

# **Ultimate 1MB, Incognito, SIDE, 1088XEL|U1MB and 1088XLD|U1MB XEX Loader Quick Reference**

## **for Atari 8-bit Computers**

## The SIDE/XEL Loader

The SIDE/XEL Loaders found on the Ultimate 1MB (U1MB), Incognito, SIDE/SIDE2 and the 1088XEL/XLD share virtually identical functionality. This document provides a brief introduction to the loader and describes keyboard and joystick shortcuts, not all of which are displayed in the loader itself owing to space constraints and other design considerations.

On a stand-alone SIDE cartridge, the loader will automatically start when the computer is turned on if the SIDE cartridge's switch is in the upper (loader) position. If the switch is in the lower (SDX) position, you may start the loader by typing 'CAR' at the SDX command prompt.

On U1MB and Incognito systems, the loader is built into the firmware and is most commonly launched by turning on the machine with the 'L' key held down, pressing 'L' while the splash screen is displayed, or pressing 'L' after first entering the BIOS setup menu. You may also start the loader via the joystick by navigating to the Loader option on the 'Save and Exit' menu.

Once the loader has launched, you'll see a display similar to this:



Usually, by default, the 'launcher' menu is displayed, which shows the root or the last-accessed (if the 'Recall folder' setting is enabled) directory of the last-accessed or only FAT partition on the disk.

## File Types

The launcher displays the following file types:

Extension	File Type
XEX	Binary executable
EXE	Binary executable
COM	Binary executable
ATR	Disk image (only if U1MB is present and the PBI hard disk is enabled)
BAS	Tokenised BASIC program
MAP	Script describing multiple ATR mounts

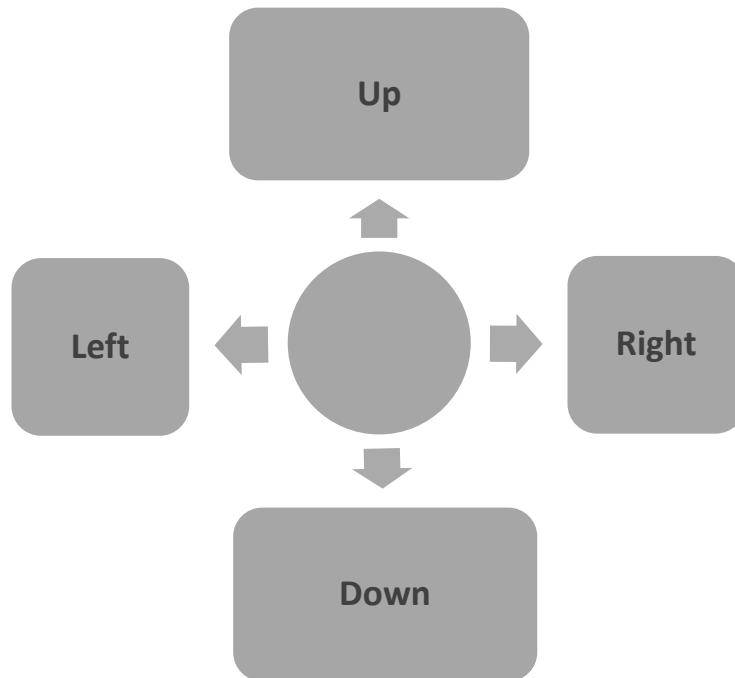
In addition, sub-folders, parent directory and root directory symbols may appear in the filename list. To open, execute, or mount a file, highlight it and press RETURN.

