



Adding Embedded IDE Drives to 1747-0C Series Open Controllers

Before you Begin

This publication will explain how to:

- select a FlashDrive, CompactFlash card, or microdrive for your open controller
- install a FlashDrive, CompactFlash card, or microdrive in an open controller CPU (as an embedded IDE drive)

Before you begin, be sure to read “About IDE Drives” and “Operating System/Application Software Considerations” in this publication.

About IDE drives

You have a number of options when selecting and installing primary and secondary IDE drives in your open controller system. Using a FlashDrive, CompactFlash card, or microdrive installed (“embedded”) in the open controller CPU module, as explained in this publication, is just one possible configuration. For complete information on configuring your system with an IDE drive(s), see the Open Controller User Manual, publication 1747-6.16.

Operating system/application software considerations

Before you install your embedded IDE drive, you need to decide how you will load your operating system/application software. For complete information on loading operating systems/application software, see the Open Controller User Manual, publication 1747-6.16.

IMPORTANT

You will need to load an operating system on your embedded IDE drive before you can use it to boot the open controller. For information about booting an open controller system, see the Open Controller User Manual, publication 1747-6.16.

Handling the component

ATTENTION



Electrostatic discharge (ESD) might be present whenever you handle the flash/microdrive component. ESD can cause internal circuit damage that might not be apparent during installation or initial use. Wear a grounding wriststrap while handling the component.

Take these precautions to guard against ESD damage:

- Before handling the component, wear a grounding wriststrap and touch a grounding object to discharge any built-up static charge.
- Avoid touching connector pins.
- When not in use, store the component in the anti-static packaging in which it was shipped.

Selecting an Embedded IDE Drive for your Open Controller

Use this table to select the proper component:

If you have this open controller:	Then you will need:
1747-OCE (5x86, 100 MHz)	1.3" FlashDrive; one per CPU
1747-OCF (Pentium, 266 MHz)	type I or II CompactFlash card or type II 1" microdrive; one per CPU

Approved products

The table below lists approved vendors and part numbers for FlashDrives, CompactFlash cards, and microdrives. These products have been tested and approved for use with the open controller. Use of these products will ensure that open controller agency certifications remain valid.

1.3" FlashDrive (for 1747-OCE)

Vendor	Part number	Description
M-Systems (www.M-sys.com) 510-494-2090	IDE-FD-13-CC CC = capacity (16-160MB)	IDE 2000 Flash Disk (1.3")

Type I or II CompactFlash Card (for 1747-OCF)

Vendor	Part number	Description
M-Systems (www.M-sys.com) 510-494-2090	CF-ATA-CC-T-PX; CC = capacity (4-48 MB) T = temperature (see web site for details) PX = packaging (see web site for details)	ATA CompactFlash Memory Card
SanDisk (www.Sandisk.com) 408-542-0400	SDFB-CC-MMM CC = capacity (8-192 MB) (see web site for details)	ATA CompactFlash Memory Card
Centennial Technologies (www.cent-tech.com) 800-942-0018	CF-CCM-H6 CC = capacity (8-190 MB) (see web site for details)	ATA CompactFlash Memory Card

Type II 1" Microdrive (for 1747-OCF)

Vendor	Part number	Description
www.ibm.com/harddrive or www.drive@us.ibm.com 888-IBM-5214	DMDM-10CCC CCC = capacity (170 or 340 MB)	IBM 340/170 MB Microdrive™ family

Installing the Embedded IDE Drive

Use this table to locate the specific installation procedures you need:

If you are installing a:	In a:	See page:
1.3" FlashDrive	1747-OCE Open Controller CPU	4
CompactFlash	1747-OCF Open Controller CPU	6
1" Microdrive	1747-OCF Open Controller CPU	6

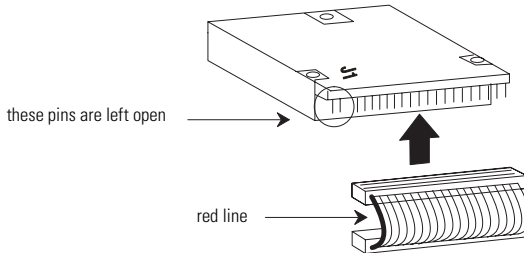
Installing a FlashDrive in a 1747-OCE open controller CPU

What you need:

- small flat-head screwdriver
- FlashDrive screws (M1.0 x 0.6 x 4 mm, slotted, cheese-head) that came with the open controller CPU)
- ribbon cable that came with the open controller CPU

Before you begin make sure the open controller CPU is not installed in the open controller chassis. Make sure you have a **1747-OCE** Open Controller.

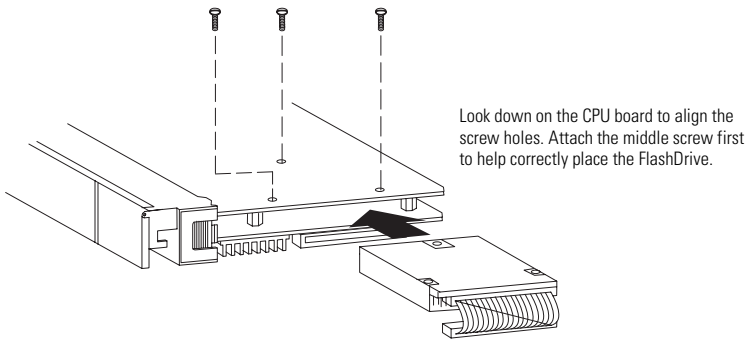
1. Attach the ribbon cable to the FlashDrive. Line the red line of the ribbon cable with the J1 marking on the FlashDrive circuit board.



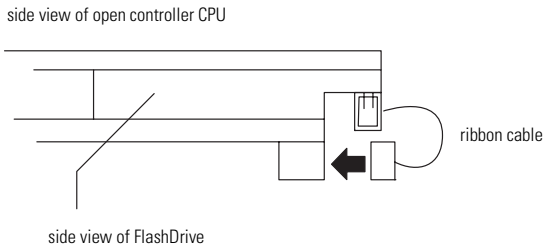
2. Insert the FlashDrive in the open controller CPU and attach it securely. Four screws (three to attach the FlashDrive and one extra) come with the open controller CPU. There are stops inside the open controller CPU that help you correctly place the FlashDrive.

ATTENTION

Not installing the screws derates the open controller system and may short electrical components within the CPU.



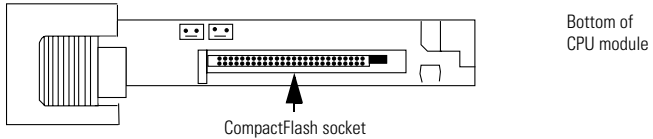
3. Attach the ribbon cable to the open controller CPU.



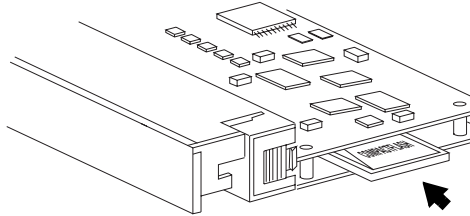
Installing a CompactFlash or 1" microdrive in a 1747-OCF Open Controller CPU

Before you begin, make sure the open controller CPU is not installed in the open controller chassis. Make sure you have a **1747-OCF** Open Controller.

1. Locate the CompactFlash socket on the bottom of the CPU module. This socket accommodates either a type I or II CompactFlash card or a 1" microdrive.



2. Insert the CompactFlash card or microdrive in the open controller CPU and push firmly to seat the card in the socket.



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