



# Cache Vault Accessory Kit Quick Start Guide

Copyright © 2012 ASUSTeK COMPUTER INC. All Rights Reserved.

No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of ASUSTeK COMPUTER INC. ("ASUS").

Product warranty or service will not be extended if: (1) the product is repaired, modified or altered, unless such repair, modification or alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

ASUS PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL ASUS, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF ASUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUCT.

SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FURNISHED FOR INFORMATIONAL USE ONLY, AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE, AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY ASUS. ASUS ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL, INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners' benefit, without intent to infringe.

## Contents

<b>Package contents.....</b>	<b>2</b>
<b>Installing the Cache Vault Kit on the holder and the PIKE card .....</b>	<b>3</b>
Installing the Cache Vault Power Module on the steel clip and holder.....	3
Standard installation of Cache Vault power module.....	3
Installing the Cache Vault Flash Module on the PIKE 2208 card.....	4
<b>Installing the Cache Vault Kit on specific ASUS server systems.....</b>	<b>5</b>
Installing the kit on RS720-X7/RS8, RS720-E7/RS12, RS720-E7/RS12-E server systems .....	5
Installing the kit on TS700-X7/PS4, TS700-E7/RS8 server systems .....	5
Installing the kit on RS920-E7/RS8, RS926-E7/RS8 server systems.....	6
Installing the kit on ESC4000 G2 GPU server system.....	7



# Package contents

LSI® MegaRAID® Cache Vault Accessory Kit		
		
Cache Vault Flash Module (CVFM02)	Screws (1): 3 screws for Cache Vault Flash Module	Cache Vault Power Module (CVPM02)
		
24" cable extender	LSI® steel CVPM clip	Screws (2): For LSI® steel CVPM clip (3 screws, 3 screw caps*)
ASUS Accessory Kit		
		
Steel bracket (1 x Full-height, 1 x Half-height)	Screws (3): 2 screws for the steel bracket	Screws (4): 3 screws** for ASUS steel CVPM clip holder
		<p>* Use these screws (2) and screw caps when installing LSI® steel CVPM clip on ASUS steel CVPM clip holder. Use the screw caps depending on the situation. (Supported servers: RS720-X7/RS8, RS720-E7/RS12, RS720-E7/RS12-E)</p> <p>** Use these screws (4) when installing LSI® steel CVPM clip directly on ASUS servers. (Supported servers: RS920-E7/RS8, RS926Q-E7/RS8)</p>
ASUS steel CVPM clip holder	42" cable extender	



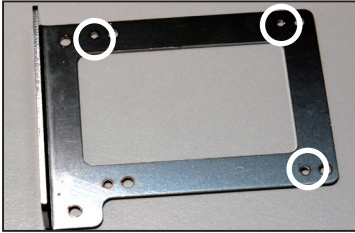
If any of the above items is damaged or missing, contact your retailer.

# Installing the Cache Vault Kit on the holder and the PIKE card

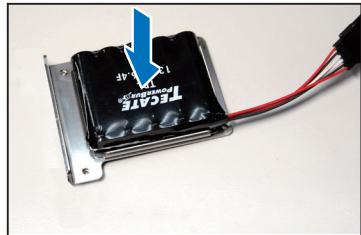
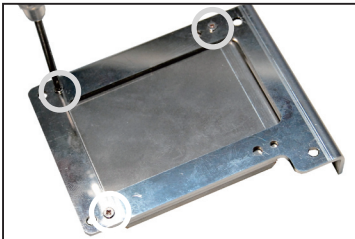
Install the Cache Vault Flash Module on the PIKE 2208 card, and follow the steps below to install the Cache Vault Power Module on ASUS steel CVPM holder.

## Installing the Cache Vault Power Module on the steel clip and holder

1. Locate the three screw holes on ASUS steel CVPM clip holder.
2. Find the LSI® steel CVPM clip for securing the Cache Vault Power Module.



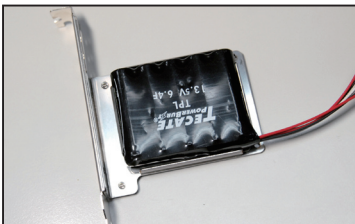
3. Align the three screw holes on the clip with the three screw holes on the holder, then secure the clip with the bundled screws (2).
4. Install the Cache Vault Power Module to the LSI® steel CVPM clip.



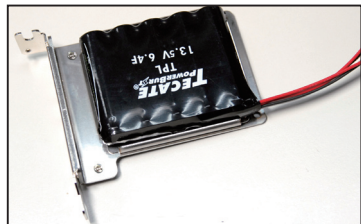
## Standard installation of Cache Vault power module

Some specific ASUS server systems have a specific space for installing Cache Vault Power module, allowing you the use of all your system's expansion slots. For generally standard installation, please follow the steps below.

