NEC

Customer Notification

78K0™ Series

DSWIN-CDR-78K0

Operating Precautions

System Simulator

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(A) Changes from Version V2.40 to V2.52

(1) Windows XP is now supported.

(2) Windows 95 is no longer supported in V2.52 or later.

(3) Modification of 'right-mouse-click' menu.

(4) The display file save/restore function has been separated into a display file and an environment file.

(5) The start frame of a function in the trace window has been changed to improve the display.

(6) Improvement of variable display selection.

(7) The Help menu has been changed to HTML-format help.

(B)   Cautions on Installation

(1) A product ID is required to install SM78K0 V2.52. The product ID is shown on the medium case.

(2) Because is may necessary to restart the computer after installation, terminate all other applications.

(3) Administrator rights are required for installation in Windows NT, Windows 2000, or Windows XP.

(4) Do not install the tool in directory with a name containing a space or a multi-byte character; otherwise the tool may not be correctly executed.

(5) To re-install the SM78K0 V2.52, uninstall the copy of SM78K0 V2.52 already installed. If the product is installed in a different directory without uninstalling the first copy of SM78K0 V2.52, the first copy of SM78K0 V2.52 cannot be uninstalled.

(6) The following directory will be created during the installation. The content of the directory is necessary for uninstalling the tool and must not be deleted: C:\NECTools32\SETUP\
(The installation destination is assumed to be C:\NECTools32.)

(7) The help is supplied in HTML help format If the help does not operate correctly, proceed as follows: Install Microsoft Internet Explorer 5.0 or later (IE5.5 SP2 or later recommended)

(8) The font setting in the Internet Explorer affects the font size of the help menu. If the display is too large in the default size ("Medium") of the Internet Explorer, change the font size to "Smallest" in [Fonts] from the [View] menu and restart the online help.

(C) General Cautions (Debugger Block)

(1) The cursor in the ASCII display area does not follow changes in the display address on the memory window

(2) When the SFR names in several lines are selected in the SFR Select dialog box, the order of the selected SFR names cannot be changed. As a workaround select the lines one by one and change the SFR display order.

(3) Up to 10,000 lines can be displayed in the Watch window. If number exceeds 10,000 an error message will be displayed.

(4) Up to 65535 lines can be displayed in a C Source file. If the number exceeds 65535, please divide the source file.

(5) If an application is switched for any reason while an event icon is being dragged, the icon cannot be dropped. In such a case, release the drag status using the ESC key.

(D) General Cautions (Simulator Block)

(1) The Input Timing Chart Editor window and the 0/1 Editor Window can only be expanded up to a horizontal width of 1040 dots because the buffer size is limited.

(2) If the screen in which ANI pins are displayed at the beginning is set on the input timing chart or the output timing chart, the pins set as #47 and #48 may or may not displayed depending on the size. They are correctly displayed if the screen is re-sized.

(3) Only the representative interrupt name of interrupts having the same vectored interrupt address is displayed on the Interrupt drop down list of the SFR Event & Action setting window or Output Timing Chart window.

(4) Do not use the data search function of the Input 170 editor and the I/O Timing Chart because its search performance is poor.

(5) Even if a customized component is moved to the I/O panel window, it is displayed at the position before it was moved if it is subsequently reloaded by the project file or the custom menu of the I/O panel

(6) The interrupt name selection list of the internal interrupt button displays only the representative interrupt names of the interrupts having the same vector address.

(7) If a scroll-bar level gauge is connected to two or more AD pins or if these pins are reconnected to a dial level gauge or vice versa, the array of level gauges change/overlap then.

(8) The default value of a pin when a button is connected is '0' for both the active-high and the active-low models. As a workaround set Hi -> 0 and Lo -> 1 using the pull-up/pull-down function of an external part.

(9) When using Windows 2000, if right mouse button is clicked once to fix a level gauge value of the external parts, the value is not fixed but a pull-down menu is displayed. But the value will still be set.

(E) Table of Operating Precautions (Debugger Block)

No.	Outline	DSWIN-CDR-78K0 ✗: Applicable ✓: Not applicable ✓ (*): Included in user' manual - : Not checked				
		Version	2.11	2.30	2.40	2.52
A1	Mask value cannot be set in the Event dialog box		✗	✓	✓	✓
A2	A wrong error message is displayed in the Symbol to Address dialog box		✗	✗	✗	✓
A3	No error message is displayed in the Source Move dialog box, if an input value is illegal		✗	✓	✓	✓
A4	Problem in trace search		✗	✓	✓	✓
A5	Maximum address '0xFFFF' isn't displayed in Assembler window		✗	✗	✗	✓ (*)
A6	'Coverage' on the [Option] menu stays valid		✗	✓	✓	✓
A7	Pointer members cannot be displayed in Watch window		✗	✗	✗	✓ (*)
A8	Display problem in Source window if mixed mode is selected		✗	✗	✗	✓ (*)
A9	A part of the Status isn't displayed, if a screen-resolution less than 800X600 is used		✗	✓	✓	✓
A10	Memory Compare Result dialog box cannot be closed the return key		✗	✓	✓	✓
A11	Add Link Button enabled when Event Link dialog box is opened		✗	✓	✓	✓
A12	Error message is displayed twice during program execution		✗	✓	✓	✓
A13	Error message in illegal area is included in the Memory Compare Dialog Box		✗	✓	✓	✓
A14	No error message if old project file is ignored after loading		✗	✓	✓	✓
A15	Illegal data is saved, when display file is saved in Watch window		✗	✓	✓	✓
A16	Object file is loaded although it is specified to load only symbol information		✗	✓	✓	✓
A17	Character per line limitation in source window		✗	✗	✗	✓ (*)
A18	Breakpoint to the same address as the defined symbol value cannot be set		✗	✗	✗	✓
A19	Wrong display of pointer variable of type void		✗	✓	✓	✓
A20	Error occurs if a load module is loaded again		✗	✓	✓	✓
A21	The display may become illegible if the right/left arrow key is used for scrolling		✗	✗	✗	✓
A22	Breakpoints cannot be set in source files containing '-' or '+' in file name.		✗	✗	✗	✗