## Movement and Selection

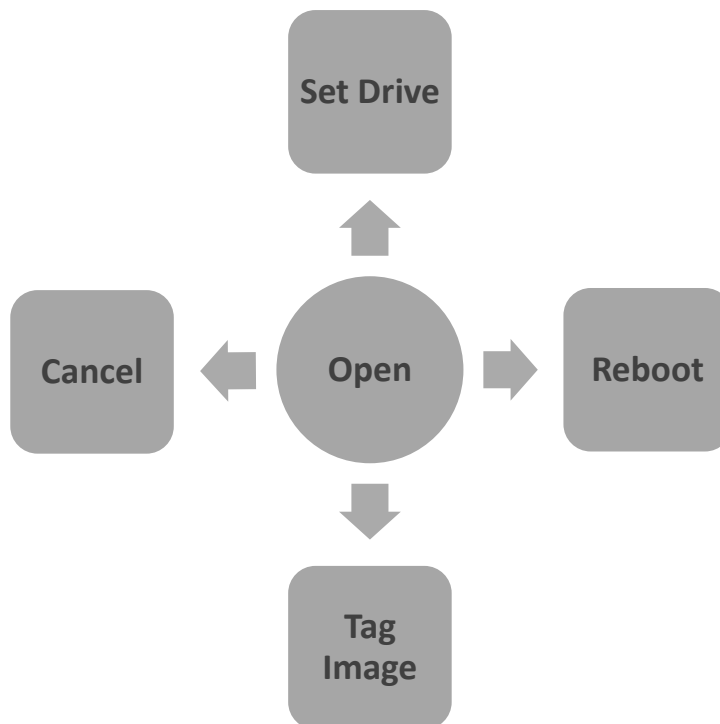
Action	Keyboard	Joystick	1200XL F-Key
Previous Menu	LEFT ARROW	LEFT	F3
Next Menu	RIGHT ARROW	RIGHT	F4
Previous Item	UP ARROW	UP	F1
Next Item	DOWN ARROW	DOWN	F2
Page Up	SHIFT+CTRL+UP ARROW	N/A	SHIFT+F1
Page Down	SHIFT+CTRL+DOWN ARROW	N/A	SHIFT+F2
Select/Open/Edit	RETURN	Button	CTRL+F3
Select/Open/Edit with modifier	CTRL+RETURN/SHIFT+RETURN	N/A	CTRL+F4
Set Drive Number	TAB	UP with button	CTRL+F2
Tag with next drive number	CTRL+SPACE	DOWN with button	CTRL+F1
Tag with specified drive	CTRL+Number (1-9)	N/A	N/A
Cancel drive selection, exit search mode, or back up to the parent directory	ESC	LEFT with button	N/A
Delete the previous character of the search phrase	DELETE/BACKSPACE	N/A	N/A
Clear the search phrase	CTRL+CLEAR	N/A	N/A
Start of List	CTRL+A	N/A	SHIFT+F3
Toggle BASIC	CTRL+B	N/A	N/A
Refresh Disk	CTRL+D	N/A	N/A
Open location of logical drive image or found item	CTRL+F	N/A	N/A
Home (Root) Folder	CTRL+H	N/A	N/A
Next 250 entries of long directory	CTRL+M	N/A	
Parent Folder	CTRL+P or ESC	N/A	N/A
Restart	CTRL+R	RIGHT with button	N/A
Swap ATRs	CTRL+S or ATR Swap Button	N/A	N/A
Undo Mounts	CTRL+U	N/A	N/A
Reboot to SpartaDOS X (U1MB only)	CTRL+X	N/A	N/A
End of List	CTRL+Z	N/A	SHIFT+F4
Abort search	BREAK	N/A	N/A

## Joystick Control Quick Reference

For reference, joystick actions with the trigger released are as follows:



Joystick actions with the trigger held down are as follows:



## Function Modifiers

SHIFT or CTRL held with the Return key have special meaning depending on the selected item's type and the context of the operation:

Item type	RETURN	SHIFT+RETURN/CTRL+RETURN
XEX file in logged folder	Run in logged folder	
XEX file in search results	Run in own folder	Run in logged folder
BASIC program in logged folder	Run in logged folder	
BASIC program in search results	Run in its own folder	Run in current folder
ATR	Mount and reboot	Mount
MAP file	Mount and reboot	Mount
Toggle or list	Next/higher setting/value	Previous/lower setting/value

## Searching

To search for a filename, simply start typing its name. The loader will search the entire directory tree of the logged FAT volume (starting at the currently logged folder, so you should first log the root directory in order to search the entire volume) and build a list of filenames which contain the search phrase. The maximum number of matching filenames which may be displayed is 250, and you may move through the list and perform several functions (such as mounting ATRs or launching an executable) while the list is still being processed. When the search completes, the number of matching filenames will be displayed. If more than 250 filenames matched, 'Too many items!' will be displayed.

