

To our customers,

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## Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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To all our customers

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Note : Mitsubishi Electric will continue the business operations of high frequency & optical devices and power devices.

Renesas Technology Corp.  
Customer Support Dept.  
April 1, 2003

# M16C/80 Series

## Comparing strings

### 1.0 Abstract

This program compares memory contents(string data) from one location to another by using a string compare instruction(SCMPU).

### 2.0 Introduction

This program compares memory contents(string data) from one location to another by using a string compare instruction(SCMPU).

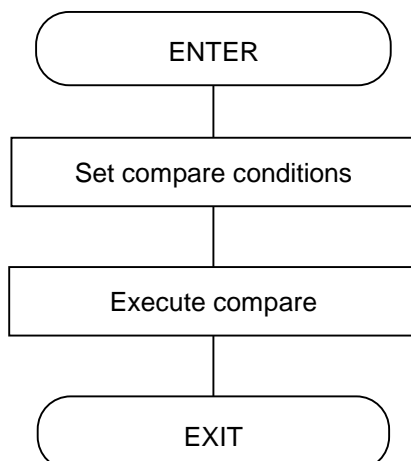
The program sets the source's start address in A0, and the destinations's start address in A1 before executing the SCMPU instruction.

Z	Meaning
0	Mismatch
1	Match

Subroutine name :	-	ROM capacity :	10byte
Interrupt during execution:	Accepted	Number of stacks used :	None

Register/memory	Input	Output	Usage condition
R0	-	-	Unused
R1	-	-	Unused
R2	-	-	Unused
R3	-	-	Unused
A0	-	Indeterminate	Source address
A1	-	Indeterminate	Destination address
STRING1	Content of STRING1	Does not change	←
STRING2	Content of STRING2	Content of STRING1	←
Z flag	-	Result of compare	←
Usage precautions			

### 3.0 Flowchart



### 4.0 Programming Code

```

*****
;
; *
;   M16C Program Collection
;   CPU : M16C/80 series
; *
;
*****
VramTOP      .EQU    0000400H          ; Declares start address of RAM
VromTOP      .EQU    0FE0000H          ; Declares start address of ROM
               .SECTIONRAM,DATA
               .ORGVramTOP             ; RAM area
LENGTH       .EQU    16                ; Length of area
STRING1:     .BLKB  LENGTH             ; Source area of string transfer
STRING2:     .BLKB  LENGTH             ; Destination area of string transfer
;;
=====
;   Title: Comparing strings
;   Outline: Example for using string compare instruction
;   Input:   ----->
;   R0( )
;   R1( )
;   R2( )
;   R3( )
;   A0( )
;   A1( )
;   Stack amount used: None
;   Notes:
=====
               .SECTION      PROGRAM,CODE
               .ORG          VromTOP          ; ROM area
MOV.L        #STRING1,A0          ; Sets source address
MOV.L        #STRING2,A1          ; Sets destination address
SCMPU.B
;                                     ;
               .END ;

```

## **5.0 Reference**

### **MCU Technical Information Homepage**

<http://www.infocom.maec.co.jp/indexe.htm>

(or <http://www.mdece.com/> , <http://www.mitsubishichips.com/products/mcu/index.html> or your local Web Site.)

### **Technical Support**

E-mail: [support@apl.maec.co.jp](mailto:support@apl.maec.co.jp)

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### **Data Sheet**

M16C/80 group

(Use the latest version on the Homepage: <http://www.infocom.maec.co.jp/indexe.htm>)

### **User's Manual**

M16C/80 group

(Use the latest version on the Homepage: <http://www.infocom.maec.co.jp/indexe.htm>)

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