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Concerned Products: <i>DIWIN-I3HD-NS-784XX and DIWIN-CDR-NS-78K4</i> <i>Integrated Debugger for the IE-78K4-NS In- circuit emulator</i>	Customer Notification	Date: 07 May 2002
		NEC-Electronics (Europe) GmbH LSI & Discrete Business Unit Technical Product Support
	Operating precaution for DIWIN-I3HD-NS-784XX and DIWIN-CDR-NS-78K4	Source Doc: SBG-T-1721 SBG-T-2040 SBG-TT-0065-E
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(A) List of restrictions

No.	Outline	DIWIN-I3HD-NS-784XX And DIWIN-CDR-NS-78K4					
		rev./ version	E1.11f	V2.31			
1	Space outside the IRAM specified as Real-time display is not displayed correctly		☞	✓			
2	External registered variables		☞	✓			
3	Mapped target is no multiple of 8K		☞	✓			
4	Word access from odd addresses		☞	✓			
5	List of unsupported functions		☞	✓			
6	List of restrictions		☞	✓			
7	List of precautions		☞	✓			
8	Precautions related to the installation of the DIWIN-CDR-NS-78K4, V2.31		✓	☞			
9	Restrictions related to the version DIWIN-CDR-NS-78K4, V2.31		✓	☞			

- ✓ : No problem
- ☞ : Restriction (intended to be corrected by version upgrade)
- * : Permanent restriction (restriction, not intended to corrected by version upgrade)

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(B) Description

Bug No.	Outline	Description
1	Space outside the IRAM specified as Real-time display is not displayed correctly	<p><u>Details</u></p> <p>If a space outside the internal RAM space is specified as a real-time display space (Extended Options setting in the Options menu), 00 is displayed instead of the correct value.</p> <p><u>Workaround</u></p> <p>There is no workaround. The restriction will be removed by version upgrade.</p>
2	External registered variables	<p><u>Details</u></p> <p>When registering externally declared variables from a source window, the actual status of a variable declared with an assembler file is displayed with a "?".</p> <p><u>Workaround</u></p> <p>Register the variable from the variable registration dialogue in line with the procedures for assembler variables.</p>
3	Mapped target is no multiple of 8K	<p><u>Details</u></p> <p>The target cannot be mapped to an open region if a size that is not a multiple of 8K is selected when changing the size of the internal ROM.</p> <p><u>Workaround</u></p> <p>There is no workaround. The restriction will be removed by version upgrade.</p>
4	Word access from odd addresses	<p><u>Details</u></p> <p>Word access from odd number addresses is not possible.</p> <p><u>Workaround</u></p> <p>There is no workaround. The restriction will be removed by version upgrade.</p>

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Bug No.	Outline	Description
5	List of unsupported functions	5.1 Setting various events on the keyboard is not possible, a mouse is needed to set an event on the final level. 5.2 Conditional display of trace results. 5.3 Software break. 5.4 Uploading TECHTRONICS format. 5.5 Selection based on function name in the source text display. 5.6 Debugger restart (Item (DEBUGGER) in the reset check dialog).
6	List of restrictions	6.1 Some BUTTONS may not appear in the debugger main window (EVENT DIALOG, EVENT LINK D., BREAK D., TRACE D., SNAPSHOT D., STUB D., TIMER D., COVERAGE EFFICIENCY D., COVERAGE EFFICENIECY INDICATION D.). 6.2 The source file dialog does not return to its default directory when RESET is pressed. 6.3 The loadmodule file (for example .lnk) is locked until CPU and SYMBOL reset is performed. (-> no linking will be possible). 6.4 When WINDOWS runs out of resources, the screen may turn white. 6.5 The description in the TRACE window may sometimes be "????". 6.6 Some dots at the lowest end of windows may not be displayed (STATUS, SOURCE FONT). 6.7 Resetting the symbol when source text window is still open result in the error "b001(F): LM not load". 6.8 A malfunction of the debugger may occur if C-sources are compiled with different C-Compiler versions. 6.9 The error "File format illegal" may occur if the full path of the project file is not specified, when starting up the debugger with a project file. 6.10 The STACK area can be set to other areas than RAM without resulting in an error. 6.11 A previous saved window may be displayed in a location which is not visible when it is opened again. Please close all windows (WINDOW-CLOSE ALL, menu) and reopen them again, when windows do not appear correctly any more. 6.12 It may be necessary to set the end address of a previous set event twice when changing the end address again. 6.13 Using an event name that has already been set, even if it is already deleted may result in an error. 6.14 Changing the RAM-sampling time can only be performed when the program is stopped.