1. Install the Cache Vault Power Module on the full-height or half-height steel bracket according to the type of expansion slots on your server system as shown below.



CVPM installed on the full-height steel bracket, secured with the bundle screws (3).

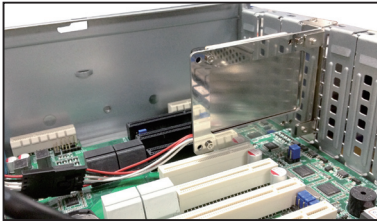


CVPM installed on the half-height steel bracket, secured with the bundle screws (3).

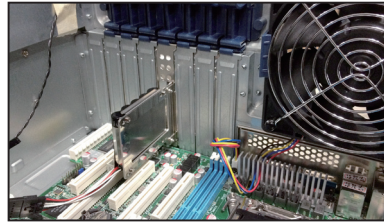
2. Install the Cache Vault Power Module on your server system.



The images shown below are for reference only.



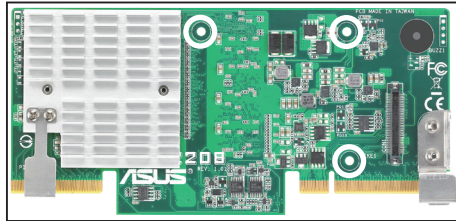
Installed on a 2U server system.



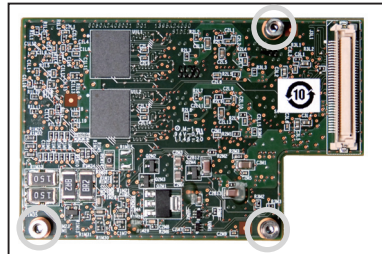
Installed on a 5U server system.

## Installing the Cache Vault Flash Module on the PIKE 2208 card

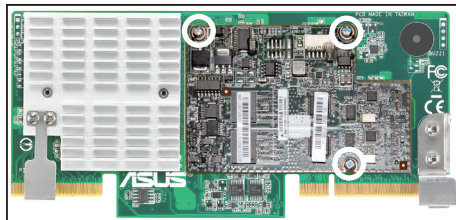
1. Place the PIKE 2208 card on a flat, stable surface. Locate the three screw holes on it.



2. Locate the three screw washers on the Cache Vault Flash Module.



3. Align the three screw washers to the three screw holes on the PIKE 2208 card. Drive in the bundled screws (1) to secure the Cache Vault Flash Module.



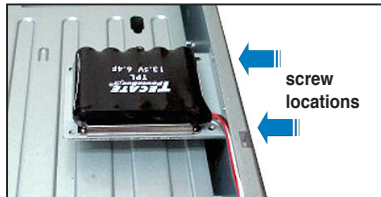
If the PIKE 2208 card is already installed in a server system, uninstall it from the system, and install the Cache Vault Flash Module to the PIKE 2208 card as instructed above. For details, refer to user manual that came with your server system.

# Installing the Cache Vault Kit on specific ASUS server systems

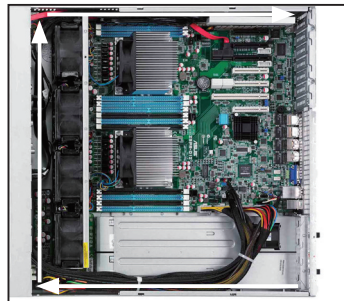
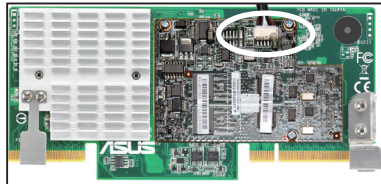
After installing the Cache Vault Flash Module on the PIKE 2208 card, and installing the Cache Vault Power Module on the steel CVPM clip and holder, install these two assemblies to the specific ASUS server systems as instructed below.

## Installing the kit on RS720-X7/RS8, RS720-E7/RS12, RS720-E7/RS12-E server systems

1. Locate the two screw holes on the right side of the server chassis.
2. Align the two screws on the side of the steel CVPM holder installed with the Cache Vault Power Module to the two screw holes on the right side of the server chassis. Secure the holder assembly with two screws, and connect the 42" cable extender to the Cache Vault Power Module.
3. Connect the other end of the 42" cable extender to the Cache Vault Flash Module that is installed on the PIKE 2208 card.