No.	Outline	DSWIN-CDR-78K0 ✕: Applicable ✓: Not applicable ✓ (*): Included in user' manual - : Not checked				
		Version	**2.11**	**2.30**	**2.40**	**2.52**	
A23	Abnormal debugger termination		**-**	✕	✕	✓	
A24	Last line of Coverage-Efficiency View dialog box is not displayed		✕	✕	✕	✕	
A25	Search file function cannot be used in Source Search dialog box		✕	✕	✕	✓	
A26	Display in Watch or Local Window of an array used as function argument is incorrect		✕	✕	✕	✓	
A27	Files with same name, but located in different folders are not displayed in Source window		✕	✕	✕	✓ (*)	
A28	Dummy real-time RAM monitor function is disabled in the SFR area		✕	✕	✕	✓	
A29	Symbols in func#var format cannot be converted into addresses		✕	✕	✕	✕	
A30	LMF file generated by IAR Systems tools and using only absolute segments cannot be read		✕	✓	✓	✓	
A31	Debugger doesn't stop		✕	✕	✕	✕	
A32	'*' display of EEPROM memory area at run-time		✕	✓	✓	✓	
A33	Bit-variables cannot be modified in Watch window		✕	✓	✕	✓	
A34	Wrong display of Bit-variables in Watch window		✕	✕	✕	✕	
A35	Source line information of assembler module missing		✕	✕	✕	✕	
A36	Read-only project file can be overwritten		-	-	✕	✕	
A37	Help does not open in Trace Window if F1 key is pressed		-	-	✕	✕	
A38	Problem in changing file type to ".hex"		-	-	✕	✕	
A39	Problem in Redraw		-	-	✕	✕	
A40	Modification of address of a label to be snapped in not reflected in the snapshot execution		-	-	✕	✕	
A41	Asterisk (*) indicating a break-settable line is not displayed in source window		-	-	✕	✓	
A42	Problem in saving a display file in watch window		-	-	✕	✓	
A43	Source Window doesn't open automatically or Source Window is empty		-	✓	✓	✕	
A44	Wrong Warning Message after download of LNK-file or opening of a project file		-	✓	✓	✕	

No.	Outline	DSWIN-CDR-78K0 ✖: Applicable ✓: Not applicable ✓ (*): Included in user' manual - : Not checked				
		Version	**2.11**	**2.30**	**2.40**	**2.52**	
A45	Problem while single stepping into function called via function pointer		-	-	✖	✖	
A46	Single step problem with IAR Systems some library functions		-	-	✖	✖	
A47	Display problem in second Source Window if C- code is included		-	-	✖	✖	

(F) Table of Operating Precautions (Simulator Block)

No.	Outline	DSWIN-CDR-78K0 ✕: Applicable ✓: Not applicable ✓ (*): Included in user' manual - : Not checked				
		Version	**2.11**	**2.30**	**2.40**	**2.52**	
B1	The data creation function of the input 0/1 editor and input timing chart isn't supported	✕	✕	✕	✓ (*)	
B2	IIC arbitration function not supported	✕	✕	✕	✕	
B3	Key return function not supported (µPD780831, µPD780833)	✕	✓	✓	✓	
B4	Bit shift detection function of SIO1 (3-wire,auto. transfer function) not supported	✕	✕	✕	✕	
B5	1-bit shift of output function of meter controller not supported	✕	✕	✕	✕	
B6	IEBUS function not supported	✕	✕	✕	✕	
B7	Oscillation clock selection function by SFR is not supported (µPD78035x/034x Sub-series)	✕	✕	✕	✕	
B8	ROM correction function not supported	✕	✕	✕	✕	
B9	TAB key operation doesn't work in Event and Action dialog box	✕	✕	✕	✓ (*)	
B10	SFR name in Event & Action dialog box differs from the actual device	✕	✓	✓	✓	
B11	Interrupt is not displayed in timing chart	✕	✕	✕	✕	
B12	Wrong ADCR0, ADCR1 access	✕	✕	✕	✕	
B13	The time of the timer operating with the subclock may be wrong	✕	✕	✕	✕	
B14	Segment displayed in FIP0 is shifted	✕	✓	✓	✓	
B15	Scroll bar is not displayed in I/O Panel window	✕	✕	✕	✕	
B16	Scroll bar is not displayed in Key Matrix Pin dialog box	✕	✓	✓	✓	
B17	Problem in system menu of I/O Panel window (only Windows NT)	✕	✕	✕	✕	
B18	I/O panel can not be restored after minimizing it	✕	✕	✕	✕	
B19	Key return interrupt does not occur (µPD78003x/002x/083x Sub-series)	✕	✓	✓	✓	
B20	Error message when trace size is changed	✕	✓	✓	✓	
B21	Set value for level gauge cannot be input immediately after reset	✕	✓	✓	✓	

