Model 100 ROM Routines

This is a description of Model 100 ROM routines and addresses. Although not thoroughly tested, the information is correct to the best of our knowledge. It is provided for your convenience.

LCD FUNCTIONS AND ESCAPE CODES

Routines for generating common LCD functions and Escape Codes. These functions have no entry or exit parameters.

Function Name	Entry Address	Equiv. ESC	Description
CRLF	4222H	—	Generate a Carriage Return and Line Feed.
HOME	422DH	—	Move cursor to Home position (1,1).
CLS	4231H	—	Clear Display.
SETSYS	4235H	T	Set system line (lock LCD line 8).
RSTSYS	423AH	U	Reset system line (unlock LCD line 8).
LOCK	423FH	Y	Lock LCD display (no scrolling).
UNLOCK	4244H	W	Unlock LCD display (scrolling).
CURSON	4249H	P	Turn on cursor.
CUROFF	424EH	Q	Turn off cursor.
DELLIN	4253H	M	Delete a line on LCD at current line.
INSLIN	4258H	L	Insert a blank line on LCD at cursor.
ERAEOL	425DH	K	Erase from cursor to End Of Line.
ENTREV	4269H	p	Set reverse character mode.
EXTREV	426EH	q	Turn off reverse character mode.

LCD VARIABLE AND STATUS LOCATIONS

Name	Address	Contents
CSRY	F639H	Cursor Position (ROW).
CSRX	F63AH	Cursor Position (COLUMN).
BEGLCD	FE00H	Start of LCD memory.
ENDLCD	FF40H	End of LCD memory.

DIRECTORY TABLE

DIRTBL F962H Directory table, contains all file location, status and type information.

Each file in the system is managed by an 11 byte directory entry in the following format:

Byte 1 : Directory Flag (indicates file type and status).
Bytes 2-3 : Address of file
Bytes 4-11 : Eight (8) byte filename.

The directory flag contains the following information:

Bit 7	(MSB)	1 if a valid entry
Bit 6		1 for ASCII text file (.DO)
Bit 5		1 for machine lang. file (.CO)
Bit 4		1 for ROM file
Bit 3		1 for invisible file
Bit 2		Reserved for future use
Bit 1		Reserved for future use
Bit 0		Internal use only

ROM ROUTINES

LCD FUNCTIONS

LCD—Displays a character on the LCD at the current cursor position.

Entry Address : 4B44H (or RST 4)
Conditions: A = Character to be displayed
Exit Conditions : none

PLOT—Turn on one LCD pixel at the specified location.

Entry Address : 744CH
Entry Conditions: D = X coordinate (0-239)
E = Y coordinate (0-63)
Exit Conditions : none

UNPLOT—Turn off one LCD pixel at the specified location.

Entry Address : 744DH
Entry Conditions: D = X coordinate (0-239)
E = Y coordinate (0-63)
Exit Conditions : none

POSIT—Get the current LCD cursor position.

Entry Address : 427CH
Entry Conditions: none
Exit Conditions : H = Column Number (1-40)
L = Row Number (1-8)

ESCA—Send a specified Escape Code sequence.

Entry Address : 4270H
Entry Conditions: A = Escape Code
Exit Conditions : none

KEYBOARD FUNCTIONS

BRKCHK—Check for BREAK characters only (Control C or Control S).

Entry Address : 7283H
Entry Conditions: none
Exit Conditions : Carry:Set if BREAK (CNTRL-C) or PAUSE (CNTRL-S)entered.
Reset if no BREAK or PAUSE characters.

INLIN—Get a line from the keyboard-terminated by ENTER.

Entry Address : 4644H
Entry Conditions: none
Exit Conditions : Data is stored at location F685H.

STFNK—Set Function Key definitions (F1-F8).

Entry Address : 5A7CH
Entry Conditions: HL = Address of function table.
Exit Conditions : none