4. Install the PIKE 2208 card into the server system. Arrange the cable extender in the direction of the arrows.

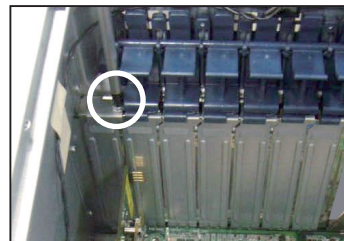


## Installing the kit on TS700-X7/PS4, TS700-E7/RS8 server systems

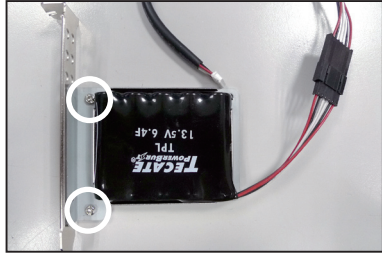
1. Remove the chassis cover and lay the system on its side on a flat, stable surface. Use a Phillip driver to remove the screw on the metal slot cover and set the screw aside. Remove the metal slot cover.



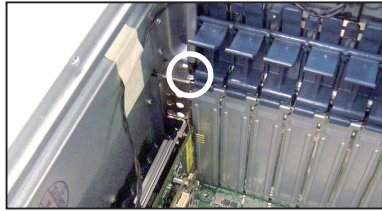
Remove the metal slot cover close to the bottom of the server chassis.



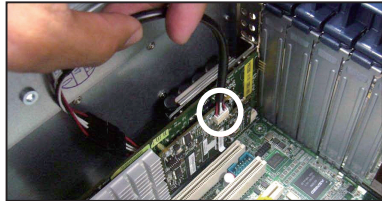
- Align the two screws on the side of the steel CVPM holder installed with the Cache Vault Power Module to the screw holes of the full-height steel bracket. Secure the holder assembly with the bundled screws (3).



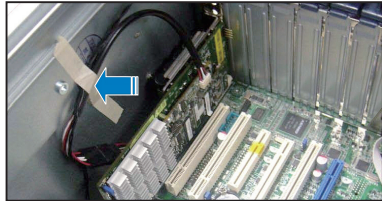
- Place the holder assembly into the system and secure it with the screw removed earlier in step 1.



- Install the PIKE 2208 card installed with the Cache Vault Flash Module on the system. Connect the cable from the Cache Vault Power Module to the Cache Vault Flash Module.

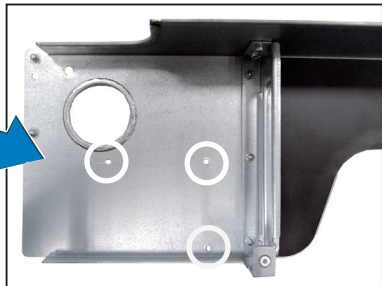
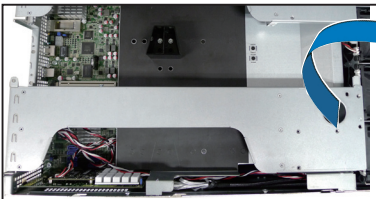


- Secure the cable to the bottom chassis cover using a piece of acetate cloth tape.



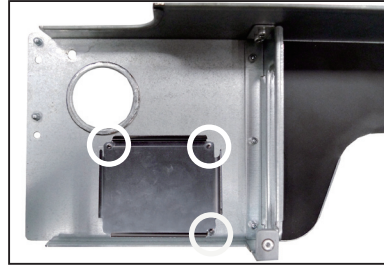
### Installing the kit on RS920-E7/RS8, RS926-E7/RS8 server systems

- Take out the riser card bracket from the system and place it on a flat, stable surface. Locate the three screws.

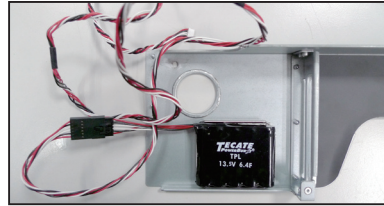


For more details on how to uninstall the riser card bracket, refer to the user manual that came with your server system.

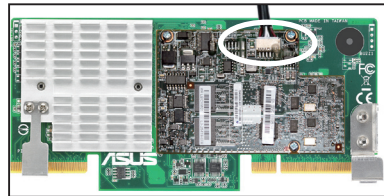
2. Align the three screw holes on the LSI® steel CVPM clip to the three screw holes on the bracket, and secure the clip with the bundled screws (4).



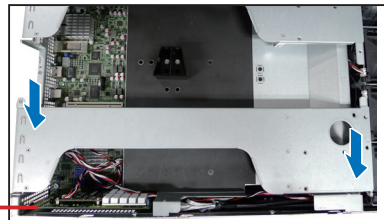
3. Install the Cache Vault Power Module to the clip and connect the 42" cable extender to it.



