

When all the parameters are set up, press the **SEND** button to initiate transmission. Once the handshake protocol has been successfully initiated between the two devices, data transfer will take place. A new soft key, **ABORT**, will appear. Press this if you want to terminate the transmission prematurely.

There is no receive key, as reception of bulk data will automatically take place once a remote device initiates the dump protocol.

SCSI

On this page you can enable or disable MIDI bulk data transmission along a SCSI bus, rather than the MIDI connections, and set the SCSI IDs for both the S1100 and the other SCSI device. The other SCSI device can be another of the S1100 series or a personal computer (equipped with the appropriate software). Values for SCSI device IDs can be from 0 to 7. The two values must be different, otherwise no communication will take place.

SCSI COMMUNICATION						
MIDI via SCSI: OFF						
S1100 SCSI ID: 6						
remote SCSI ID: 6						
CHAN	FILT	PPMs	RCUE	TRAN	EXCL	SCSI <input type="text"/>

4 Disk operations

The **DISK** button allows you to perform a number of disk-related operations, over and above those which you can perform from the SELECT PROG mode.

Loading from disk

The S1100 allows you to load samples, programs, programs together with their associated samples, drum settings and operating systems from disk. This flexibility helps you pick and choose the sounds you need for a session or performance with the minimum of trouble.

LOAD FROM DISK: FLOPPYL		vol:NOT	NAMED
free memory: 94%	TEST PROGRAM	P	0%
type of load:-	DARKPARANOIA	P	0%
ENTIRE VOLUME	KEIKOS	-L S	3%
(GO to load or CLR	KEIKOS	-R S	3%
to clear mem/load)	SINE	S	0%
LOAD	SAVE	REN	DEL
HOSK	FORM	CLR	GO

After inserting a disk with data on it, press the **DISK** button (if you haven't inserted a disk, the screen will display "!! NO DISK !!"). A diskette can only contain one volume, and may be formatted as high or low density. If the density (high or low) is different from the density of the last disk inserted, the S1100 will try an alternative density. The density of the disk currently inserted will be displayed as "FLOPPYH" or "FLOPPYL" at the top of the screen.

If you have a hard disk fitted, you can select "HARD" at the top of the screen. Hard disks can be divided into partitions (see the section on formatting — "FORM" for full details of how partitions are arranged), and the partition letter can be selected following the selection of "HARD". Note that there will be a slight delay after choosing a partition, while the partition is selected and read by the S1100. A partition on a hard disk can contain up to 128 volumes, and you can select the volume from which you want to load data in the next parameter field.

A list of all files (programs, samples and drum settings) will be displayed on the right side of the page. Programs have a "P" beside their name, samples have an "S", and drum input settings have a "D". Beside the type of file on the disk, there is also a percentage number, which gives the amount of space that this file will take when loaded into memory.

If you insert a diskette containing S900 samples and programs, the 12-bit S900 samples will have a "9" beside them, and the S900 programs will have a "*". The bottom line of the S1100 display will also inform you that the diskette is a diskette for the S900, which is to be used for reading only.

If you cannot see the file you want to load, move the cursor to the list of files and scroll up and down to display all the files on the disk. If the file you want is not on the disk, insert another disk and press LOAD to re-read the disk. If you have a hard disk fitted, then you can choose another volume to read. When you know that you have the right disk or volume, you can proceed.

type of load:

The parameter under the "type of load:-" message can take a number of values. These are described below. When you have selected the appropriate value, you can press **CLR** or **GO**. **CLR** will delete all programs and samples from memory, and then load the chosen file(s) from disk.

GO will try to load the chosen file(s) into memory without deleting anything first. It is possible that the chosen file(s) will occupy more memory space than is actually available, in which case the loading process will be halted. Any files which have been completely loaded into memory prior to the "out of memory" message will remain in memory, however.

Even if a file exists in memory with the same name as a file on disk, the disk file will still be loaded.

ENTIRE VOLUME

This will load the entire contents of the disk into the memory (programs, samples, drum settings, cue lists, effects file and operating system).

ALL PROGS+SAMPLES

As the name suggests, all programs and samples on the disk will be loaded into memory. Any other files will not be loaded (drum settings, effects file, operating system, etc).

ALL PROGRAMS ONLY

Only programs (those files marked with a "P" in the display) will be loaded.

ALL SAMPLES

All samples (files marked with an "S" in the display) will be loaded.

CURSOR PROG+SAMPS

After selecting this parameter, move the cursor to a program file, and press **GO** or **CLR**. The selected program will be loaded, and then the S1100 will examine the program to see what samples are used by the program. These samples will then automatically be loaded.

CURSOR ITEM ONLY

After selecting this parameter, move the cursor to any file (program, sample, drum setting, cue list or effects file), and press **GO** or **CLR**. The highlighted file will then be loaded into memory.