No.	Outline	DSWIN-CDR-78K0 ✗: Applicable ✓: Not applicable ✓ (*): Included in user' manual - : Not checked				
		Version	2.11	2.30	2.40	2.52	
B22	Output from port 4 is not possible (only µPD7801x/00x/000x/05x/005x/07x and 7809x Sub-series)		✗	✓	✓	✓	
B23	Simulator inadvertently loops due to real-time monitor function		✗	✓	✓	✓	
B24	Real-time RAM monitor does not function after reading a project file		✗	✓	✓	✓	
B25	Error message at step execution of infinite loop		✗	✓	✓	✓	
B26	Input of port P5 and P6 does not operate (µPD780233)		✗	✓	✓	✓	
B27	Trace information of SET1 and CLR1 instruction missing		✗	✓	✓	✓	
B28	Watch Timer interrupt does not occur (µPD78000x/005x/00x/01x/020x/02x/04x/05x/06x/07x/08x and 09x Sub-series)		✗	✓	✓	✓	
B29	LIN Function of UART6 is not supported		-	-	✗	✗	
B30	Ring-OSC clock not supported		-	-	✗	✗	
B31	Clock monitor not supported		-	-	✗	✗	
B32	Power-on clear not supported		-	-	✗	✗	
B33	Low-voltage detection circuit (LVI) not supported		-	-	✗	✗	
B34	Incorrect hold time of I/O panel button / key matrix		-	-	✗	✓	
B35	Illegal interrupt in serial interface CSIA0 (µPD780148 Subseries)		-	-	✗	✓	
B36	Illegal interrupt in 8-bit timer TMH1 (µPD780114, µPD780124, µPD780138, µPD780148 Subseries)		-	-	✗	✓	
B37	P14 cannot be used as output port (µPD780103, µPD780114, µPD780124, µPD780138, µPD780148 Subseries)		-	-	✗	✓	
B38	Inverted output is not possible in UART6		-	-	✗	✓	
B39	Waveform is distorted when TM34 is used in carrier generator mode		-	-	✗	✓	
B40	High level is output from pin when UART0 operation is stopped		-	-	✗	✓	
B41	On-chip pull-up resistor cannot be connected to P4 (µPD780138, µPD780148 Subseries)		-	-	✗	✓	

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No.	Outline	DSWIN-CDR-78K0 ×: Applicable ✓: Not applicable ✓ (*): Included in user' manual - : Not checked					
		Version	**2.11**	**2.30**	**2.40**	**2.52**	
B42	Read-only bit NRZ1 of TMCYC1 register of 8-bit timer TMH1 can be written (µPD780114, µPD780124, µPD780138, µPD780148 Subseries)		-	-	✗	✓	

(G) Description of Operating Precautions (Debugger Block)

No. A1	Mask value cannot be set in the Event dialog box
	Details A mask value cannot be set in a specified range of the address setting area in the Event dialog box. Even if a mask value is set, however, no error or warning message is displayed. An event is set ignoring the mask *Workaround(s)* • - none-

No. A2	A wrong error message is displayed in the Symbol to Address dialog box
	Details If an SFR bit is specified in the Symbol to Address dialog box, a wrong error message is displayed: "F002(f), illegal expression". *Workaround(s)* • Check the address of an SFR bit a map file Comment(s): • Regard this as usage restriction.

No. A3	No error message is displayed in the Source Move dialog box, if an input value is illegal
	Details If the numeric value of a line number in the Source Move Dialog Box is illegal or omitted, no error message is displayed and the cursor moves to the first line. In addition, even if the line number is greater than the file line number, neither an error message is displayed nor does the cursor move. *Workaround(s)* • - none-

No. A4	Problem in trace search
	Details If the cursor is placed after the end frame and the rest of a specified range is searched forward during a trace search, the trace result is not searched from the end frame, but an error message is displayed. Similarly, if the cursor is placed before the first frame and the rest of the specified range is searched backwards an error message is displayed: "F003(W): Already exceed search region" *Workaround(s)* • Place cursor within the search range

No. A5	Maximum address '0xFFFF' isn't displayed in Assembler window
	Details The maximum address '0xFFFF' of the Assemble window is not displayed *Workaround(s)* • - none- *Comment(s):* • This is no problem because '0xFFFF' is in the SFR area. Regard this as usage restriction.

No. A6	'Coverage' on the [Option] menu stays valid
	Details 'Coverage' on the [Option] menu stays valid even during program execution. Nothing can be set even if selected. *Workaround(s)* • - none-

No. A7	**Pointer members cannot be displayed in Watch window**
	Details Even if the members of pointers such as structures and arrays are displayed and saved to the project file, the members are not displayed in the Watch window when the project file is loaded. At this time, the display radix of each member is not displayed. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. A8	**Display problem in Source window if mixed mode is selected**
	Details If mixed display mode is selected for the Source window at the cursor is scrolled downward a redundant scroll occurs. As a result, the displayed line numbers may not be sequential. While the end of the source file is displayed, the last part cannot be displayed unless scroll is used during mixed display *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. A9	**A part of the Status isn't displayed, if a screen-resolution less than 800X600 is used**
	Details A part of the Status line is not displayed, if a screen resolution less 800x600 pixel is used *Workaround(s)* • - none-

No. A10	Memory Compare Result dialog box cannot be closed the return key
	Details The Memory Compare Result dialog box cannot be closed with the return key even if the default button is 'Close' *Workaround(s)* • Close the dialog box using the mouse