4. Connect the other end of the 42" cable extender to the Cache Vault Flash Module which is installed on the PIKE 2208 card.



5. Install the PIKE 2208 card to the expansion slot, and then install the bracket to the system as shown. Wrap the excessive part of the cable and place it into the gap beside the PIKE 2208 card.



PIKE 2208 card



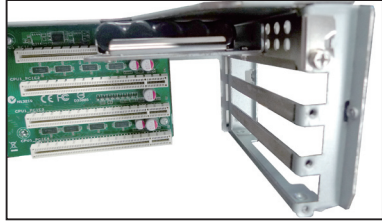
For more details on how to uninstall the riser card bracket, refer to the user manual that came with your server system.

## Installing the kit on ESC4000 G2 GPU server system

1. Align the two screws on the side of the steel CVPM holder installed with the Cache Vault Power Module to the screw holes of the full-height steel bracket. Secure the holder assembly with the bundled screws (3).



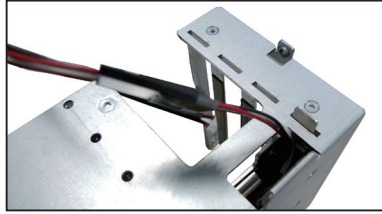
2. Take out the riser card bracket from the right side of the server system. Align the screw holes on the holder assembly to the screws holes on the bracket, then secure the holder assembly with a screw.



3. Put the cable through the hole on the bracket.



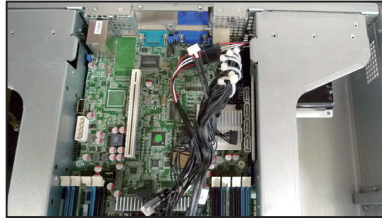
For more details on how to uninstall the riser card bracket, refer to the user manual that came with your server system.



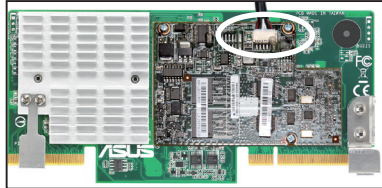
4. Place the bracket into the server system and secure it with screws.



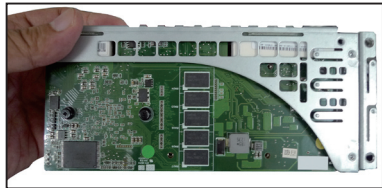
For more details on how to uninstall the riser card bracket, refer to the user manual that came with your server system.



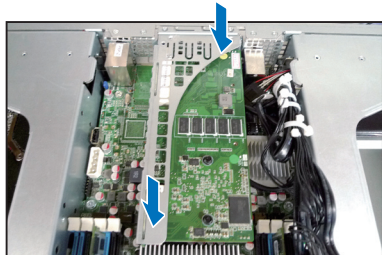
5. Connect the cable from the Cache Vault Power Module to the Cache Vault Flash Module that is installed on the PIKE 2208 card.



6. Install the PIKE 2208 card to the riser card bracket.



7. Install the bracket to the system according to the instructions in the server system's user manual.







# Cache Vault Accessory Kit

## 快速安裝手冊

### 版權說明

©ASUSTeK Computer Inc. All rights reserved. 華碩電腦股份有限公司保留所有權利  
本使用手冊包括但不限於其所包含的所有資訊皆受到著作權法之保護，未經華碩電腦股份有限公司（以下簡稱「華碩」）許可，不得任意地仿製、拷貝、謄抄、轉譯或為其他利用。

### 免責聲明

本使用手冊是以「現況」及「以目前明示的條件下」的狀態提供給您。在法律允許的範圍內，華碩就本使用手冊，不提供任何明示或默示的擔保及保證，包括但不限於商業適銷性、特定目的之適用性、未侵害任何他人權利及任何得使用本使用手冊或無法使用本使用手冊的保證，且華碩對因使用本使用手冊而獲取的結果或透過本使用手冊所獲得任何資訊之準確性或可靠性不提供擔保。

台端應自行承擔使用本使用手冊的所有風險。台端明確了解並同意，華碩、華碩之授權人及其各該主管、董事、員工、代理人或關係企業皆無須為您因本使用手冊、或因使用本使用手冊、或因不可歸責於華碩的原因而無法使用本使用手冊或其任何部分而可能產生的衍生、附隨、直接、間接、特別、懲罰或任何其他損失（包括但不限於利益損失、業務中斷、資料遺失或其他金錢損失）負責，不論華碩是否被告知發生上開損失之可能性。