OPERATING SYSTEM

If the disk contains an operating system, you can load the system from disk. Usually, however, if you follow our recommendation, you will have booted up the S1100 with the latest version of the operating system.

S900 samples and programs

No special command is provided for S900 samples. Simply select "ENTIRE VOLUME", "ALL PROGRAMS ONLY", "ALL SAMPLES", "CURSOR PROG+SAMPS" or "CURSOR ITEM ONLY" and proceed as above. The S1100 display will inform you when a sample for the S900 is being read, and after each S900 sample has been successfully read, an additional message, "unscrambling S900 sample" will appear, as the S1100 converts S900 to S1100 format (12-bit to 16-bit).

Auto-loading

If you turn on the S1100 with a diskette in the drive, the contents of the disk will be loaded into memory. If the disk contains a copy of the operating system, and this operating system is a higher version number than the ROM version, this will be loaded.

If a hard disk is fitted, and the operating system is loaded on the first volume, the operating system will be automatically loaded from this, if it is a higher version than the ROM version, and no diskette is in the drive at power-on.

We strongly recommend that you make a copy of any *Operating System* diskettes for your S1100 and always turn on the S1100 with the copy (not the original) inserted in the drive.

If you have not made a copy of the operating system, **DO SO NOW!**, following the instructions in the first section of this manual.

Further updates to the operating system may become available. We suggest that you keep in touch with your AKAI Professional dealer to find out when these updates are available and what benefits you will get from them.

Saving to disk

REMEMBER! When you turn off the S1100, all samples, programs and drum settings are lost. Save your work to disk if you want to keep it for another session.

By pressing the **SAVE** button from the main DISK page, you can save your edited programs and samples to disk. Make sure that you have enough unprotected formatted disks available before you press **SAVE**.

```

SAVE TO DISK : FLOPPY vol:NOT NAMED
free blocks: 253 | TEST PROGRAM P 1
type of load:- | DARKPARANOIA P 1
ENTIRE VOLUME | KEIKOS -L S 235
(GO to save or WIPE | KEIKOS -R S 235
to wipe disk/save) | SINE S 1
LOAD SAVE REN DEL HDSK FORM WIPE GO
    
```

The process of saving to disk is much the same as loading from disk. There are two major differences, however:

- 1) Disk space is measured in blocks - not percentage free space. One formatted MF2DD disk contains 796 blocks, and one MF2HD disk contains 1595 blocks.
- 2) The unexpanded S1100 is capable of holding more data than will fit onto a single MF2DD or MF2HD diskette. If you try to save an entire volume with many programs and samples, you will have to use more than one disk.

Disk operations

3) Disk volumes have a limit to the number of files which may be stored on them (samples, programs, drum settings, etc). It is unlikely that you will exceed this limit (64 files), but it is possible (for instance, a Latin percussion setup may use many samples, and have many different multi-timbral programs associated with it). Be aware of this limit when creating complex setups.

When you first press **SAVE**, all programs, samples and drum settings in memory are displayed on screen, together with the amount of space in blocks that they will take up on disk. Select the option to save: ENTIRE VOLUME, ALL PROGS+SAMPLES, ALL PROGRAMS ONLY, ALL SAMPLES, CURSOR PROG+SAMPS, CURSOR ITEM ONLY, or OPERATING SYSTEM in the same way as for loading.

If you choose one of the "CURSOR" items, move the cursor to the sample or program in memory that you want to save. Saving "CURSOR PROG+SAMPS" will automatically save any samples associated with the highlighted program. If the samples already exist on disk with the same name, they will be overwritten. Be careful if you are using samples which have been slightly modified between programs; give them different names to avoid overwriting what may represent hours of work.

If you want to check the files already on disk, you can press **LOAD** to view files on disk and then return to **SAVE**.

When you have made your selection press **WIPE** or **GO** to save your work. **WIPE** will erase all data already on the disk, and save the selected file(s), and **GO** will simply save the files in addition to any already on disk. If you are saving to diskette, and there are more files to be saved than will fit on a single diskette, you will be prompted to insert a new diskette.

Saving to hard disk follows the same procedure as saving to diskette. Note that if the hard disk is divided into partitions, you can load data from one partition, select another partition on the SAVE page, and save it into the newly-selected partition. It is not possible to transfer data directly between partitions — it must be done through memory, saving to diskette, or DAT backup (with the digital interface).

REN

In this page, you can rename individual files on disk, or rename a volume on disk (a diskette can contain only one volume, but a hard disk can contain many volumes). If you have a hard disk fitted or attached, select the partition, and the volume to be renamed, or the volume containing the file(s) to be renamed, otherwise, insert a diskette which contains data to be renamed. Press the **NAME** button to enter a new name.

```
RENAME ON DISK : FLOPPY vol:NOT NAMED
new name:-          TEST PROGRAM P 0X
NEW NAME           DARKPARANOIA P 0X
vol load number    KEIKOS      -L S 3X
(rename VOLUME or KEIKOS      -R S 3X
selected FILE)    SINE          S 1
LOAD SAVE REN DEL HDSK FORM VOL FILE
```

When you have entered the new name, press **(VOL)** to rename the volume (or diskette), or highlight a file with the CURSOR knob, and press **(FILE)** to rename the highlighted file.

