necessary to enter Edit Mode. Most of the parameters in the preset are associated with one of the four keyboard zones. The procedure for changing . any of these zone parameters is as follows:

1) Enter Edit Mode by pressing and holding one of the four ZONE switches.
2) Press the FUNCTION switch which is labeled with the desired parameter.
3) Release both switches. The ZONE switch will blink to indicate that its parameters are
  - editable. Pressing any FUNCTION switch repeatedly will cycle through the three parameters available on the switch.   ^
4) Change the current value with the CSL/DATA slider.
5) Press the blinking ZONE switch to exit Edit Mode.

There is no Store function on the SL-1100; any parameter that was changed in Edit Mode is automatically updated in internal memory. Note that the Zone switches must be in the desired state before entering edit mode. These are the settings that will be stored into the preset upon returning to Perform Mode. To change the stored Zone switch settings for a preset, set the Zones as desired, and enter Edit Mode using any combination of a Zone switch and a Function switch. Press the blinking switch to exit Edit Mode, and the new Zone settings will be saved.

**ZONE
FUIMCTIOMES**

Each keyboard zone on the SL-1100 has several parameters which must be set to access the desired sound from the sound module. The following sections describe the purpose of each. zone function.   <

**LOW KEY
HIGH KEY**

These functions are used to set the range of active keys for the zone. To set the lowest active key, press and hold the desired ZONE switch. Press the FUNCTION 1 switch, then release both switches. The Zone switch will blink, and the LED display indicates the lowest active key. Use the DATA slider to set a new value. To set the highest active key, press FUNCTION switch 1 again. The LED display now will indicate the highest active key which may be changed with the DATA slider. Press the blinking switch to exit the edit mode.

For convenience, an alternate programming method is available which is faster than setting the key limits with the slider. First press and hold the ZONE switch to be edited. Press the FUNCTION 1 switch. Release both switches. The ZONE switch will now blink, and the LED will display the lowest active key. Play two keys on the keyboard (the order does not matter) to program the new low and high keys. The Edit mode will terminate automatically.

PROGRAM

The Program function is used to issue a MIDI program change command at the instant a SL-1100 preset is selected. The Program number is set independently for each of the four keyboard zones. To set the MIDI program, press and hold the desired ZONE switch, and press the FUNCTION 2 switch. Release both switches. The ZONE switch will blink. The display will indicate the MIDI program (1 through 128). Change the setting with the DATA slider (the program change commands will be issued as the slider is moved). If no program change is desired select the dash (-). Press either blinking switch to exit the edit mode.
For convenience a special Program Change function is available from Perform Mode. Press and hold a ZONE switch, then simply enter the program number (1 through 128) on the labeled black keys (the digits will appear on the display as they are entered). When the ZONE switch is released, the entered program number will be issued on the channel corresponding to the zone. The current MIDI Bank number may be selected in a similar fashion. Press and hold a ZONE switch, then momentarily press the black BANK key. Enter the desired bank on the numbered black keys. A Bank Select message will be issued when the ZONE switch is released.

VOLUME

When multiple instruments are played simultaneously from the keyboard ("layered"), it is essential to balance the relative volumes of each sound. The VOLUME function specifies an initial volume level for each of the four keyboard zones.

To set the volume, press and hold the desired ZONE switch. Press the FUNCTION 3 switch, then release both switches. The ZONE switch' will blink. Use the DATA slider to adjust the value as indicated on the LED display. If no initial volume message is desired, adjust the slider until a dash (-) appears on the display. Press the blinking switch to exit edit mode.

The overall volume level for all four zones as a group may be adjusted with the Master Volume slider. This slider is linked with the four initial volume settings for each zone, so that as the master volume is changed the relative volume among the four zones is maintained.

TRANSPOSE

It is often desirable to shift the pitch of a sound my some interval up or down. This is especially useful in layered presets. To set the transpose interval, press and hold the desired ZONE switch, and press the FUNCTION 4 switch. Release both switches. The display will indicate the current value in semitones (the total transpose range is plus and minus two octaves). Adjust the value with the DATA slider. Press the blinking switch to exit edit mode.

CHANNEL

Each keyboard zone can be programmed to transmit on any one of the sixteen MIDI channels. To set the channel, press and hold the desired ZONE switch, and press the FUNCTION 2 switch twice. Release both switches. The Zone switch will blink. The display will now indicate the MIDI CHANNEL for the zone, which may be changed with the slider. Press the blinking switch to exit the edit mode.
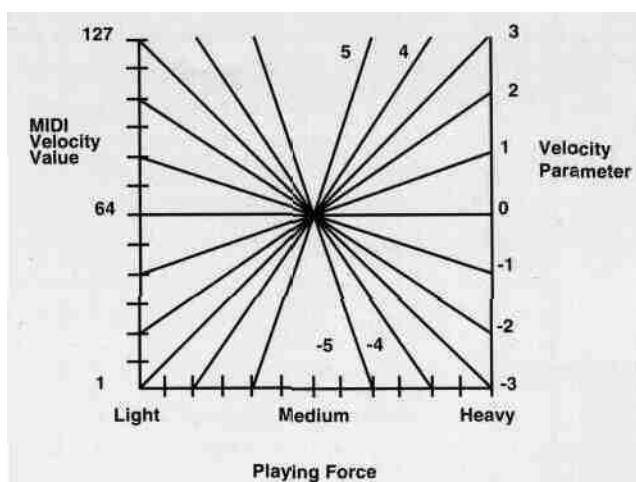
VELOCITY

Most sound modules can produce a wide range of instrument sounds, and each sound requires an appropriate keyboard playing technique. The Velocity parameter of the SL-1100 is used to adjust the keyboard dynamic sensitivity for the best response or "feel" for a given instrument sound. To adjust the keyboard velocity sensitivity, press and hold the desired ZONE switch. Press the FUNCTION 3 switch twice, then release both switches. The ZONE switch will blink. Use the DATA slider to adjust the velocity sensitivity from -5 through 5 (select 3 for normal positive velocity). Press the blinking switch to exit edit mode.
The chart below indicates the relationship between keyboard playing force and MIDI velocity values for various settings of the Velocity parameter.