由於部分國家或地區可能不允許責任的全部免除或對前述損失的責任限制，所以前述限制或排除條款可能對您不適用。

台端知悉華碩有權隨時修改本使用手冊。本產品規格或驅動程式一經改變，本使用手冊將會隨之更新。本使用手冊更新的詳細說明請您造訪華碩的客戶服務網 <http://support.asus.com>，或是直接與華碩資訊產品技術支援專線 0800-093-456 聯絡。

於本使用手冊中提及之第三人產品名稱或內容，其所有權及智慧財產權皆為各別產品或內容所有人所有且受現行智慧財產權相關法令及國際條約之保護。

當下列兩種情況發生時，本產品將不再受到華碩之保固及服務：

- (1) 本產品曾經過非華碩授權之維修、規格更改、零件替換或其他未經過華碩授權的行為。
- (2) 本產品序號模糊不清或喪失。

## 目錄

包裝盒內容物.....	2
安裝 Cache Vault 套件至支架與 PIKE 控制卡.....	3
安裝 Cache Vault 電源模組至 CVPM 鐵件夾與支架.....	3
Cache Vault 電源模組一般標準安裝.....	3
安裝 Cache Vault 快閃記憶體模組至 PIKE 2208 控制卡.....	4
Cache Vault 電源模組安裝至特定華碩伺服器.....	5
安裝至 RS720-X7/RS8、RS720-E7/RS12、RS720-E7/RS12-E 伺服器..	5
安裝至 TS700-X7/PS4、TS700-E7/RS8 伺服器.....	5
安裝至 RS920-E7/RS8、RS926-E7/RS8 伺服器.....	6
安裝至 ESC4000 G2 GPU 伺服器.....	7

# 包裝盒內容物

LSI® MegaRAID® Cache Vault Accessory Kit 組件		
		
Cache Vault 快閃記憶體模組 (Cache Vault Flash Module) (CVFM02)	螺絲(1)：Cache Vault 快閃記 憶體模組專用螺絲 (3 顆)	Cache Vault 電源模組 (Cache Vault Power Module) (CVPM02)
		
24 吋纜線延長線 (24" Cable extender)	LSI® CVPM 鐵件夾 (Steel CVPM clip/holder)	螺絲(2)：LSI® CVPM 鐵件夾 專用螺絲與螺帽* (含 3 顆螺 絲、3 個螺帽)
<b>華碩專用組件</b>		
		
鐵件擋板 (半高與全高各一 個)	螺絲(3)：鐵件擋板螺絲 2 顆	螺絲(4)：華碩 CVPM 鐵件夾 專用支架組裝用螺絲 3 顆 **
		* 螺絲(2) (含螺帽) 為提供 安裝於華碩 CVPM 鐵件夾 專用支架時使用 (螺帽為 視現況需求安裝) (支援 RS720-X7/RS8、RS720-E7/ RS12、RS720-E7/RS12-E 伺服器使用)。 ** 螺絲(4) 為提供 LSI® CVPM 鐵件夾直接安裝於華碩伺服 器時使用 (支援 RS920-E7/ RS8、RS926Q-E7/RS8 伺服 器使用)。
華碩 CVPM 鐵件夾專用支架	42 吋纜線延長線 (42" Cable extender)	



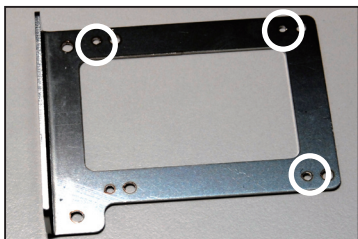
若以上列出的任何一項配件有損壞或是短缺的情形，請儘速與您的經銷商連絡。

## 安裝 Cache Vault 套件至支架與 PIKE 控制卡

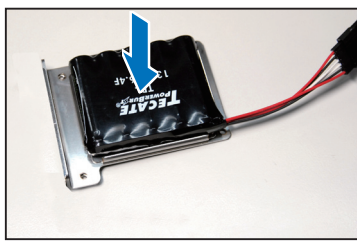
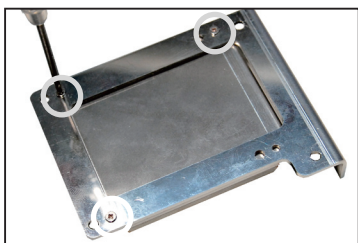
首先，我們將 Cache Vault 快閃記憶體模組安裝至 PIKE 2208 控制卡，以及將 Cache Vault 電源模組安裝至專用支架，請依照以下的說明進行。