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Bug No.	Outline	Description
6	List of restrictions	6.15 Uploading and downloading during SLOWMOTION may not be possible. 6.16 The "Path count" function may not work correctly during SECTION TRACE. 6.17 The location should not be changed during a debugger session. 6.18 An event for which the access size "Don't care" is specified for odd addresses cannot detect a word access of "odd address -1". 6.19 Double-clicking on the iconized assembly window during program execution after performing "Arrange icons" will result in the icon to be incorrectly altered thus failing to open the assembly window. 6.20 In the file selection area of some dialog boxes, files may be displayed in lowercase and the selected files in uppercase characters. 6.21 In the selection VIEW -> NAME/KIND from the menu bar in the event manager the "√" mark is not displayed. 6.22 The trace display window's view information is not saved in the project file. 6.23 In the window linkage function (WINDOW -> CONNECT -> SOURCE) the source text will be linked even with an invalid fetch. 6.24 When executing steps, the measured timer values are incorrect. 6.25 The access size cannot be specified in the memory mapping.
7	List of precautions	7.1 If a user defined symbol and a language-tool-generated symbol are present at the same address, the user defined symbol may not be displayed in the assembly window. 7.2 When a source file with more than 10000 lines is used, the first digit of the line number may not be displayed. 7.3 When a source file with more than 8192 source lines is used, the debugger may fail to perform debugging. 7.4 Japanese language file names are not supported. 7.5 Neither downloading nor uploading can be cancelled once started. 7.6 Only one event can be specified for 1. PHASE in the event link dialog. If two or more events are set, all conditions are cleared.

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No.	Outline	Description
8.	Precautions related to the installation of the DIWIN-CDR-NS-78K4, V2.31	<p>8.1 Please, install the device drivers before using DIWIN-CDR-NS-78K4 and ensure to use the IE-78K4-NS with the control code "L" or later. It may be necessary to reboot your computer after installation.</p> <p>8.2 Please, do not install the DIWIN-CDR-NS-78K4 (V2.31) in the same directory as the DIWIN-I3HD-NS-784XX (V1.11).</p> <p>8.3 Please, do not change the default directory for the installation of uninstall files [C:\NECTools32\setup*.*) otherwise the uninstall procedure may not work correctly any more.</p> <p>8.4 Please, do not use any "space" inside the directory name for the installation of the DIWIN-CDR-NS-78K4.</p> <p>8.5 The device files should be installed with the "DeviceFile INSTALLER" tool.</p> <p>8.6 PC-9800 series and IBM PC/AT or compatible machines with a Pentium CPU running at 166 MHz or above and a main memory of 64 MB or more. As operating systems Windows 95, Windows 98, Windows 2000, Windows NT 4.0 Service</p>
9	Restrictions related to the version DIWIN-CDR-NS-78K4, V2.31	<p>9.1 If an SFR bit is specified in the Symbol to Address dialog box, an error occurs but the wrong error message "FO02(f), Illegal expression" is output. Please, check the address of an SFR bit with a map file.</p> <p>9.2 The maximum display address "0xFFFF of the Assemble window is not displayed. There is no problem because 0xFFFF is in the SFR area.</p> <p>9.3 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.</p> <p>9.4 If mixed display is set in the Source window and the cursor is scrolled downward (in the direction of the end of the file), a redundant scroll occurs. As a result, the displayed line is displayed, the last part numbers may not be sequential. While the end of the source cannot be displayed unless scroll is used during mixed display.</p> <p>9.5 The number of characters that can be input in a line in the Source window, Assemble window, or watch-related windows is up to 200 (319 in V2.30) . The 201st (320th in V2.30) and subsequent characters are not displayed. This is not applicable for V2.31.</p> <p>9.6 The debugger cannot display a source file that includes a comment starting with a 2-byte character (e.g. Kanji character) at the start line of the assembler source file. This is not applicable for V2.31.</p> <p>9.7 If valid EQU symbols are defined only in an assembler source file, a breakpoint to the same address as the defined symbol value cannot be set. Take workarounds such as defining EQU symbols in a header file so that they can be referenced by all the assembler source files.</p>