With a hard disk fitted, MIDI Program Change messages may be used to load volumes. Use the "vol load number" parameter on this page to assign a number from 1 to 128 for the current volume, or set this value to OFF. On receipt of a Program Change message, the S1100 will scan all the hard disk volumes for a number set in this page which corresponds to the Program Change number in the MIDI message. The volume will then be loaded (the currently-selected program number will change to 1, and program number 1 of the volume which has just been loaded will be selected). It is possible to assign the same number to more than one volume. In this case, the first volume encountered (starting at the next volume after the current volume) with this number will be selected. In this way, automatic loading of data can be performed by a sequencer without the need for manual intervention.

NOTE: To rename a diskette or a file on a diskette, write-protection must be off.

DEL

In this page, you can delete a file or files from a diskette or hard disk. If you have a hard disk fitted, select the volume using the parameter field on the first line. There are a number of options that you can pick to determine what file(s) will be deleted.

DELETE	disk: - FLOPPY	vol: NOT NAMED
free blocks: 253	TEST PROGRAM P	1
type of delete:-	DARKPARANOIA P	1
CURSOR ITEM ONLY	KEIKOS	-L S 235
(GO to delete)	KEIKOS	-R S 235
	SINE	S 1
LOAD SAVE REN DEL	HDSK FORM	<input type="text"/> <input type="text"/> GO

CURSOR ITEM ONLY, as its name suggests, deletes only that file which is highlighted by the cursor. ALL PROGRAMS ONLY deletes all programs, but not their associated samples. ALL SAMPLES deletes all samples on the current volume, and ENTIRE VOLUME is the most drastic, erasing all data on the volume. There is another option, OPERATING SYSTEM, which simply removes the operating system from the volume.

NOTE: In order to delete a file or files from a diskette, write-protection must be off.

HDSK

When **HDSK** is pressed, three parameters are displayed, and two new options appear on the bottom line of the display (**BACK** and **PARK**). The three parameters allow you to set the ID number of the hard disk, and the SCSI ID number of the S1100.

Note that if a magneto-optical disk (such as the one fitted to the Akai DD1000) is used, there is a partition limit of 40Mb. The **(SKIP)** key may need to be pressed several times at power-on.

```
HARD DISK CONTROL
  Atari drive number: 0
    SCSI drive ID: 5
    S1100 SCSI ID: 6

Press PARK to set heads to safe position
LOAD SAVE REN DEL BACK FORN  PARK
```

When using the IB-103 interface board, SCSI (Small Computer Systems Interface) numbers may be from 0 to 7, and the two numbers for the S1100 and the hard disk must be different. If an internal hard disk is fitted, the number of this hard disk will be set to 5, and the SCSI ID of the S1100 for use when accessing from an external initiator will be set to 6 (this number can be changed).

The **BACK** key allows you to use the optional digital interface board (IB-104) to back up the contents of a hard disk (or the current volume in memory) to a DAT using the digital interface board. Use the EDIT SAMPLE **DIגי** page to set up digital transmission and either optical or electrical transmission. The transmission rate should be selected (either 48.0kHz or 44.1kHz) to match the data rate of the DAT. Select either "MEMORY" or "HARD DISK" as an option.

If you are backing up the volume in memory, you can change the volume name for further reference (use the **NAME** procedure). Start recording on the DAT, and press **SAVE** on the S1100. It will take about 30 seconds to save a volume. Samples will be saved in normal sample format, but sample headers, programs, etc will be saved in a special format. Both channels' data will be saved, but on restoration, only the L channel will be read.

Backing up the contents of the hard disk is a similar process. However, due to a time gap inserted between each data block, each volume will take about 100 seconds to save. All volumes on the hard disk will be saved.

Restoring data is a similar process. If you want to restore one volume into memory, enter the name of the previously-saved volume, set the "backup type" to "MEMORY", and press **LOAD** after setting the DAT to PLAY. If you wish to restore a hard disk, all volumes will be restored. It is not possible to make a partial restoration of data (one volume) from tape.

As saving and restoration progresses, the number of samples, programs and total volumes will be displayed on screen.

NOTE Though digital tape streaming offers many advantages in terms of speed, convenience, and price of media, AKAI does not guarantee the integrity of data backed up in this way. It is therefore strongly recommended that for archive copies of your data, you use diskettes.

PARK is a very important operation if you have a hard disk fitted, and should be performed every time you end a session with a S1100 with a hard disk fitted. If you do not have a hard disk fitted, this does not apply to you. The PARK procedure makes the hard disk safe for transportation. If you neglect to do this, you stand the chance of losing the data on the hard disk and the hard disk itself if the S1100 is roughly handled. Press **PARK**. If, for some reason, the heads on the hard disk are not parked properly, a message will tell you to try again. If you keep retrying and this message continues to appear, contact your AKAI dealer. Head parking is not a luxury — it is a necessity if you intend moving your S1100.