### 安裝 Cache Vault 電源模組至 CVPM 鐵件夾與支架

1. 取出華碩 CVPM 鐵件夾專用支架，找到上面三個螺絲孔位。
2. 取出 LSI® CVPM 鐵件夾以供固定 Cache Vault 電源模組。



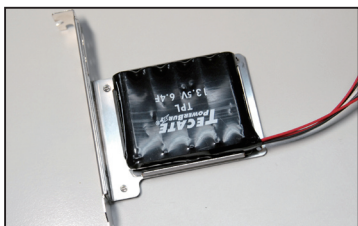
3. 翻轉 LSI® CVPM 鐵件夾與專用支架至背面，將鐵件夾上的安裝孔位對準專用支架，並鎖上三顆包裝盒內附的螺絲(2)。
4. 然後，再將 Cache Vault 電源模組裝入 LSI® CVPM 鐵件夾裡，完成初步安裝。



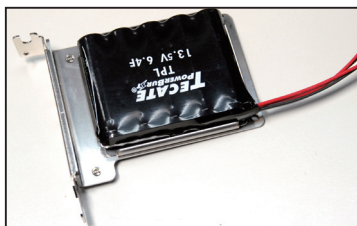
### Cache Vault 電源模組一般標準安裝

在特定華碩伺服器系統內已有設計安裝 Cache Vault 電源模組的專用位置，可以免除佔用一個介面卡擴充插槽。一般標準安裝，請參考以下方式進行。

1. 依照您的伺服器系統內提供的介面卡擴充槽形式，選擇裝上全高或半高鐵件擋板，如下圖所示。



裝上全高鐵件擋板（使用螺絲(3)鎖上）。

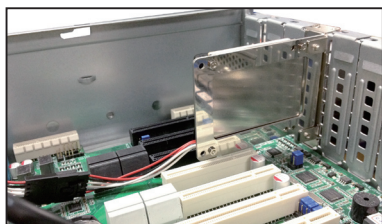


裝上半高鐵件擋板（使用螺絲(3)鎖上）。

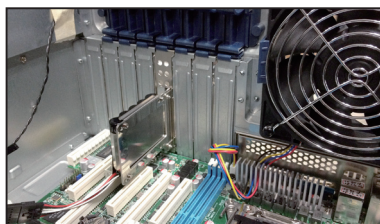
2. 接著就可以將 Cache Vault 電源模組裝入各型伺服器系統中。



因各型伺服器不同，以下圖示為僅供安裝介面卡時的示意參考使用。



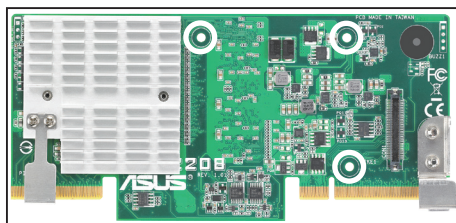
裝入 2U 伺服器。



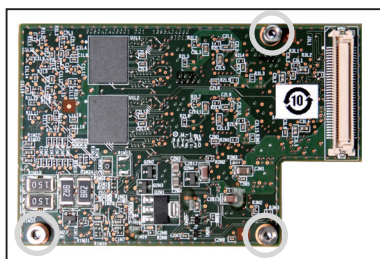
裝入 5U/ 直立式伺服器。

## 安裝 Cache Vault 快閃記憶體模組至 PIKE 2208 控制卡

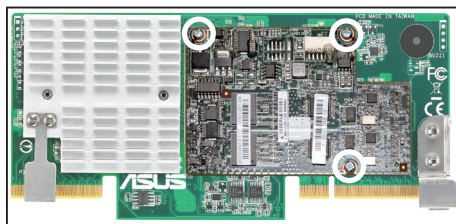
1. 取出 PIKE 2208 控制卡，放置在平坦的桌面上，找到上面三個螺絲安裝孔位。



2. 然後取出 Cache Vault 快閃記憶體模組，找到上面三根螺絲安裝腳座。



3. 將 Cache Vault 快閃記憶體模組翻轉至背面，然後將三根安裝腳座對準 PIKE 2208 控制卡上的安裝孔位，並從控制卡背面鎖上三顆螺絲(1)，完成固定。



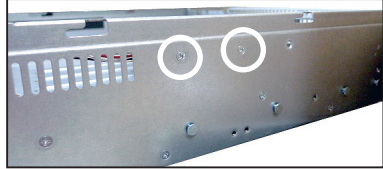
若您的 PIKE 2208 控制卡已安裝在伺服系統內，請先從系統內取出（請參考伺服器系統使用手冊的說明）後再安裝 Cache Vault 快閃記憶體模組。

# Cache Vault 電源模組安裝至特定華碩伺服器

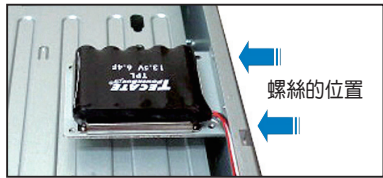
當安裝好 Cache Vault 快閃記憶體模組的 PIKE 2208 控制卡，以及裝上支架的 Cache Vault 電源模組後，接著就可以依照以下的說明，將這兩個組件裝至下列特定的華碩伺服器系統裡。