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No.	Outline	Description
9	Restrictions related to the version DIWIN-CDR-NS-78K4, V2.31	<p>9.8 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 a project file is read. This is not applicable for V2.31.</p> <p>9.9 When there is insufficient space in the data value display/setting area, the display in the data value display/setting area may become illegible. Please, expand the size of the window before operating.</p> <p>9.10 If a file name that includes a "-" (minus) or "+" (plus) exists in a source file, a break point cannot be set in the debugger.</p> <p>9.11 If there is a script file with the same name as the load module to be downloaded and with the extension ".tcl", the script is automatically executed immediately before downloading. If the program to download the load module is written in a script, the download loops and the debugger is abnormally terminated. Please, change the script file name to one that does not have the same name as a load module file name if the script file should not automatically be executed immediately before downloading. In addition, do not write the instruction to download the load module to the script file that should automatically be executed immediately before downloading.</p> <p>9.12 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. Please, add one or more "dummy" items at the end of the list.</p> <p>9.13 The source files in a folder whose name ends with a 2-byte character may not be displayed in the Source window. This is not applicable for V2.31.</p> <p>9.14 The search file function cannot be used in the Source Search dialog box.</p> <p>9.15 When an attempt is made to reference the contents of an array from the Watch or Local window when an array is declared as a function argument, the incorrect memory location is displayed. Instead, declare a pointer and make a pointer access.</p> <p>9.16 The program in the disassembled program section cannot be edited if the Source window is in mixed display mode. Please, edit in the assemble window.</p> <p>9.17 The source file in the folder set in the source path under [Option] / [Debugger Option] is opened by priority in the Source window.</p> <pre> C:\TEST\TESTC <-- Source file of CATEST\TESTLMF C:\TEST\TESTLMF D:\TEST\TESTC <-- Source file of DATEST\TESTLMF D:\TEST\TESTLMF C:\TEST\ is set in the source path under [Option] / [Debugger Option]. At this time, C:\TEST\TESTLMF is displayed even if D:\TEST\TESTLMF is opened from [File] / [Download]. </pre>

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No.	Outline	Description
9	Restrictions related to the version DIWIN-CDR-NS-78K4, V2.31	<p>9.18 Dummy RRM (Real-time RAM Monitor function) is disabled in the SFR area.</p> <p>9.19 If the memory search target address is in a non-mapped area or SFR area, the memory search is aborted. Please, ensure that the search range is not in a non-mapped area or SFR area.</p> <p>9.20 Symbols with a func#var (func: Function name, var: Variable name) format cannot be converted into addresses.</p> <p>9.21 Target mapping can be executed even if the target memory does not actually exist (incl. power is off). This is not applicable for V2.31.</p> <p>9.22 The LMF file created in the IAR's compiler or assembler may not be able to be read. This is not applicable for V2.31.</p> <p>9.23 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).</p> <p>9.24 When the contents of the display in the Watch window are saved, the value of a variable that has not been displayed on the screen may not be saved correctly. This is not applicable for V2.31.</p> <p>9.25 The display of the Memory window that is displaying the peripheral RAM area is displayed as "00" during emulation.). This is not applicable for V2.31.</p> <p>9.26 When the 78K/IV CPU is operated in high-speed fetch mode (MSB of the MM register = 1), the pre-set software break does not take effect, and an illegal CALLT instruction is executed instead, causing an inadvertent emulation program loop. The software break is valid when the CPU is operated in normal fetch mode. This is not applicable for V2.31 in combination with IE-78K4-NS with control code "L".</p> <p>9.27 The CALLT address in the Extended Option dialog box of the 78/IV Series will not be used. Instead, address 0x40 is always used. This is not applicable for V2.31.</p> <p>9.28 Manipulation instructions for bit symbols SCL and SDA (ex. Set1 SCL) result in an error. Use P3.2 and P3.3 instead of SCL and SDA.</p> <p>9.29 The Long variable assigned to a register cannot be displayed nor changed in the Watch window or Local Variable window. All the contents are displayed as " ? ". This is not applicable for V2.31.</p> <p>9.30 When a local variable is registered in the Watch window and the valid area (within the scope) of the registered variable is executed, the registered variable display may remain grey and the valid display (display in black) may not be output. In addition, when variables whose count exceeds the size of the Watch window are registered immediately after the project file is read, the variable display may remain grey and the valid display (display in black) may not be output even if the window is scrolled.</p>

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(C) History List

Revision	Part	Item	Modification
1 st revision	A	5	Added item related to the List of unsupported functions
		6	Added item related to the List of restrictions
		7	Added item related to the List of precautions
	B	5	Added item related to the List of unsupported functions
		6	Added item related to the List of restrictions
		7	Added item related to the List of precautions
2 nd revision	A	8	Added item related to the Precautions of the installation
		9	Added item related to the Restrictions related to the new revision
	B	8	Added item related to the Precautions of the installation
		9	Added item related to the Restrictions related to the new revision
3 rd revision	A	8	Change name from DIWIN-CDR-NS-784XX to DIWIN-CDR-NS-78K4
		9	Change name from DIWIN-CDR-NS-784XX to DIWIN-CDR-NS-78K4
	B	8	Change name from DIWIN-CDR-NS-784XX to DIWIN-CDR-NS-78K4
		9	Change name from DIWIN-CDR-NS-784XX to DIWIN-CDR-NS-78K4