FORM

Before you can use a diskette, it must be formatted. MF2DD disks should be formatted as low-density, and MF2HD disks should be formatted as high-density. As explained earlier in this manual, these different types of diskette can be formatted in the other way, but it is not recommended that you do this.

FORMAT FLOPPY OR HARD DISK		: FLOPPV L
	BLOCKS	HARD PARTITIONS
track:	good:	size:60Mb
side:	bad:	
choose HIGH or LOW density:->		START
LOAD	SAVE	REN
DEL	HDSK	FORM
		HIGH LOW

Formatting a diskette will permanently remove all data previously recorded on it. Only format new diskettes or ones which contain data that you are sure you don't need any more.

Insert the diskette in the drive, select "FLOPPY" at the top of the screen, and press **HIGH** or **LOW**, depending on the density of the diskette to be formatted. The process will take about a minute, and the track and side number of the diskette will be displayed as the operation proceeds.

Hard disks can and should also be formatted before use. The maximum size of hard disk which can be formatted and used with the S1100 is 510Mbytes. If any larger hard disk is attached to the S1100, data above this size will not be recognized or used. For convenience, large hard disks should be split into partitions, which are named A, B, C, etc (if you are used to MS-DOS systems, these partitions are analogous to "logical drives" on a hard disk). All partitions must be the same size, which you can select with the "HARD PARTITIONS size" parameter to be 30, 40, 50 or 60Mbytes. The last partition on a hard disk takes up all the remaining space on the disk (eg on a 120Mbyte disk divided into 50Mb partitions, A and B will both be 50Mbytes, and C will be 20Mbytes). However, note the following partition sizes for the AKAI-supplied hard disks (80Mbytes), and other disks of the same size, when they are divided into two or three partitions. Sizes are given in blocks, where one block is 8kbytes.

Disk operations

80Mbyte hard disk				
Partition size as indicated on display	30Mbytes	40Mbytes	50Mbytes	60Mbytes
Partition A	3837	5117	6397	7677
Partition B	3837	5117	3846	2566
Partition C	2556	—	—	—

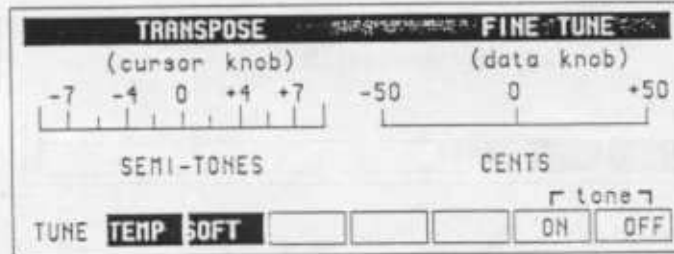
Select "HARD" at the top of the screen, and press either **FORM** or **ARR**, depending on the action you want to take. Formatting and arranging will both destroy all data on the hard disk — arranging being a faster operation than a full format (it simply initializes directories into a format suitable for use by the S1100). Make sure that there is no data which is only stored on the hard disk which you want to keep. When you press either **FORM** or **ARR**, you will be asked if you are sure that you want to delete all data on the hard disk. Answer "NO" if you have had second thoughts, otherwise answer "YES". Formatting will take a few minutes, followed by the arrange process. Bad blocks will be automatically "swapped out" in a verification procedure. You can bypass this verification process by pressing **SKIP**, but it is suggested that you let it run its course — it will end up safer in the long run.

When you have initialized the hard disk, save the currently-loaded operating system to Volume 001 of the hard disk, using the **DISK**, **SAVE**, "OPERATING SYSTEM" options. When you turn on the S1100, this operating system will automatically be loaded from hard disk (quicker and more convenient than having to use a copy of the system diskette every time). You can use the Volume **REN** function to rename Volume 001 to "Boot Volume" or similar.

5 MASTER TUNE

The **MASTER TUNE** button accesses a few basic jobs, primarily concerned with tuning.

Tuning and transposing

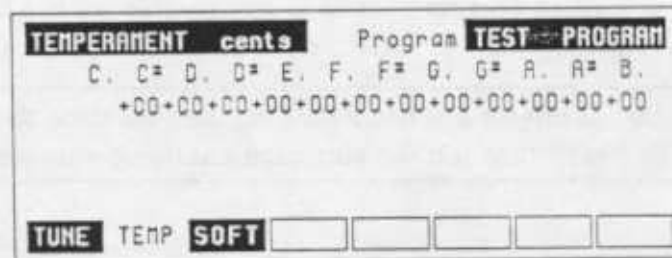


The S1100 can be transposed by ± 9 semitones and fine tuned by ± 50 cents (one semitone) to enable easy playing in difficult keys and to match tuning with other instruments. When you first press the **MASTER TUNE** button, two scales indicate the current transposition and tuning. Use the **CURSOR** knob to transpose up or down (one click of the knob equals one semitone), and the **DATA** knob to provide fine tuning (one click of the knob equals one cent). These transposition and tuning settings will be lost when power is turned off.