## 安裝至 RS720-X7/RS8、RS720-E7/RS12、RS720-E7/RS12-E 伺服器

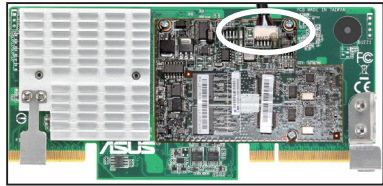
1. 找到位於伺服器系統機殼右側的螺絲安裝孔位。



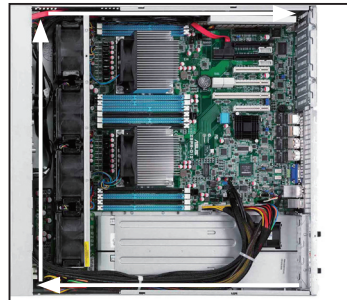
2. 取出已裝上 Cache Vault 電源模組鐵件夾的支架，如右圖所示，將此支架裝入機殼側邊內側，並鎖上螺絲，然後連接 42 吋纜線延長線。



3. 然後，再將延長線的另一端則連接至 Cache Vault 快閃記憶體模組上面的插座。



4. 接著將 PIKE 2208 控制卡裝回系統中，並依照箭頭所示的方向，整理好延長線的線路。

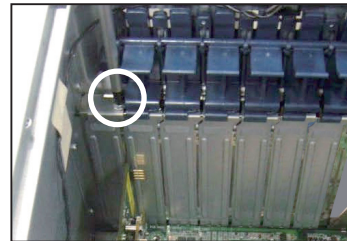


## 安裝至 TS700-X7/PS4、TS700-E7/RS8 伺服器

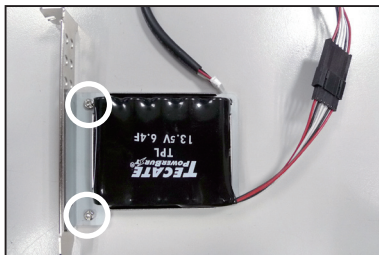
1. 打開機殼蓋板並將系統橫放平躺於桌面上，使用十字螺絲起子，鬆開最後一支擋板上的螺絲，並取出擋板，請將螺絲先放置於一旁。



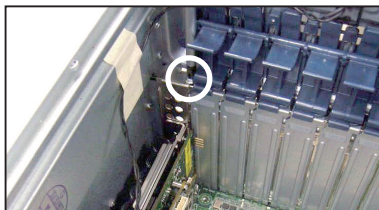
此為靠近機殼底部的擋板。



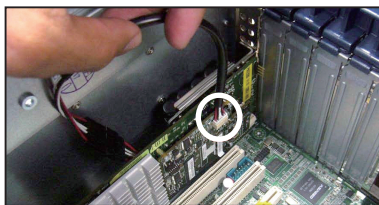
2. 取出已裝上 Cache Vault 電源模組鐵件夾的支架，並於支架側邊鎖上全高擋板（使用螺絲(3) 安裝）。



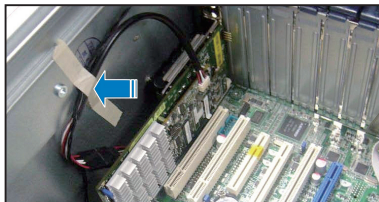
3. 裝上此支架至機殼內，並鎖上先前放置一旁的螺絲，完成固定。



4. 將已裝好 Cache Vault 快閃記憶體模組的 PIKE 2208卡裝入系統，並將 Cache Vault 電源模組上的纜線連接至 Cache Vault 快閃記憶體模組上的插座，如右圖所圈處。

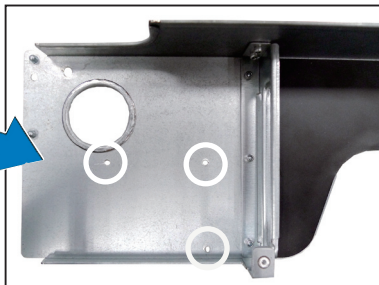
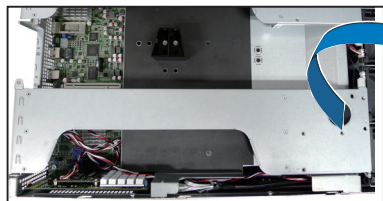