No. A11	Add Link Button enabled when Event Link dialog box is opened
	Details The Add Link button is disabled when the Trace dialog box is opened, but enabled when the Event Link dialog box is opened. But the Add Link button should be disabled, because an event link cannot be used in the Trace dialog box *Workaround(s)* • - none-

No. A12	Error message is displayed twice during program execution
	Details If the Timer dialog boy is opened during program execution, the error message '0302(F): User program is being traced' is displayed twice *Workaround(s)* • Read the message as 'User program is running'

No. A13	Error message in illegal area is included in the Memory Compare Dialog Box
	Details If an illegal area (guard area or area that cannot be mapped) is included in the comparison source address range or destination address range in the Memory Compare dialog box, the error message 'F201(f), Memory mapping error' is displayed. If the OK button is clicked, the Memory Compare dialog box disappears. *Workaround(s)* • Do not include an illegal area

No. A14	No error message if old project file is ignored after loading
	Details If a project file created with SM78K0 V2.10 or earlier is loaded, no error message is displayed am the file is ignored. *Workaround(s)* • Create a new project file with version V2.10.

No. A15	**Illegal data is saved, when display file is saved in Watch window**
	Details When the display content of the Watch Window is saved to a file, the variable values that are not displayed in the window will be save incorrectly *Workaround(s)* • Before saving the display file, scroll the Watch window and display all the variables in the window once.

No. A16	**Object file is loaded although it is specified to load only symbol information**
	Details The object is also loaded if an Intel-HEX file is specified and it is specified to load only symbol information in the Download dialog box. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. A17	**Character per line limitation in source window**
	Details The number of characters that can be used per line in the Source window, Assemble or watch-related windows is up to 319 (199 in V2.11). The 320th (200th in V2.11) an subsequent characters are not displayed *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. A18	Breakpoint to the same address as the defined symbol value cannot be set
	Details If valid EQU symbols are defined only in an assembler source file, a breakpoint to the same address as the defined symbol cannot be set *Workaround(s)* • Define EQU symbols in a header file so that all the assembler source files can reference them. *Comment(s):* • Regard this as usage restriction.

No. A19	Wrong display of pointer variable of type void
	Details A pointer variable value of type void cannot be displayed correctly in the Variable Window *Workaround(s)* • - none-

No. A20	Error occurs if a load module is loaded again
	Details An error occurs if a load module that is read by a project file is downloaded again from the file list on the [File] menu immediately after the project is read *Workaround(s)* • Reading a project file downloads a load module. To read the load module again either use the [File] -> [Download] menu or read the same project file again.

No. A21	The display may become illegible if the right/left arrow key is used for scrolling
	Details When there is insufficient space in the data value display setting area (in the SFR or Register window, etc.) and the right/left arrow key is used to scroll the area, the display in the data value display/setting area may become illegible. *Workaround(s)* • Expand the size of the window before operating. *Comment(s):* • Regard this as usage restriction.

No. A22	Breakpoints cannot be set in source files containing '-' or '+' in file name.
	Details If a source file name includes a '-' (minus) or a '+' (plus), a break point cannot be set in the debugger. *Workaround(s)* • Change the file name so that it does not include a '-' (minus) or a '+' (plus). *Comment(s):* • Regard this as usage restriction.

No. A23	Abnormal debugger termination
	Details If there is a script file with the same name as the load module to be downloaded and with the extension '.tcl', the script will be automatically executed immediately before the download. If the program to download the load module is written in a script, the download loops an the debugger is abnormally terminated *Workaround(s)* Change the script file to one that does not have the same name as the load module file name, if the script should not automatically be executed immediately before the download. In addition, do not write the instruction to download the load module to the script file that should automatically be executed immediately before the download. *Comment(s):* • Regard this as usage restriction.

No. A24	Last line of Coverage-Efficiency View dialog box is not displayed
	Details The last line is not displayed in the Coverage-Efficiency View dialog box. The last line is hidden behind the horizontal scroll bar when an item consisting of 21 characters or more is included and the total number of items exceeds 12 in the survey list. *Workaround(s)* • Add one ore more dummy items at the end of the list. *Comment(s):* • Regard this as usage restriction.

No. A25	Search file function cannot be used in Source Search dialog box
	Details The search function cannot be used in the Source Search dialog box *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. A26	Display in Watch or Local Window of an array used as function argument is incorrect
	Details When an attempt is made to reference the contents of an array from the Watch or Local Window when an array is declared as function argument, the displayed memory location is incorrect. *Workaround(s)* • When referencing an array variable as a function argument, do not declare the array as the argument. Instead declare a pointer and make a pointer access. *Comment(s):* • Regard this as usage restriction.

No. A27	Files with same name, but located in different folders are not displayed in Source window

	Details
	The source file in the folder set in the source path under [Option] -> [Debugger Option] is opened by priority in the Source Window.
	C:\TEST\TEST.C <- source file of C:\TEST\TEST.LMF
	C:\TEST\TEST.LMF
	
	D:\TEST\TEST.C <- source file of D:\TEST\TEST.LMF
	D:\TEST\TEST.LMF
	
	C:\TEST\ is set in the source path under [Option] -> [Debugger Option]
	At this time C:\TEST\TEST.LMF is displayed even if D:\TEST\TEST.LMF is opened from [File] -> [Download] menu.
	
	Workaround(s)
	   • - none-
	
	Comment(s):
	   • Regard this as usage restriction.