There are two action soft keys **ON** and **OFF**. These will turn an audio signal on and off to the stereo output connectors (and the headphones).

There are two sub-pages: **TEMP** and **SOFT**.

TEMP



Pressing the **TEMP** button allows you to set up different tuning temperaments for each program, if desired. If you are playing a percussive sample (say congas) in one program, which you do not want to correspond to standard Western chromatic equal temperament tuning, this is where you can alter things. Select the program whose temperament is to be altered on the top line of this screen. Use the **CURSOR** knob to select the note on the keyboard octave which will be retuned, and use the **DATA** knob to alter the tuning away from equal temperament by ± 25 cents (one quarter-tone). If you are retuning the C# key, for example, all notes played with the C# keys on the keyboard will be detuned by the amount you have set.

SOFT

SOFT	PEDAL	RESPONSE	Program:	TEST	PROGRAM
loudness reduction:10					
attack stretch:10					
TUNE	TEMP	SOFT	<input type="text"/>	<input type="text"/>	<input type="text"/>

This page contains two parameters which affect the way when a "soft pedal" (MIDI controller 67) is depressed, and a Note On command is received. The first parameter determines how the volume will be affected (0-99). The higher the number, the greater the amount of volume reduction. The second number determines how the attack will be stretched or "softened" when the controller is pressed. On an acoustic piano, the attack is not stretched when the soft pedal is depressed, but many other acoustic instruments have a slower, softer attack when played quietly. This parameter (0-99) allows you to simulate this.

Real-time digital stereo output

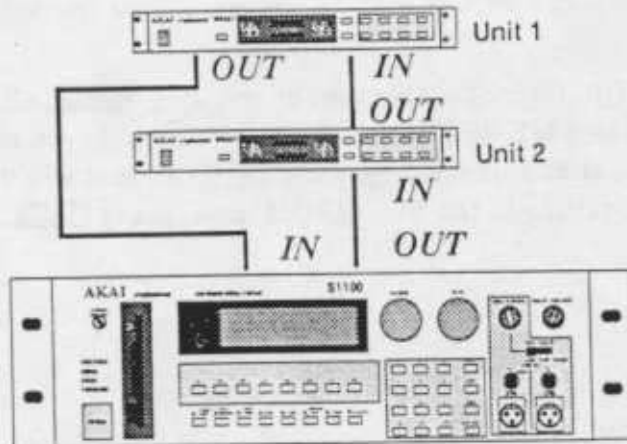
The S1100 is equipped with a real-time digital output that allows you to play audio digitally to a DAT or any other piece of equipment that features a digital input. Furthermore, using **F4** in the MASTER TUNE MODE, it is possible to set the level of this digital output to -6dB, 0dB (ie no level change) and 12dB. This is useful for matching levels as this is not normally possible on most units that have digital inputs.

The digital audio format on this output is compatible with AES/EBU and SPDIF digital audio formats.

NOTE The internal effects are not heard on the real-time stereo digital output. They can only be heard through the standard analogue outputs.

6 DRUM

The S1100 is capable of acting as a highly sophisticated percussion synthesizer, using the AKAI ME-35T audio/MIDI trigger interface unit to produce MIDI trigger signals from a variety of sources. Two such units may be connected, and programming of them may be carried out from the S1100 rather than on the more limited displays and controls of the ME-35Ts. For such programming to take place, a MIDI loop must be set up, from IN to OUT and OUT to IN.



Use the S1100 to set the OUTs of the ME-35Ts to a "soft THRU" - first Unit 1, then Unit 2

Since this is a manual for the S1100, full details of the operation of the ME-35T will not be given here. Refer to the ME-35T manual for operational details. However, note that to set up the MIDI Exclusive channel on the ME-35T, the **MIDI CH** and **MIDI NOTE** buttons on the ME-35T should be pressed simultaneously. The following parameters on the ME-35T may be set up from the S1100:

DRUM INPUT SETTINGS		name: DRUM INPUTS	
unit: 1	input: ALL		
chan: 1	capture: 0mS		
note: 60	recover: 0mS		
sens: 0	on-time: 0mS		
trig: 0	U-curve: 1		
EDIT	CONT		IN: -1 2 3 4 5 6 7 8

The name of the drum input settings may be altered using the **NAME** procedure. Either one of two ME-35Ts may be selected for parameter editing ("unit").

DRUM

ALL inputs may be globally edited to rough values, and then individual (1-8) inputs may be selected for fine adjustment. This method of working can save you a lot of time.

