

CUSTOMER NOTIFICATION

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Yoshiro Harada, Senior System Integrator  
Microcomputer Group  
2nd Solutions Division  
Solutions Operations Unit  
NEC Electronics Corporation

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## Device File for 78K0S Series

### DF789306 (V1.01)

## 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.

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## 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 assembler, compiler, and debugger). 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 DF789306 contains device files necessary for developing applications using the  $\mu$ PD789306, 789316 Subseries microcontrollers in the 78K0S Series.

## 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	Device Specification Name	Version
Device file	D9304.78K	$\mu$ PD789304	9304	V1.00
	D9306.78K	$\mu$ PD789306	9306	V1.00
	DF9306.78K	$\mu$ PD78F9306	F9306	V1.00
	D9314.78K	$\mu$ PD789314	9314	V1.01
	D9316.78K	$\mu$ PD789316	9316	V1.01
	DF9316.78K	$\mu$ PD78F9316	F9316	V1.01
Database file	S930X.78K, S931X.78K			

The Device Specification Name is the character string specified as “-c *device specification name*” (device type specification option), “#pragma pc(*device specification name*)” in C source in the CC78K0S (C compiler), and “\$PROCESSOR(*device specification name*)” in assembler source in the RA78K0S (assembler).

The database file is required when using the system simulator SM78K0S. This file is also included in the SM78K0S. Installation of the database file can be selected when installing the device file and the SM78K0S.

It is recommended to use the latest version of the database file. If this file already exists when the database file is being installed using a device file installer, you are asked if you want to overwrite the file. At this time, confirm the time stamp and make sure that the file being installed is the latest version (note, however, that this file is always overwritten when installing the SM78K0S).

The file is not necessary when using the integrated debugger ID78K0S-NS. Therefore, you don't have to install this file.

### 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 NT 4.0
	Windows 98
	Windows 2000
	Windows Me
	Windows XP

### 4. CORRESPONDING VERSIONS OF DEVELOPMENT TOOLS

The corresponding versions of the DF789306 and 78K0S 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 CC78K0S	V1.30 or later
Assembler package RA78K0S	V1.30 or later
Integrated debugger ID78K0S-NS	V2.31 or later
System simulator SM78K0S	V2.30 or later

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

## 5. INSTALLATION

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

**Note** A self-extraction file (an execution file) is downloaded along with device files with ODS (online 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.

## 7. RELATED DOCUMENTS

The documents related to the DF789306 are listed below.

User's Manuals
$\mu$ PD789306, 789316 Subseries
78K0S Series Instruction
CC78K0S C Compiler Package Operation
CC78K0S C Compiler Package Language
RA78K0S Assembler Package Operation
RA78K0S Assembler Package Assembly Language
RA78K0S Assembler Package Structured Assembly Language
ID78K0S-NS Integrated Debugger Operation
SM78K0S System Simulator Operation

## 8. REVISION HISTORY

1. V1.00

(1) First edition

2. V1.01

(1) Change of the following function

- Oscillation stabilization time

(Reason for change: For stabilization of operation of the in-circuit emulator immediately after reset)