No. A28	Dummy real-time RAM monitor function is disabled in the SFR area

	Details
	Dummy real-time RAM monitor function is disabled in the SFR area.
	
	Workaround(s)
	   • - none-
	
	Comment(s):
	   • Regard this as usage restriction.

No. A29	Symbols in func#var format cannot be converted into addresses

	Details
	Symbols in func#var (func: function name, var: variable name) format cannot be converted into addresses
	
	Workaround(s)
	   • Convert the variable. When there is a variable with the same name as a static variable in a function, convert the variable when the program counter exists in that function.
	
	Comment(s):
	   • Regard this as usage restriction.

No. A30	LMF file generated by IAR Systems tools and using only absolute segments cannot be read
	Details The LMF file generated by IAR Systems tools and using only absolute segments cannot be read. *Workaround(s)* • Use relative segments and define the physical address in the linker control file.

No. A31	Debugger doesn't stop
	Details When [Run] ->[Slowmotion] is selected while Go & Go is under execution, the program does not stop even if [Run] -> [Stop] is selected or the stop button is clicked. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. A32	'*' display of EEPROM memory area at run-time
	Details '*' (Asterisks) are displayed in the EEPROM memory area at run-time. *Workaround(s)* • - none-

No. A33	Bit-variables cannot be modified in Watch window
	Details Bit-variables located in the address area 0xFEFC to 0xFEFF can't be modified in the Watch window. *Workaround(s)* • Modify the bit-variables in the Memory window

No. A34	Wrong display of Bit-variables in Watch window
	Details Wrong display of Bit-variables in Watch window, if the bits are defined in an IAR Systems Assembler module. *Workaround(s)* • Define the bits in a C Module and declare the bits as extern in the assembler module.

No. A35	Source line information of assembler module missing
	Details If two assembler modules are existing in one IAR assembler source file, some parts of the source line information for the second module is missing. Single step through the second module is possible, but a break point cannot be set (no * in the source lines). *Workaround(s)* • Define only one assembler module in a source file. *Comment(s):* • Regard this as usage restriction.

No. A36	Read-only project file can be overwritten
	Details Project Files (*.prj, *.pri) can be overwritten depending on the OS even if the file attribute is set to read-only. In Windows XP an error is displayed when attempting to overwrite the file, but the file can be overwritten in Windows 2000. *Workaround(s)* • - none-

No. A37	Help does not open in Trace Window if F1 key is pressed
	Details The help window is not displayed when the F1 key is pressed while no trace result is displayed, such as immediately after the start of the debugger. This is because the help window can be opened by F1 key only in the window on which the caret is placed, and the caret cannot be moved if there are no trace results. *Workaround(s)* • Open the help window by selecting [Current Window Help] under the Help menu.

No. A38	Problem in changing file type to ".hex"
	Details Even if the display of the extension select area is changed by specifying the file type as "*.hex" in the file selection area in a file selection boy, the change is not reflected internally. *Workaround(s)* • Specify the file type in the extension select area.

No. A39	Problem in Redraw
	Details If the caret is moved when the Memory window or Coverage window is activated, the line on which the caret was placed cannot be redraw normally. *Workaround(s)* • Redraw can be performed by moving the caret to a line on which redraw was not performed. *Comment(s):* • Regard this as usage restriction.

No. A40	Modification of address of a label to be snapped in not reflected in the snapshot execution
	Details When a label is specified for a memory address subject to snap in the Snap Shot dialog box, the address before modification is snapped, if the address of the registered label is changed in line with a user program modification. *Workaround(s)* • When the address of the registered label is changed, re-register the snap information using the change button.

No. A41	Asterisk (*) indicating a break-settable line is not displayed in Source window
	Details An asterisk (*) indicating a break-settable line is not displayed in the Source window when only a macro (instruction) reference line is described in an include file and the line number is the same as the instruction start line in the file to be included. *Workaround(s)* - none -

No. A42	Problem in saving a display file in watch window
	Details If data is added to the Watch Window by specifying the address, the data cannot be saved correctly even if the display file saving command is executed. *Workaround(s)* - none -

No. A43	Source Window doesn't open automatically or Source Window is empty
	Details The source window doesn't open automatically after a download of an LNK file or the source window is empty after the opening of a project file although the debugger option setting of the compiler and linker is correct. *Workaround(s)* Modify the Begin- and End- Label of the Startup Module in the Debugger Option Window [menu Options-> Debugger Option]. This setting is stored in the project file, so that this modification must be done only once.

No. A44	Wrong Warning Message after download of LNK-file or opening of a project file
	Details After the download of an LNK-file or the opening of a project file the following warning is displayed: Wc01d: Selected load module different from kind(Chip) that was loaded This warning message is wrong and can be ignored. *Workaround(s)* - none -

No. A45	Problem while single stepping into function called via function pointer
	Details If a function is called via function pointer the single step in doesn't work correct, a step over is executed instead. *Workaround(s)* Set a breakpoint at the beginning of the function to enter it.

No. A46	Single step problem with IAR Systems some library functions

Details
The single step doesn't work with some IAR Systems library functions (only compiler version V3.34b). The debugger doesn't stop at the next instruction, but goes into run-mode and must be stopped manually. Existing breakpoints are ignored.