The "chan" (1-16) and "note" (C0-G8) of the selected input(s) can be selected, as can the sensitivity and trigger levels of the inputs (both can be varied from 0 to 99). Note that as the trigger levels are adjusted, they are displayed graphically on the right of the screen.

The capture, recovery and on-time of the inputs can be adjusted. The capture and recovery times are variable from 0mS to 20mS, and the on-time is variable from 0 to 999mS.

One of eight velocity response curves may be chosen — see the ME-35T manual for details of these curves.

The second page of the DRUM mode, accessed by pressing **CONT**, allows you to set up MIDI parameters for up to two ME-35T units. Parameters which you can set are: operation (ON or OFF), exclusive channels for programming (1-16) and enable of MIDI THRU operation (ON or OFF). To return to the first DRUM page, press **EDIT**.

7 UTILITY (cue-list)

One common application of samplers is to use them for dubbing sound effects in audio/visual productions. Unfortunately, in the past, the only way to trigger these sound effects was to use a MIDI keyboard or sequencer. Most audio/visual post-production suites do not employ MIDI and use timecode (SMPTE and/or EBU) to synchronise equipment and trigger sound effects. The S1100 features an internal timecode reader/generator and the ability to create sophisticated cue lists making it ideal for audio/visual post production. These facilities are available in the UTILITY pages and pressing the UTILITY button found to the far right of the bottom row of gives you this display:

QPLAY	CUE LIST 1	time	:	:	:
00:00:01:00.0	GUNSHOTS	ON	C_3	127	
00:00:02:00.0	GUNSHOTS	ON	C_3	127	
00:00:03:00.0	FOOTSTEPS	ON	C_3	127	
00:00:04:00.0	FOOTSTEPS	ON	C_3	127	
00:00:05:00.0	GUNSHOTS	ON	C_3	127	

PLAY EDIT SMPT GRAB Pext Pint Cint STOP

This is the QPLAY mode where you may play, create and edit cue lists. Only one cue list can reside in the S1100 at any one time and the maximum number of events in a cue list is 250.

The basic premise is that you specify a code-based time for an event and this sends a MIDI note to one (or more) of the S1100's internal programs. Any MIDI note may be specified at any MIDI velocity to trigger any sound in any program in the S1100. Unlike other modes of the S1100, it is not necessary to specify program numbers for each of the programs as the S1100's cue list simply 'looks' at the program specified for the event and plays the appropriate note in that program. In other words, if you set the following for an event:

```
00:00:12:00.0 GUNSHOTS ON C_3 127
```

the S1100 will send a MIDI note ON event to play a gunshot sound effect on C3 in the GUNSHOT program at 12 seconds with a MIDI velocity of 127. You may have any number of programs in one cue list and these programs can contain any number of samples in keygroups on specific note numbers. You may layer two or more samples on top of each other within any one keygroup and these will be played simultaneously when the appropriate MIDI note number is sent from the cue list.

You may use the cue list in several ways. You could set up a program that contains all the sound effects for your production and assign these to different MIDI notes in their respective keygroups. In the cue list, you would simply assign the one program to every event and then specify the appropriate MIDI note numbers for each event. Alternatively, you could create a number of programs that contain just one sample in each program and these could be triggered by the cue list. Another method is a mixture of both techniques. You could have several programs, each with sound effects assigned to different MIDI note

numbers. For example, you could put all your gunshot sound effects in one program, all your footsteps in another, all your traffic noises in another and set the cue list to play the appropriate sound effect (ie the MIDI note number) from the required program.

As you have already discovered in EDIT SAMPLE, there are many different ways you can play back a sample in the S1100. A sound can be looped or it can simply play to the end of the sample. If the sound has no looping set in it, then it is not necessary to set a MIDI note OFF command to it when it is triggered in the cue list and so all that is required is a MIDI note ON event for such samples. If, however, the sample has a loop set in it, then it will be necessary to send a MIDI note OFF in order to stop it sounding at the required moment although you will note that if the cue list is stopped during playback of a looped sample, the sample will automatically be stopped and you will not be left with a 'hanging' drone.

The 16 voice polyphony of the S1100 effectively gives you 16 tracks of audio available through the stereo outputs and/or the 8 individual outputs. Of course, you may also assign effects to the sounds although, please bear in mind that every program would have to share the same program number as it is not possible to have different programs with different effects sounding simultaneously.

Before we look at the different modes within the cue list pages, let us first examine some of the functions of the cue list as these are very important in the creation and editing of cue lists.

Blocks

All editing of the cue list is done using 'blocks'. A block can be just one single event or a group of events and there are dedicated soft keys for identifying the start and end of a block which work in conjunction with the numeric keypad which functions as a cursor control in the cue list mode. When you identify a block, a highlighted box appears to the left of the selected event(s).