To abort the search while it is running and work with the filenames already matched, press the BREAK key or move to a different menu. To exit search mode:

- Press ESC
- Press BACKSPACE after clearing the search phrase with BACKSPACE or CTRL+CLEAR
- Press CTRL+F to open the highlighted item's location
- Press CTRL+H to open the root folder of the volume
- Open a highlighted item

## Error Codes

Error codes returned by the loader correspond to those issued by Atari DOS and SpartaDOS X.

<b>128</b>	<b>\$80</b>	<b>User break abort</b> The user pressed the BREAK key during an IO operation.
<b>130</b>	<b>\$82</b>	<b>Non-existent device</b> The device name supplied does not exist. Since the loader's FMS supports only one drive, this error will be returned when any drive specifier other than 'D:' or 'D1:' is used. In the context of MAP files, this error will be returned when an invalid mount point is provided (i.e. a drive outside of the range 'D1:'-'DO:').
<b>133</b>	<b>\$85</b>	<b>File not open</b> An attempt was made to read from a file which has not first been opened.
<b>136</b>	<b>\$88</b>	<b>End of file</b> The end of the file was reached.
<b>139</b>	<b>\$8B</b>	<b>Device NAK</b> The device failed to respond. This error may be caused by an attempt to read a Compact Flash card which has been removed or is failing.
<b>142</b>	<b>\$8E</b>	<b>SIO overrun</b> This error indicates that the IO is out of sync with the Compact Flash card, usually as a result of system instability preventing reliable communication between the computer and the storage device. Use a different card or address system instability.
<b>146</b>	<b>\$92</b>	<b>No function in device handler</b> An attempt was made to perform an operation not supported by the loader's FMS driver, such as opening a file for read, attempting to manipulate the file pointer, etc.
<b>150</b>	<b>\$96</b>	<b>Path not found</b> The specified directory path does not exist. This error may be returned by the FMS driver (if attempting to access a non-existent directory) or when the path in a MAP file references a non-existent location.
<b>161</b>	<b>\$A1</b>	<b>Too many channels open</b> The loader's FMS supports only one open file at any time. Attempting to open a second file without closing the first will cause this error.
<b>165</b>	<b>\$A5</b>	<b>Bad filename</b> The filename contains illegal characters or is otherwise malformed. While MAP files may contain long filename entries in the path and target file specification, filenames passed to the FAT FMS driver should be in standard '8+3' format.
<b>170</b>	<b>\$AA</b>	<b>File not found</b> An attempt was made to access a file which does not exist.

## Limitations

### Maximum number of files and folders

The launcher can display a maximum of 250 entries (files and folders) in a given folder at one time, although directories of unlimited length may be displayed by paging through the directory 250 items at a time via the '...' symbol or the CTRL+M shortcut.

The list of search results may not exceed 250 items. If many lengthy filenames are indexed, this limit may be reduced if the buffer is filled up (filenames may be up to 128 characters in length). The FMS driver (which allows CIO access to FAT volumes), meanwhile, imposes no restrictions on the number of files per directory.

Recursive searches (starting at the currently logged folder) may scan a virtually unlimited number of folders, nested to any depth.

### MEMLO

The XEX loader resides between \$0700 and \$09FF (768 bytes), and an executable file must not overwrite this memory area. If an XEX is to use the built-in FAT FMS, it should not load below \$1600, and a standard 'safe' load address (\$1F00 or \$2000) is highly recommended in case of future FMS expansion.



## Feedback

If you find any bugs or have ideas for added functionality, please contact me by [email](#), or at AtariAge via PM (to user flashjazzcat) or in the [Alt BIOS discussion thread](#).

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