The issue occurs at the following functions for stack-, wrkseg- operations, and switch statement:

LOAD_A_SP_L06	STORE_A_SP_L06	LOAD_AX_SP_L06
STORE_AX_SP_L06	LOAD_AXBC_SP_L06	STORE_AXBC_SP_L06
XLOAD_A_SP_L06	XSTORE_A_SP_L06	XLOAD_AX_SP_L06
?XSTORE_AX_SP_L06	XLOAD_AXBC_SP_L06	XSTORE_AXBC_SP_L06
FUNC_ENTER_L06	FUNC_DEALL_L06	FUNC_LEAVE_L06
MOVE_LONG_L06	IND_CALL_L06	POPB_L_L06
L_F_OPASG_L06	L_F_DEALLOC_L06	L_F_DEALLOC_STAT_L06

WRKSEG_PUSH_L09   WRKSEG_POP_L09

C_SSWITCH_L10	I_SSWITCH_L10	L_SSWITCH_L10
C_VSWITCH_L10	I_VSWITCH_L10	

Workaround(s)
- none -

No. A47	Display problem in second Source Window if C- code is included

Details
If C code is included by the #include <name.c> the debug information for the included c-code may be invalid. This causes some display problems in a second (or higher) source window).

Workaround(s)
- Open only one Source Window.
- Don't include C code, but use different source modules.

(H) Description of Operating Precautions (Simulator Block)

No. B1	The data creation function of the input 0/1 editor and input timing chart is not supported
	Details The data creation function of the input 0/1 editor and input timing chart is not supported *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B2	IIC arbitration function not supported
	Details The IIC arbitration function is not supported. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B3	Key return function not supported (µPD780831, µPD780833)
	Details The key return function is not supported. *Workaround(s)* • - none-

No. B4	Bit shift detection function of SIO1 (3-wire,auto. transfer function) not supported
	Details The bit shift detection function of SIO1 (3-wire, auto. transfer function) is not supported. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B5	1-bit shift of output function of meter controller not supported
	Details The 1-bit shift of output function of meter controller is not supported. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B6	IEBUS function not supported
	Details The IEBUS function is not supported. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B7	Oscillation clock selection function by SFR not supported (µPD78035x/034x Sub-series)
	Details The oscillation clock selection function by SFR is not supported (µPD78035x/034x Sub-series). *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B8	ROM correction function not supported
	Details The ROM correction function is not supported. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B9	TAB key operation doesn't work in Event and Action dialog box
	Details The function to jump to the next input field by pressing TAB key cannot be used in the Event and Action dialog box. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B10	SFR name in Event & Action dialog box differs from the actual device
	Details The following SFR name in the Event & Action dialog box differs from the SFR name of the actual device. 　　　Device name: µPD78097X 　　　SFR name on Event & Action dialog box: SIO3, CSIM3 　　　SFR name on actual device: SIO, CSIM *Workaround(s)* • - none-

No. B11	Interrupt is not displayed in timing chart
	Details If an interrupt occurs from the interrupt controller peripheral unit when execution of one instruction has been completed, the interrupt signal information is not displayed on the timing chart. In addition, if two or more non-maskable interrupts having a separate vector address at the same time (multiple interrupts), only one interrupt can be acknowledged. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B12	Wrong ADCR0, ADCR1 access
	Details If conversion is completed by ADCLT0 while a read operation is being executed by the instruction of the ADCR0 register, the value of ADCR0 should be changed after reading ADCR0 according to the specifications. Actually, however, the updated value is read. If a write access to the ADCR0 register, a write access to the ADM0 register by command and a write access to the ADS0 register conflict with each other, the write access to the ADCR0 register is enabled if the conversion operation is enabled and an interrupt signal (INTAD) is generated. This behavior also applies to the ADS1 register. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B13	The time of the timer operating with the subclock may be wrong
	Details The time of the timer operating with the subclock may be wrong: Example: <1> Specification: 500.0 ms, SM 498.0736ms <1> Specification: 15.6 ms, SM 15.5652ms *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B14	Segment displayed in FIP0 is shifted
	Details The segment displayed in FIP0 is shifted. *Workaround(s)* • - none-

No. B15	Scroll bar is not displayed in I/O Panel window
	Details The scroll bar is not displayed in I/O Panel window, if a component is moved to the edge of the I/O panel in the layout mode or if a customized component for the I/O panel is too big to be displayed. *Workaround(s)* • The scroll bar is displayed by re-sizing the I/O Panel window. *Comment(s):* • Regard this as usage restriction.

No. B16	Scroll bar is not displayed in Key Matrix Pin dialog box
	Details The scroll bar is not displayed in the Key Matrix Pin dialog box. *Workaround(s)* • Move the cursor after pin setting.

No. B17	Problem in system menu of I/O Panel window (only Windows NT)
	Details If the simulator is executed in Windows NT, the menu cannot be deleted or recovered using 'Display Menu' on the system menu of the I/O Panel window. *Workaround(s)* • - none- *Comment(s):* • Regard this as usage restriction.

No. B18	I/O panel can not be restored after minimizing it
	Details If the I/O Panel window is minimized in layout mode, it is not restored to its original size even if the icon on the taskbar is clicked. *Workaround(s)* • Right-click the icon and select 'Restore' from the system menu. *Comment(s):* • Regard this as usage restriction.

No. B19	Key return interrupt does not occur (µPD78003x/002x/083x Sub-series)
	Details In the µPD78003x/002x and 083x Sub-series, the key interrupt does not occur if a key input is performed. *Workaround(s)* • - none-

No. B20	Error message when trace size is changed
	Details When the trace size is changed to 3MB or more (varies depending on the PC resources) in the Extended Option dialog box, the error message 'e000(f): Illegal argument' is displayed and trace is turned OFF. *Workaround(s)* • Increase the virtual memory size of the PC.