5. 最後，將纜線以醋酸膠帶連貼於底座上，完成安裝。



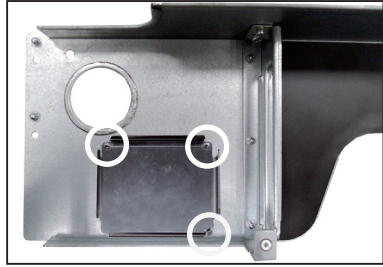
## 安裝至 RS920-E7/RS8、RS926-E7/RS8 伺服器

1. 從系統中取出轉接卡，並放置於平坦的桌面上，找到如右圖所示的三個螺絲孔位。

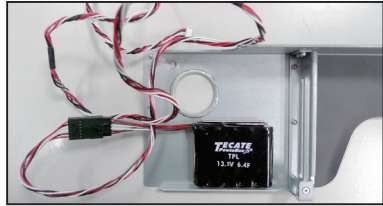


若想要了解更多關於如何拆裝轉接卡的步驟，請參考伺服器系統使用手冊上的說明。

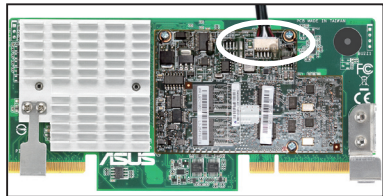
- 取出 LSI® CVPM 鐵件夾（不需裝上專用支架），使用產品包裝內附的螺絲，如右圖所示將此鐵件夾使用三顆鐵件夾專用螺絲(4) 從背面鎖在轉接卡上面。



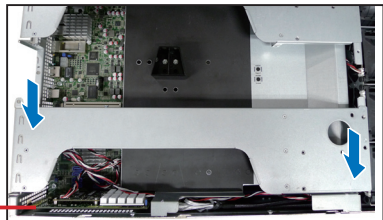
- 接著裝上 Cache Vault 電源模組，並連接 42 吋纜線延長線。



- 然後，將延長線的另一端連接至 Cache Vault 快閃記憶體模組的插座。



- 將 PIKE 2208 控制卡裝上擴充槽，再將轉接卡裝回系統內（如右圖箭頭所示）。然後將多餘的延長線整理好，埋入 PIKE 2208 控制卡旁的縫隙中，完成安裝。



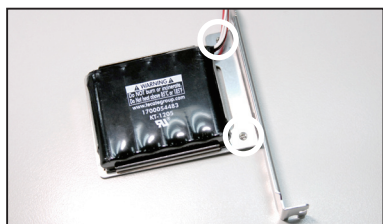
PIKE 2208 卡



若想要了解更多關於如何拆裝轉接卡的步驟，請參考伺服器系統使用手冊上的說明。

## 安裝至 ESC4000 G2 GPU 伺服器

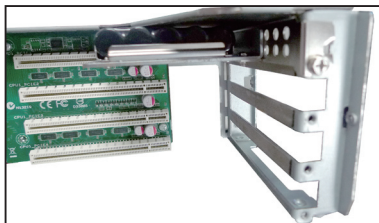
- 取出已裝上 Cache Vault 電源模組鐵件夾的支架，並於支架側邊鎖上全高鐵件擋板（使用螺絲(3) 安裝）。



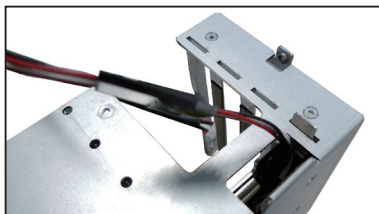
- 取出系統內右側的擴充卡支撐架，將此支架裝入支撐架裡並鎖上一顆螺絲固定。



若想了解更多關於如何拆裝擴充卡支撐架的步驟，請參考伺服器系統使用手冊上的說明。



- 再將纜線穿過右圖中的走線孔（圈選處）。



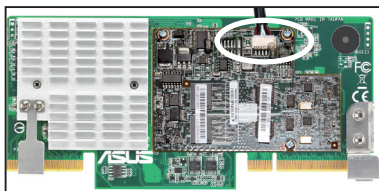
- 將擴充卡支撐架裝回系統中，並鎖上螺絲固定。



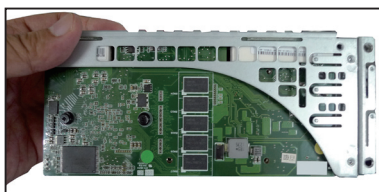
若想了解更多關於如何安裝轉接卡的步驟，請參考伺服器系統使用手冊上的說明。



- 連接纜線至已裝在 PIKE 2208卡上的 Cache Vault 快閃記憶體模組上面的插座。



- 接著如右圖所示，將 PIKE 2208 卡裝入中央的轉接卡。



- 最後，請依照伺服器系統使用手冊內的安裝說明，將轉接卡裝回系統內，完成安裝。

