

ANS-9010 Quick Installation Guide

5.25" RAM Disk1 + 2
Version: 1.0



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Release: October 2008



**WEEE Statement**

English

In order to cope with the increasing waste electrical and electronic equipment, reduce the use of landfill and incinerator, and prevent the harmful matter of waste equipment from entering the environment, the European Union (EU) has set the Directive on Waste Electrical and Electronic Equipment (WEEE) asking manufacturers to collect, recycle and treat waste electrical and electronic equipment properly. Member nations already established their free of charge recycle systems of WEEE before August 13, 2005. Accordingly, ACARD has to be responsible for recycling all products exported to Germany. You can return your ACARD product that needs recycling to a local collector.

WEEE Erklärung

German

Mit dem Ziel die steigende Menge elektrischer und elektronischer Altgeräte zu bewältigen ohne hierzu unnötig Mülldeponien und Verbrennungsanlagen zu belasten und um die Verschmutzung der Umwelt durch freiwerdende Stoffe aus den Altgeräten zu vermeiden, hat die Europäische Union (EU) die Richtlinie über Elektro- und Elektronik-Altgeräte erlassen. Die Richtlinie verpflichtet Hersteller, elektrische und elektronische Altgeräte umweltgerecht einzusammeln, zu recyceln und zu entsorgen. Die Mitgliedsstaaten der EU haben bereits ihre kostenfreien Recyclesysteme konform der WEEE vor dem 13. August 2005 eingerichtet. Entsprechend der Richtlinie ist ACARD verantwortlich für die umweltgerechte Entsorgung aller nach Deutschland exportierten ACARD Produkte. Sie können Ihr zu entsorgendes ACARD Produkt zu Ihrer örtlichen Sammelstelle bringen.

AEEA verklaring

Dutch

Met het doel de stijgende hoeveelheid afgedankte elektrische en elektronische apparatuur te beheersen zonder hiervoor onnodig stortplaatsen en verbrandingsovens te beladen en om de vervuiling van het milieu door vrijkomende stoffen uit de afgedankte apparatuur te voorkomen, heeft de Europese Unie (EU) de richtlijn betreffende afgedankte elektrische en elektronische apparatuur besloten. Deze richtlijn verplicht fabrikanten afgedankte elektrische en elektronische apparatuur in te zamelen, te recyclen en te verwijderen. De lidstaten van de EU hebben reeds de kosteloze recyclesystemen volgens de AEEA vóór de 13 augustus 2005 ingericht. Conform de richtlijn is ACARD verantwoordelijk voor de verwijdering van alle naar Nederland geëxporteerde ACARD producten. U kunt uw afgedankt ACARD product naar uw lokale inzamelplaats brengen.

Elektrik ve Elektronik Madde Atıkları Demeci

Turkish

Elektrik ve elektronik madde atıklarının yükseltmesiyle basedebilmek ,arazi doldurma ve çöp yakma fırını kullanımını azaltmak,atık madde zararlarının çevreye yayılmasını önlemek için Avrupa Birliği (AB),ureticilerden elektrik ve elektronik madde atıklarını gerektiği gibi toplamalarını,geri donusturmelerini ve kimyasal işleme tabi tutmalarını talep etmek için Elektrik ve Elektronik Madde Atıkları üzerine bir direktif hazırladı.Topluluk üyeleri,13 Agustos 2005' ten önce elektrik ve elektronik madde atıklarının ücretsiz geri dönüşüm sistemlerini coktan oluşturmuşlardır.Bundan dolayı, ACARD, Almanya'ya ihrac ettiği bütün ürünlerin geri dönüşümünden sorumludur.ACARD ürünlerini geri dönüşüm gerektirirse yerel toplayıcılara geri verebilirsiniz.

