



Function Description
Version 3.09

[system-99 user-group](#)

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Actual versions at [system-99 user-group](#)

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DSR-Loader 3

General Information

With this program it is possible to load/install a new DSR in all known System-99 User Group cards that use a FLASH-EPROM.

A list of supported cards is in the table on page 7.

Also included in DSR-Loader 3 is an Emergency Loader that makes it possible to replace a defective DSR that prevents power-up.

Main Screen

DSR-Loader 3 v3.09 - 16.05.2005 hg	Screen Header Row
Load to Card: - CRU-Address: LoadAddress: Loadertype: -	Information Window
Flash-Rom: -	Epromptype Window
File: DSK1.HSGPLDSR	Filename Window
(F)ilename (T)est (L)oad (V)erify	Status Row

Screen Header Row

Displayed here is the program name, Version number, and creation date.

Information Window

In this window, all of the information that DSR-Loader 3 reads from the DSR files is displayed. The information is displayed during and after the files are read.

Epromptype Window

The display of the type of Eprom to be programmed will appear in this window. First the manufacturer and then the eprom type are displayed.

Filename Window

Displayed here is the disk drive number and filename of the files to be loaded. The filename can be entered directly or from the disk catalog.

Status Row

This window displays the command keypresses and any error messages and other information about the status of the program.

DSR-Loader 3

Program Functions:

All of the functions of DSR-Loader 3 are selectable with a single keypress or a combination of keypresses.

F – Filename Entry

You can enter a disk drive number and filename of up to 26 character in the format “DSKx.filename”

C - Catalog

After pressing “C” you will be prompted for a drive number. Entering the drive number and pressing <ENTER> will catalog the disk. Choose a filename with <ENTER> and navigate through the catalog with the Up and Down arrows.

V – Verify Files

This function allows you to compare the files that you have chosen with the DSR currently in the card. It will report whether there is a difference or if they are identical

T – Test Files

This program function allows you to test the chosen files to see if they are, in fact, valid DSR files. This is especially valuable if you have a group of files with an unknown content.

L – Load Files

This function loads the files into the DSR from the specified disk drive. Before loading it is wise to test the files to make sure they are of the correct type.

FCTN-V – Verify Single File

In contrast to the “V” command, this function will verify a single file with the DSR. There is no automatic step to the next file in the series.

FCTN-T – Test Single File

In contrast to the “T” command, only the named file is tested. There is no automatic step to the next file in the series.

FCTN-L – Load Single File

In contrast to the “L” command, only the single, named file is loaded. There is no automatic step to the next file in the series.

Q – Exit

This exits the program. FCTN-= and FCTN-9 are also active.

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Emergency Loader

The program is equipped with an Emergency loader for the ASCSI card. It is possible, for example, to reload the DSR in place of a non-functioning DSR or a corrupted GROM0 that prevents the TI from starting at power-up from the HSGPL card.

This could be caused, for example, by an incorrect file that was loaded into the FLASH-EEPROM or a program error in the power-up that prevents the successful start of the TI system.

The ASCSI card **must** be installed at >0700 which is not polled at startup in an otherwise normal system so that the DSR is available at power-up. If this is not the case, the DSR-ROM of the ASCSI card must be exchanged for one that has been properly programmed.

After loading DSR-Loader 3 press the key combination **FCTN-A** or (for Advanced Emergency Loader). A tone will sound and a message will appear in the Status Row and the screen will change to red. In the Emergency Load mode, the header word at >12 (Card ID and Load ID) are ignored so that the card at >0700 can be reached and programmed.

It is possible to program a FLASH-EEPROM that is not intended for the TI. The programmed data must be in 8 KB blocks and must conform to the specifications described in the header format.

Use the program with these restrictions so that the file information always loads properly into the ASCSI located at >0700.

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Technical Appendix

Header Format of the DSR-Loader 3

The format for the first 20-Bytes of the DSR-Header follows:

Offset	Content	Name	Description
>0000	>0000	EA5 (Load flag)	These 10 bytes are a normal EA5 Header with the addition of a BLWP @>0000, to perform a start or warm start or go through to a transfer address to display a message. For example, "This program is a DSR program for use only with card XY and only loaded with Loader XY".
>0002	>2000	EA5 (Length)	
>0004	>A000	EA5 (Target address)	
>0006	>0420	EA5 (BLWP)	
>0008	>0000	EA5 (@Address)	
>000A	>www	Load flag	If there are more files to be loaded by DSR Loader 3, the flag will be (>FFFF) or if it is the last file in the DSR it will be (>0000).
>000C	>HHHH	High-Address of DSR	This is the High Address (>HHHH) and the Low Address (>LLLL) of the DSR range into which the DSR files are loaded. The DSR for each card can consist of 1024 Kbytes and the address must always be read as a double word (>HHHHLLLL).
>000E	>LLLL	Low-Address of DSR	
>0010	>6267	Flash-ID	A protection word that stops a non-DSR to be loaded into the DSR range.
>0012	>KKVV	Card ID Loader Version	>KK is the card identification byte to prevent the mixing of DSR files. >VV is the expected Loader Version byte.

DSR-Loader 3

Supported Cards:

Card Name	Card ID	Expected Loader Version
HSGPL	>01	>01
ASCSI 1	>02	>01
ASCSI 2	>03	>02
SPVMC	>04	>02
EVPC 2	>05	>03

Note: DSR-Loader 3 only supports ATMEL-Types for the HSGPL card

Supported FLASH Suppliers:

Trademark	Maker	Size
AT29C512	ATMEL	64 KB
AT29C010	ATMEL	128 KB
AT29C020	ATMEL	256 KB
AT29C040	ATMEL	512 KB
AT29C040A	ATMEL	512 KB
S29C51000T	MoselVitellic	
S29C51001T	MoselVitellic	
S29C51002T	MoselVitellic	
S29C51004T	MoselVitellic	
29EE(C)512	WINBOND	
29EE(C)011	WINBOND	
W29C020(C)	WINBOND	
W29C040	WINBOND	
PH29EE512	SST	

Supported Load Process:

Load Process	Reflected in the Card
GPL	HSGPL
CRU	ASCSI 1 ASCSI 2 SPVMC
CRU2	EVPC2