No. B21	Set value for level gauge cannot be input immediately after reset
	Details Even is a set value for the level gauge of the I/O Panel is input immediately after CPU reset, the value is not correctly reflected in the conversion result. *Workaround(s)* • Set the value for the level gauge after executing one or more instructions following CPU reset

No. B22	Output from port 4 is not possible (µPD7801x/00x/000x/05x/005x/07x and 7809x Sub-series)
	Details In the µPD7801x/00x/000x/05x/005x/07x and 7809x Sub-series output from port 4 is not possible even if port mode setting register PM4 is set to output mode. *Workaround(s)* • -none-

No. B23	Simulator inadvertently loops due to real-time monitor function
	Details When a program is executed for a certain period while the Memory window or Watch window is open, the program may inadvertently loop or an illegal break may occur. In the case of loop, even if the program is stopped using the forced break the message 'User program is running' may be displayed when the program is next executed. *Workaround(s)* • -none-

No. B24	Real-time RAM monitor does not function after reading a project file
	Details The Real-time RAM monitor does not function after reading a project file even if the Memory window is displayed. *Workaround(s)* • -none-

No. B25	Error message at step execution of infinite loop
	Details The error message 'e000(f): Illegal argument' will be displayed when a step execution is performed on one line in for or while statement. In addition the error message'78018f): Cancelled step wait' will also be displayed, but this is just a succession of the not terminated step execution within a certain time period, so it is not a Problem. *Workaround(s)* • -none-

No. B26	Input of port P5 and P6 does not operate (µPD780233)
	Details When a value is externally input to port register P5 (PT5) and P6 (PT6) in the µPD780233 Sub-series, only the value '0' is read. *Workaround(s)* • Use another input port instead.

No. B27	Trace information of SET1 and CLR1 instruction missing
	Details A memory write of the SET1 and CLR1 instructions is traced in the Trace window, but a memory read is not. *Workaround(s)* • -none-

No. B28	Watch Timer interrupt does not occur (µPD78000x/005x/00x/01x/020x/02x/04x/05x/06x/07x/08x and 09x Sub-series)
	Details In µPD78000x/005x/00x/01x/020x/02x/04x/05x/06x/07x/08x and 09x Sub-series the Watch Timer interrupt (INTWT) does not occur when the watch timer is operated. *Workaround(s)* • -none-

No. B29	LIN function of UART6 is not supported
	Details The LIN function of UART6 is not supported. *Workaround(s)* • -none- *Comment(s):* • Regard this as usage restriction.

No. B30	Ring-OSC clock not supported
	Details The Ring-OSC clock not supported and not supplied with the mounted macro. Therefore the operation when the RING-OSC is selected as a count clock is not guaranteed. *Workaround(s)* • -none- *Comment(s):* • Regard this as usage restriction.

No. B31	Clock monitor not supported
	Details The clock monitor not supported. *Workaround(s)* • -none- *Comment(s):* • Regard this as usage restriction.

No. B32	Power-on clear not supported
	Details The Power-on clear function is not supported. *Workaround(s)* • -none- *Comment(s):* • Regard this as usage restriction.

No. B33	Low-voltage detection circuit (LVI) not supported
	Details The Low-voltage detection circuit (LVI) not supported. *Workaround(s)* • -none- *Comment(s):* • Regard this as usage restriction.

No. B34	Incorrect hold time of I/O panel button / key matrix
	Details When the main clock is changed in the Configuration dialog box after the simulator is activated, the hold time of the button / key matrix in the I/O panel is not simulated correctly. The old main clock is used for simulation. *Workaround(s)* • -none-

No. B35	Illegal interrupt in serial interface CSIA0 (µPD780148 Subseries)
	Details When using the µPD780148 Subseries, the interrupt INTACSI occurs each time the last byte is transmitted in repeat transfer mode of serial interface CSIA0. *Workaround(s)* • -none-

No. B36	Illegal interrupt in 8-bit timer TMH1 (µPD780114, µPD780124, µPD780138, µPD780148 Subseries)
	Details When the 8-bit timer TMH1 of µPD780114, µPD780124, µPD780138, or µPD780148 subseries is used in carrier generator mode, the interrupt INTTM51 is generated twice. *Workaround(s)* • -none-

No. B37	P14 cannot be used as output port (µPD780103, µPD780114, µPD780124, µPD780138, µPD780148 Subseries)
	Details P14 cannot be used as output port in the µPD780103, µPD780114, µPD780124, µPD780138, or µPD780148 subseries. *Workaround(s)* • -none-

No. B38	Inverted output is not possible in UART6
	Details Inverted output is not possible in UART6 even if the inverted output is specified for the TCD pin of UART6. *Workaround(s)* • -none-

No. B39	Waveform is distorted when TM34 is used in carrier generator mode
	Details When TM34 is used in carrier generator mode, a waveform may be distorted depending on the setting value of the operating clock. *Workaround(s)* • -none-

No. B40	High level is output from pin when UART0 operation is stopped
	Details When UART0 is stopped, a high level is output from the pin. As a result, the pin cannot be used as a port pin. *Workaround(s)* • -none-

No. B41	On-chip pull-up resistor cannot be connected to P4 (µPD780138, µPD780148 Subseries)
	Details An on-chip pull-up resistor cannot be connected to port P4 in the µPD780138, µPD780148 subseries. *Workaround(s)* • -none-

No. B42	Read-only bit NRZ1 of TMCYC1 register of 8-bit timer TMH1 can be written (µPD780114, µPD780124, µPD780138, µPD780148 Subseries)
	Details When using the µPD780114, µPD780124, µPD780138, or µPD780148 subseries, the read-only bit NRZ1 can be written when TMCYC1 register of 8-bit timer TMH1 is accessed in byte units. *Workaround(s)* • -none-

(I) List of Devices Supported by DSWIN-CDR-78K0

The System Simulator for 78K0 devices does not support all device sub-series. The support status of each sub-series is shown below.