WEEE бюллетень

[Russian](#)

Чтобы справиться с увеличивающимся ненужным электрическим и электронным оборудованием, уменьшите использование закапывания мусора и использования установки для сжигания отходов, препятствуйте вредному выбросам загрязнять окружающую среду, Европейский союз (ЕС) установил Директиву по Ненужному Электрическому и Электронному Оборудованию (WEEE) для того, чтобы изготовителей собрали, перерабатывали и вообще проявили внимание к ненужному электрическому и электронному оборудованию должным образом. Члены нации установили бесплатную систему и электронному оборудованию должным образом. Члены нации установили бесплатную систему переработки WEEE до 13 августа 2005. Соответственно, ACARD обязан быть ответственным за то, что переработал все продукты, экспортные в Германию. Вы можете вернуть ваш продукт ACARD, который нуждается в рециркуляции местному сборщику.

WEEE Statement

[French](#)

Afin de gérer la quantité croissante de déchets électriques et électroniques, de réduire l'utilisation des décharges et des incinérateurs et d'éviter que des déchets nocifs ne polluent l'environnement, l'Union Européenne a publié la directive WEEE sur les déchets électriques et électroniques. Celle-ci spécifie que les fabricants doivent collecter, recycler et traiter l'équipement électrique et électronique usagé. Depuis le 13 août 2005, les pays membres ont mis en place un système de recyclage gratuit selon le WEEE.,.

De ce fait, Acard est responsable du recyclage de tous les produits exportés vers l'Allemagne. Vous pouvez mettre au rebut votre équipement ACARD usagé dans votre centre local de recyclage.

Pour plus d'informations sur les lieux de mise au rebut des équipements usagés destinés au recyclage, veuillez contacter votre mairie, votre service de traitement des déchets ménagers ou le magasin où vous avez acheté le produit.

RAEE

[Spanish](#)

Con la finalidad de reducir el incremento de residuos eléctricos y de material electrónico, reduciendo el uso de los vertederos e incineradoras y prevenir el preocupante aumento del contacto de estos residuos con el medio ambiente. Por este motivo la Unión Europea ha fijado la Directiva de Residuos de Aparatos Eléctricos y Electrónicos (RAEE) solicitando a los fabricantes la recolección, reciclaje y tratamiento de estos residuos correctamente. Los países miembros ya han establecido su sistema de reciclaje gratuito de RAEE antes del 13 de Agosto del 2005. Por este motivo ACARD es el responsable del reciclaje de todos los productos exportados a Alemania. Usted puede devolver su producto Acard a un punto de recogida local cuando desee reciclarlo.

Dichiarazione WEEE

[Italian](#)

Per far fronte all'aumento dei residui delle apparecchiature elettriche ed elettroniche, ridurre l'uso di materiale di riporto e degli inceneritori, ed impedire che il materiale nocivo delle apparecchiature residue entri a contatto con l'ambiente, l'Unione Europea (UE) ha stabilito le Direttive sui Residui delle apparecchiature Elettriche ed Elettroniche (WEEE) chiedendo ai fornitori di raccogliere correttamente, riciclare e trattare le apparecchiature elettriche ed elettroniche residue. Le nazioni facenti parte dell'Unione Europea hanno già stabilito il loro sistema gratuito di riciclaggio di questo materiale (WEEE) prima del 13 agosto 2005. Di conseguenza, ACARD è responsabile del riciclaggio di tutti i prodotti esportati in Germania. Potete restituire il vostro prodotto acquistato da ACARD che deve essere riciclato da un'azienda specifica locale.