The cursor

The cursor can be moved around the cue list in the usual way using the CURSOR wheel but there is also a highlighted vertical field running down the side of the cue list called the 'scroll bar' and there is a pointer cursor that indicates the current position of the cursor in the cue list. This pointer cursor can be placed above or below an event and this is used to mark events for copying, insertion or deletion. You may also use this cursor to play the cue list from any point. In the cue list edit mode, there is an indicator at the top of the screen to show the current event number the cursor is placed on.

Getting around the cue list - using the numeric keypad

When you are in the cue list, the numeric keypad has a slightly different function to the other modes in the S1100 as it allows you to move the cursor up and down the cue list scroll bar.

Pressing **[0]** always takes you to the start of the cue list.

Pressing **[+/-]** takes you to the end of the cue list.

Pressing any of the number keys moves you down the list by the same number of steps as the number key you pressed. In other words, pressing **1** moves you down the list one event at a time, pressing **2** moves you two steps at a time, pressing **3** takes you three steps at a time, etc.

By pressing the **-/>>** key AND a number key simultaneously, you can move up the list. For example, pressing **-/>>** and **6** will take you six steps backwards in the list.

Pressing the **+/<** key AND the **-/>>** key simultaneously takes you to the start of the block.

If you are on a field in the cue list (ie the cursor is not in the scroll bar), you may move to the scroll bar instantly by pressing the **ENT** key. When the cursor is on the scroll bar and pointing to an event, you may press the **ENT** key to play that event.

If the cursor is on a numeric field in the cue list, the numeric keypad functions in the normal way and this cursor control facility only ever works when the pointer cursor is on the scroll bar.

Cue list modes

There are three basic modes in UTILITY for playing, creating, editing and setting up cue lists which are accessible through soft keys **F1**, **F2** and **F3**. These are:

PLAY

This is where you play a cue list and this mode has several 'transport' controls for a variety of different playback functions.

EDIT

This is where you can edit and/or create a cue list.

SMPTE

This where you set the S1100 SMPTE receive/transmit parameters.

Editing cue lists

Let us now create a cue list so press **EDIT** (**F2**) to take you to the cue list edit page; you will see this display:

2	at:+00:00:00:00.0	sl:+00:00:00:00.0			
█	00:00:01:00.0	GUNSHOTS	ON	C_3	127
█	00:00:02:00.0	GUNSHOTS	ON	C_3	127
█	00:00:03:00.0	FOOTSTEPS	ON	C_3	127
█	00:00:04:00.0	FOOTSTEPS	ON	C_3	127
█	00:00:05:00.0	GUNSHOTS	ON	C_3	127
PLAY EDIT MARK BLCK INS DEL SLIP SORT					

The fields across the top of the screen are:

To the far left of the screen is a highlighted numeric field that is inaccessible to the user. This shows the current event number and, as the cursor is moved up and down the scroll bar, this number changes to indicate the event number in the list.

mt

This sets a master offset time for the cue list and data is input using the data wheel or the numeric keypad. The whole cue list can be offset forwards by pressing the **+/<** key when the cursor is in this field or backwards by pressing the **-/>** key when the cursor is in this field.

sl

This allows you to set the time by which you want to slip a block of events in time and data is input using the data wheel or the numeric keypad. You may slip a block of events forwards using the **+/<** key when the cursor is in this field or backwards using the **-/>** key when the cursor is in this field. This facility works in conjunction with the **SLIP** soft key (**F7**) described below.

Before we look at the other fields on this screen, let us first examine the function of the soft keys as these play an important part in the creation of a cue list.

MARK - **F3**

Pressing this key sets the start mark of a block as set by the position of the pointer cursor in the scroll bar.

BLCK - **F4**

Pressing this soft key sets the end mark of a block as set by the position of the pointer cursor in the scroll bar.

To mark a block, move the cursor to the event you wish to set and press mark. Now move the cursor down the list using the numeric keypad as described earlier and press BLCK at the point you wish to mark as the end. It is possible just to mark one event and this is done by pressing only MARK at the event you wish to set and not pressing BLCK.

INS - **F5**

This allows you to copy and insert a marked event or block. To insert an event, place the pointer cursor at the event you wish to copy and press MARK. Now move the cursor using the numeric keypad to the position at which you wish to insert this event and press **F5** - **INS**. The marked event will be inserted at the point indicated by the pointer cursor. You may now edit this event if you wish.

You may also copy and insert blocks in the same way. Place the cursor at the point at which you wish to set the start of the block and press MARK. Now, using the numeric keypad, move the cursor to the point you wish to set as the end of the block and press BLCK. You may now move the cursor to the position at which you wish to insert this block and press INS. The marked block will be inserted at the point indicated by the pointer cursor. You may now edit the cues in that block if you wish.

DEL - **F6**

This deletes the marked event(s)

SLIP - (F7)

This allows you to move a marked event or block of events backwards or forwards in time. This is most useful on blocks of cues that need to be shifted very slightly. When you press SLIP, the cursor will automatically be placed on the 'sl:' (slip time) field at the top right of the screen and you may set this field accordingly. After that, pressing (SLIP) - (F7) - will slip the marked event(s) by the amount set in the 'sl:' field.

