

CUSTOMER NOTIFICATION

SUD-DT-03-0532-E

December 4, 2003

Koji Nishibayashi, Senior System Integrator
Microcomputer Group
2nd Solutions Division
Solutions Operations Unit
NEC Electronics Corporation

CP(K), O

V850E/ME2 Device File

DF703111 (V1.30)

User's Manual

[Supported machines/OS]

PC-9800 Series (Windows™ Based)

IBM PC/AT Compatibles (Windows™ Based)

Be sure to read this document before using the product.

CONTENTS

1. OUTLINE.....	3
2. CONTENTS OF PACKAGE.....	3
3. USER ENVIRONMENT.....	3
4. CORRESPONDING VERSIONS OF DEVELOPMENT TOOLS.....	4
5. INSTALLATION.....	4
6. USAGE.....	5
7. RELATED DOCUMENTS	5
8. REVISION HISTORY	5

1. OUTLINE

A device file is a binary file that contains device-dependent information and is prepared for each device model or for each product in the same series.

Device files are commonly used with development tools (such as compilers and debuggers). Employing device files enables generation and debugging of device-unique codes. In addition, when developing applications, device files enable the SFR names unique to the device being used to can be used for programming.

The DF703111 contains device files necessary for developing applications using the V850 Series V850E/ME2.

2. CONTENTS OF PACKAGE

The device files included in this product and the corresponding devices are as follows.

Table 2-1. Contents of Package

Types	Device File Name	Corresponding Device Name	Model Specification Name	Version
Device file	D3111.800	μ PD703111	3111	V1.30

The "model specification name" is used as the character string specified with the CA850 compile option "-cpu", the "#pragma cpu directive" in source programs, and the ".option directive". Use lowercase letters for specification.

3. USER ENVIRONMENT

Like development tools, device files are available for Windows.

User environment for device files is as follows.

Machine	Operating System
PC-9800 series, IBM PC/AT compatible machines	Windows 98 Windows NT 4.0 Windows 2000 Windows Me Windows XP

Windows and Windows NT are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

PC/AT is a trademark of International Business Machines Corporation.

4. CORRESPONDING VERSIONS OF DEVELOPMENT TOOLS

The corresponding versions of the DF703111 and V850 Series development tools made by NEC Electronics are shown below. Use these tools in the following combinations.

Tool Used	Version of Corresponding Tool
C compiler package CA850	V2.60 or later
Integrated debugger ID850NW	V2.52 or later
Integrated debugger ID850NWC	V2.52 or later

5. INSTALLATION

Device files are included on one floppy disk. Use the device file installer (DFINST) included in the NEC Electronics development tools (CA850, ID850NW, ID850NWC) to install the device file.

Note A self-extraction file (an execution file) is downloaded along with device files with ODS (on-line delivery service). If this file is executed, a disk image is created. Copy this to hard disk or to a floppy disk and then begin the installation process.

The installation procedure is explained below.

- (1) Start Windows.
- (2) Start the device file installer (DFINST). If the NEC Electronics development tool has been installed in the standard directory, the device file installer will be in *installed drive\Nectools32\bin*.
- (3) If installing from the floppy disk, insert the floppy disk in the floppy disk drive.
- (4) Click the **Install** button.
- (5) If installing from the floppy disk, use the **FD Browse** button to display the path where the disk image (icon) is located. Use the **Browse** button to do this if installing from hard disk.
- (6) Necsetup.ini file and _csetup.ini file are displayed in the file list of the dialog box that appears after step (5). Select _csetup.ini to install the English version and Necsetup.ini to install the Japanese version.
- (7) Follow the installation wizard to continue installation.

6. USAGE

Refer to the user's manual of each tool listed in **7. RELATED DOCUMENTS** for details of how to use the device file.

Caution The reset entry address is 0100000H.

See the user's manual of the device file for details.

7. RELATED DOCUMENTS

The documents related to the DF703111 are listed below.

User's Manuals
V850E/ME2 - Hardware
V850E1 - Architecture
CA850 C Compiler Package - Operation
CA850 C Compiler Package - C Language
CA850 C Compiler Package - Assembly Language
PM plus
ID850NW Operation
ID850NWC Operation
V850 Series Development Tools Tutorial Guide (Windows Base)

8. REVISION HISTORY

8.1 V1.10

- (1) First edition

8.2 V1.20

- (1) Addition of cache information
 (2) Addition of peripheral I/O register bit reserved word

The following peripheral I/O registers bit reserved words have been added.

Reserved Word	Peripheral I/O.location	Reserved Word	Peripheral I/O.location	Reserved Word	Peripheral I/O.location
CSDC0	PFCCS.0	CSDC4	PFCCS.4	CSDC6	PFCCS.6
CSDC7	PFCCS.7	OSTS0	OSTS.0	OSTS1	OSTS.1
OSTS2	OSTS.2				

- (3) Modification of peripheral I/O register access attributes

- OSTs (0xFFFFF6C0) 8-bit E^{Note} → 1/8-bit E^{Note}

(4) Modification of peripheral I/O register R/W attributes

The following peripheral I/O register bit access R/W attributes have been modified.

Reserved Word	Address	Before Change	After Change
PFCCS	0xFFFFF049	RRERRERR ^{Note}	EEEEERERE ^{Note}

(5) Addition of peripheral I/O registers

The following peripheral I/O registers have been added.

Reserved Word	Address
WAS	0xFFFFF49C
SIRBE30	0xFFFFFD0A
SIRBE30L	0xFFFFFD0A
SIRBE30H	0xFFFFFD0B
SIRBE31	0xFFFFFD2A
SIRBE31L	0xFFFFFD2A
SIRBE31H	0xFFFFFD2B

(6) Modification of peripheral I/O register R/W attributes

UF0DMS0 (0xFFFFFE27) 8-bit R^{Note} → Read prohibited

Note The attributes are read from left to right in the order bit 7, bit 6, bit 5, ... bit 0.
E: Read/Write, R: Read only, W: Write only, -: Access impossible

8.3 V1.30

Addition of on-chip instruction RAM information (due to addition of ID850NWC)