The chart shows that for a setting of zero, any key that is depressed will issue a MIDI velocity value of 64, regardless of the actual key velocity. As the parameter is moved toward larger positive values, the range of MIDI velocities is increased. At a setting of positive 3, all MIDI output values may be transmitted depending on actual key velocity. At the maximum parameter value of positive 5, it is very easy to issue MIDI note-on velocities anywhere between 1 and 127. The negative settings for this parameter may be used to create special "cross-fade" effects. Create a preset with two active zones, and set one zone for a negative velocity sensitivity. As the keys are played with increasing force, the sound from the first zone will decrease in intensity, while the sound from the second zone will increase (Demonstration Preset 4 is configured for a velocity cross-fade).

CSL
Control Slider

The left slider on the SL-1100 front panel can be programmed to issue any MIDI control change message. To set the controller number, press and hold a ZONE switch. Press the FUNCTION 4 switch twice, then release both switches. Use the DATA slider to set the controller number (if no controller is desired, adjust the slider to display a dash"-"). To eat edit mode, press the blinking switch.'

WHEELS

The two control wheels on the Studio-1100 are dedicated to PITCH and MOD functions.   The wheels may be switched on and off for each zone (both will be enabled or both will be disabled per zone). First press and hold the specific ZONE switch. Press the FUNCTION 2 switch three times, then release both switches. The LED display will indicate On or OFF. Use the DATA slider to change the setting. To exit the edit mode, press the blinking switch.'

AFTERTOUCH

The SL-1100 will transmit aftertouch, which allows expressive musical control during the course of a note. The aftertouch value is determined by the total key pressure on all depressed keys ("channel pressure").   .
To enable or disable the aftertouch, press and hold a desired zone switch. Press the FUNCTION 3 switch three times. Adjust the data slider to change the display to ON or OFF. Press the blinking switch to exit edit mode.
Note: Not all sound modules respond to MIDI aftertouch (channel pressure) messages.

PEDAL

The SL-1100 is equipped with a voltage input for external analog controllers such as a voltage pedal (available from your Master Controller Keyboard dealer). The pedal input is set to adjust the master volume (same as front panel slider) but may be reprogrammed to issue any MIDI control change message.
To set the controller number, press and hold a ZONE switch. Press FUNCTION 4 switch 3 times. Release both switches. Use the DATA slider to set the controller number (if no controller is desired, adjust the slider to display a dash "-"). To exit edit mode, press the blinking ZONE switch.   The default setting for this input is controller #7. This value is not issued directly as the input changes, but is scaled by the initial volume setting for the zone. All other controller-numbers will cover the range from 0 to 127 as the pedal is moved.

The Sustain input on the SL-1100 back panel may be used with an external footswitch. A MIDI control change message (#64) will be issued on each zone when the footswitch is actuated. To enable or disable the sustain messages, press and hold a desired zone switch. Press and hold the sustain pedal, and then press the Function 4 switch 3 times. Adjust the data slider to change the display to ON or OFF. Press the blinking zone switch to exit edit mode.

MISC MISCELLANEOUS

All of the parameters discussed above were associated with the four keyboard zones. There are a few other functions which affect the operation of the instrument as a whole.

RECEIVE CHANNEL

The active SL-1100 preset may be changed by an external MIDI device connected to the MIDI input on the back panel. The SL-1100 will respond to program change commands on the channel specified with the RCV CHANNEL function.

To set the MIDI receive channel, press and hold any zone switch, then press the FUNCTION 1 switch three times. Release both switches. The display will indicate the current receive channel which may be changed with the slider. To disable receipt of program changes, move the slider to select the-dash"-". Press the blinking FUNCTION switch to exit the edit mode.

PROGRAM SAVE AND LOAD

The SL-1100 internal memory will retain data for thirty two presets. This data may be saved into an external computer or storage device using the SAVE function.

Connect one of the SL-1100 MIDI outputs to the MIDI input of the storage device."Press and hold any zone switch. To send sys-ex memory data, press the SAVE switch. After sys-ex has been transmitted, the unit will return to perform mode.

To load the SL-1100 memory from an external device, connect the MIDI output of the device to the MIDI input of the SL-1100. Press and hold any zone switch. To enable receipt of sys- ex data, press the LOAD switch (the display will display "L"). The SL-1100 will remain in this mode, waiting to receive sys-ex data.

Activate the transmission of sys-ex data on the storage device. After the system-exclusive data has been received, the SL-1100 will return to Perform Mode. To terminate load mode manually, press the blinking switch.

PRESET INITIALIZATION

The SL-1100 is shipped from the factory with four demonstration presets in locations 11 through 14. After these locations have been changed by the user, it is possible to restore the four demo presets as follows:

1.Switch off power to the SL-1100.
2.Press and hold the Load and Save switches.
3.Switch on SL-1100 power.
illkommen auf der Welt von Studiologic ——. Die Studiologic SL-1100 ist ein kompletter, vielseitiger und schnell benutzbarer Midi Controller. Er kann entweder fur Live-Darstellungen als auch fur Studioarbeiten verwendet werden.