SORT - (F8)

This allows you to sort a cue list's events into chronological order. The S1100 will play events in the right sequence even if they appear out of time on the screen but, to make things clearer for yourself, you may want to place them in strict time order so that they follow consecutively on the screen display.

When you first enter the EDIT CUE page, you will always be presented with one cue. This is a MIDI note ON cue set at 00:00:00:00.0 with no program assigned. The default MIDI note is C_3 (note number 60) and the default velocity setting is 127. You may use this as the basis for your cue list using the various copy and insert functions.

To create a number of cues, simply press (F5) - (INS) - a few times to create some new cues. Now, simply set the appropriate SMPTE times and assign the relevant program(s) and MIDI note number(s). You may also specify the velocity setting for the cue(s) if you wish to affect a cues loudness or volume. You will note that a SMPTE time other than 00:00:00:00.0 HAS to be specified for any cue as this SMPTE time effectively represents 'no time' and so the cue will not sound.

If the sound has no looping (ie in EDIT SAMPLE, it is either set to "PLAY TO SAMPLE END" or no loop has been set) then it is not necessary to specify a MIDI note OFF for every event - only when a sample has a loop set in it is it necessary to specify a MIDI Note Off or, if a long sample needs to be shut off before it reaches the end of its duration. If you wish, you may specify a Note Off command at any time to cut a sample short without having to edit its end point in EDIT SAMPLE.

Playing the cue list

You may now copy and insert either single events or blocks of events as you wish until the cue list is complete. At any time, to hear the results of your efforts, press (F1) - **PLAY** - to take you to the cue play screen. You will see this display:

QPLAY	CUE LIST	I	time	:	:	:								
█	00:00:01:00.0		GUNSHOTS	ON	C_3	127								
█	00:00:02:00.0		GUNSHOTS	ON	C_3	127								
█	00:00:03:00.0		FOOTSTEPS	ON	C_3	127								
█	00:00:04:00.0		FOOTSTEPS	ON	C_3	127								
█	00:00:05:00.0		GUNSHOTS	ON	C_3	127								
<table border="1"> <tr> <td>PLAY</td> <td>EDIT</td> <td>SMP</td> <td>GRAB</td> <td>Pext</td> <td>Pint</td> <td>Cint</td> <td>STOP</td> </tr> </table>							PLAY	EDIT	SMP	GRAB	Pext	Pint	Cint	STOP
PLAY	EDIT	SMP	GRAB	Pext	Pint	Cint	STOP							

This page allows you to play the cue list from any point and there are several 'transport' controls that do this.

F5 - Pext:

This is an abbreviation for PLAY EXTERNAL and plays the cue list but only when it is receiving incoming SMPTE from an external source. If the external source stops, then the S1100 will stop. If the external source is 'rewound' (either physically, as in the case of an audio or video tape deck, or 'virtually', as in the case of a hard disk recorder such as the Akai DD1000, or a EDL editor) to another location, the S1100 will pick up the new timecode position and re-commence playback from that point although you should note that if playback recommences at a point that is halfway through a sample, that sample will not play. If no timecode is present at the SMPTE IN socket, then of course nothing will happen when **Pext** is pressed! When the cue list is playing, the cue list will scroll through the cue list and a small highlight appears to the left of the cues to indicate that the event has played. The current cue playing is always the middle cue in the screen except when playing the first three cues at the start of a cue list.

F6 - Pint

This is an abbreviation for PLAY INTERNAL and will play the cue list from its own internal SMPTE generator. It will also transmit SMPTE timecode through the SMPTE OUT socket on the rear of the S1100 allowing you to control external devices using the S1100 as the master timecode clock source. When the cue list is playing, the cue list will scroll through the cue list and a small highlight appears to the left of the cue to indicate that the event has played. The current cue playing is always the middle cue in the screen except when playing the first three cues at the start of a cue list.

F7 - Cint

This is an abbreviation of CONTINUE INTERNAL and pressing this after pressing **STOP** (see below) will play the cue list from the current position of the pointer cursor. This also transmits SMPTE timecode through the SMPTE out socket from the point at which playback is re-commenced. You can freely move the pointer cursor to any location in the cue list to commence playback from any point using this key. When the cue list is playing, the cue list will scroll through the cue list and a small highlight appears to the left of the cues to indicate that the event has played. The current cue playing is always the middle cue in the screen except when playing the first three cues at the start of a cue list.

F8 - STOP

Not surprisingly, this stops playback of the cue list in all play modes. It also stops transmission of timecode from the SMPTE out socket.

In this page, it is also possible to name a cue list. To do this, press NAME and type in the name (up to 12 characters)-followed by pressing ENTER. The 'time:' field to the right of the name display shows the current time of either the internal or external timecode.