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Renesas Electronics Corporation

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M16C/60 Series and M16C/20 Series

General-purpose Program for Special Page Subroutine

1. Abstract

This program is an example for using a special subroutine call.

2. Introduction

The program branches to a subroutine at an address that is the address set in one of the special page vector tables (in 2 bytes each) plus F0000H. The area in which control can branch to a subroutine is from address F0000H to address FFFFFH.

The special page vector tables are located in an area ranging from address FFE00H to address FFFDBH. The special page number at address FFE00H is 255 and that at address FFFDAH is 18. A label can be used in place of a special page number. Shown in this program are an example where labels are used for special page numbers 255 and 18 and an example where a special page number (254) is used directly.

3. The example of a reference program

```

;*****
; *
; M16C General-purpose Programs *
; CPU : M16C *
; *
;*****
VromTOP .EQU 0F0000H ; Declares start address of ROM
;
;=====
; Title : Special page subroutine call
; Outline : Description example of special page subroutine call
; Input : -----> Output:
; R0 ( ) R0 ( )
; R1 ( ) R1 ( )
; R2 ( ) R2 ( )
; R3 ( ) R3 ( )
; A0 ( ) A0 ( )
; A1 ( ) A1 ( )
; Stack amount used: 3 bytes
;=====
        .SECTION PROGRAM, CODE
        .ORG VromTOP ; ROM area
MAIN:
    JSRS ¥SUB1 ; Branches to subroutine at LABEL_1
    JSRS #254 ; Branches to subroutine at LABEL_2
    JSRS ¥SUB238 ; Branches to subroutine at LABEL_238

; (Here is your program.)

LABEL_1:
; (Here is your program.)
RTS
LABEL_2:
; (Here is your program.)
RTS
LABEL_238:
; (Here is your program.)
RTS
;
        .SECTION SPECIAL, ROMDATA
        .ORG 0FFE00H ; Special page area
;-----
; Special page
;-----
SUB1: .WORD LABEL_1&0FFFFFFH ; Special page number 255
      .WORD LABEL_2&0FFFFFFH ; Special page number 254
;
      .ORG 0FFFDAH
SUB238: .WORD LABEL_238&0FFFFFFH ; Special page number 18
;
      .END ;

```

4. Reference

SOFTWARE MANUAL

M16C/60 M16C/20 Series SOFTWARE MANUAL

(Acquire the most current version from Renesas web-site)

5. Web-site and contact for support

Renesas Web-site

<http://www.renesas.com>

Contact for Renesas technical support

Mail to : support_apl@renesas.com

REVISION HISTORY

Rev.	Date	Description	
		Page	Summary
1.00	Jul 08, 2002	-	First edition issued

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