Sub-series		DSWIN-CDR-78K0		✓: supported ✗: not supported		
	Version	2.11	2.30	2.40	2.52	
µPD78001		✓	✓	✓	✓	
µPD780018Y		✗	✗	✗	✗	
µPD78002		✓	✓	✓	✓	
µPD78002Y		✓	✓	✓	✓	
µPD780024		✓	✓	✓	✓	
µPD780024A		✗	✓	✓	✓	
µPD780024AS		✗	✓	✓	✓	
µPD780024AY		✗	✓	✓	✓	
µPD780024Y		✓	✓	✓	✓	
µPD780034		✓	✓	✓	✓	
µPD780034A		✗	✓	✓	✓	
µPD780034AS		✗	✓	✓	✓	
µPD780034AY		✗	✓	✓	✓	
µPD780034Y		✓	✓	✓	✓	
µPD780058		✓	✓	✓	✓	
µPD780058Y		✓	✓	✓	✓	
µPD780065		✗	✓	✓	✓	
µPD780078		✗	✓	✓	✓	
µPD780078Y		✗	✓	✓	✓	
µPD780103		✗	✗	✓	✓	
µPD780114		✗	✗	✓	✓	
µPD780124		✗	✗	✓	✓	
µPD780138		✗	✗	✓	✓	
µPD780148		✗	✗	✓	✓	
µPD78014		✓	✓	✓	✓	
µPD78014Y		✓	✓	✓	✓	
µPD78014H		✓	✓	✓	✓	
µPD78018F		✓	✓	✓	✓	

Sub-series		DSWIN-CDR-78K0		✓: supported		
				✗: not supported		
	Version	2.11	2.30	2.40	2.52	
µPD78018FY		✓	✓	✓	✓	
µPD780208		✓	✓	✓	✓	
µPD780233		✓	✓	✓	✓	
µPD78024		✓	✓	✓	✓	
µPD780308		✓	✓	✓	✓	
µPD780308Y		✓	✓	✓	✓	
µPD780318		✓	✓	✓	✓	
µPD780328		✓	✓	✓	✓	
µPD780338		✓	✓	✓	✓	
µPD780344		✗	✓	✓	✓	
µPD780344Y		✗	✓	✓	✓	
µPD780354		✗	✓	✓	✓	
µPD780354Y		✗	✓	✓	✓	
µPD78044		✓	✓	✓	✓	
µPD78044A		✓	✓	✓	✓	
µPD78044B		✓	✓	✓	✓	
µPD78044F		✓	✓	✓	✓	
µPD78044H		✓	✓	✓	✓	
µPD780001		✓	✓	✓	✓	
µPD78058		✓	✓	✓	✓	
µPD78058Y		✓	✓	✓	✓	
µPD78064		✓	✓	✓	✓	
µPD78064B		✓	✓	✓	✓	
µPD78064Y		✓	✓	✓	✓	
µPD78070A		✓	✓	✓	✓	
µPD78070AY		✓	✓	✓	✓	
µPD780702Y		✗	✗	✗	✗	
µPD78075B		✗	✗	✗	✗	
µPD78078		✓	✓	✓	✓	
µPD78078Y		✓	✓	✓	✓	
µPD78083		✓	✓	✓	✓	

Customer Notification

Sub-series		DSWIN-CDR-78K0 ✓: supported ✗: not supported				
	Version	2.11	2.30	2.40	2.52	
µPD780818		✗	✗	✗	✗	
µPD780822		✗	✗	✗	✗	
µPD780828B		✗	✗	✗	✗	
µPD780831Y		✓	✓	✓	✓	
µPD780833Y		✓	✓	✓	✓	
µPD780852		✗	✗	✗	✗	
µPD780948		✓	✓	✓	✓	
µPD780955		✗	✗	✗	✗	
µPD780958		✗	✗	✗	✗	
µPD780964		✓	✓	✓	✓	
µPD780974		✓	✓	✓	✓	
µPD78098		✓	✓	✓	✓	
µPD78098A		✗	✓	✓	✓	
µPD78098B		✗	✓	✓	✓	
µPD780988		✓	✓	✓	✓	
µPD78P0914		✗	✗	✗	✗	

(J) Valid Specification

Item	Date published	Document No.	Document Title
1	September 2003	U16768EJ1V0UM00	User's Manual System Simulator 78K Series
2	February 2002	U15802EJ1V0UM00	External Part User Open Interface Specification

(K) Revision History

Item	Date published	Document No.	Comment
1	08-07-2002	DTOP0007V10	First release
2	06-12-2002	DTOP0007V11	Update for Version 2.40
3	21-11-2003	DTOP0007V12	Update for Version 2.52
4	27-04-2004	DTOP0007V13	Item A45, A46,A47 added