English

*Important notice:

1. Do not connect SATA power and battery power cores to ANS-9010B while installing and/or exchanging DDR2 SDRAM DIMM.
2. CF card is required to be larger or equal than the total capacity of RAM to be able to backup all data in memories.
3. To ensure the functionality and stability, please use the same brand, size and series of DDR SDRAM DIMM in the ANS-9010. (check the compatibility list on the ACARD website)
4. Before install, please disable the SSC of the SATA controller to avoid compatibility issue.
5. The ANS-9010 supports both ECC and Non-ECC DDR2 SDRAM DIMM. It does not support Buffered nor Registered DDR2 SDRAM DIMM.
6. ANS9010 was built-in with ECC Emulation function. This function will be auto disabled when ECC DDR2 DIMM is installed. When using the ECC DIMM, users can obtain full capacity as RAM Disk. However, one ninth of the capacity will be reserved for restoring ECC data if Non-ECC DIMM is used. (ex. ECC 2Gx8=16G RAM DISK; Non-ECC 2Gx8x8/9=14.2GB RAM Disk)

Overview

ACARD RAM Disk is a solid state disk make up DRAM memory modules, for faster than the traditional hard drives and flash drives. With the speedy random access rate and shorter access time, RAM Disk is definitely suitable for graphics designs and database systems. It also supports an CF slot for data backup / restore to prevent data lost.

•Features

- Supports up to 64GB amount of memory
- Supports ECC / Non-ECC DDR2 400/533/667/800*
- Automatic data backup/restore between DDR2 memory and CF card
- Built-in Lithium Battery
- LED indicators for battery capacity, power status, SATA ports activity, backup status, restore status
- Driver less : need no driver on host side

*Note: Please refer to Compatibility List for DDR2 RAM Module

•Specifications

- Two SATA 3.0Gbps Interface ports
- 240-pin DDR2 DIMM module slots x 8
- One CF socket in front panel
- Lithium Battery of 7.4V 2400mAh, for data backup when power lost
- Data transfer rate up to 400MB/sec
- IOPS 20,000 per SATA port
- Dimension: 42(H) x 145(W) x 214 (D) mm

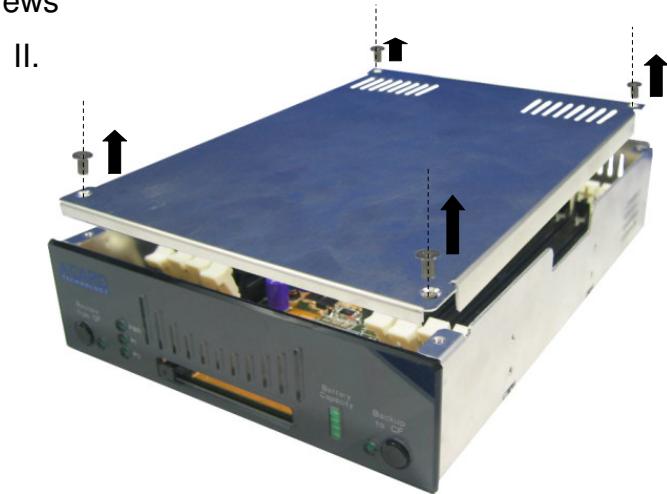
•Packing

- ANS-9010 x1
- User Install Guide x1
- Internal SATA Cable 50cm x2
- 15pin SATA Power Cable x1
- Screw x4
- Lithium Battery x1
(warranty: 12 months)

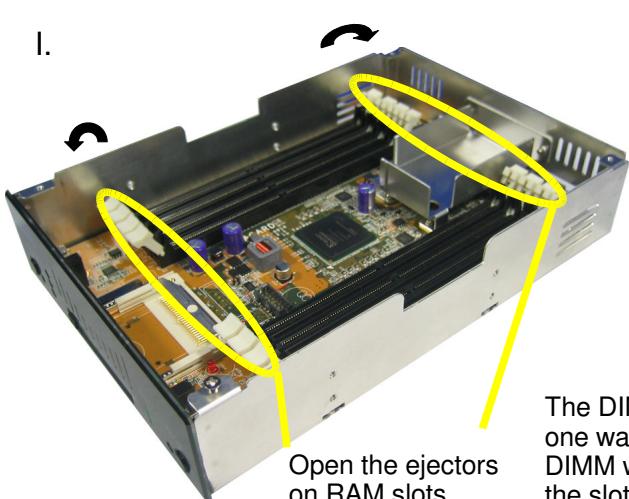


Install Memory

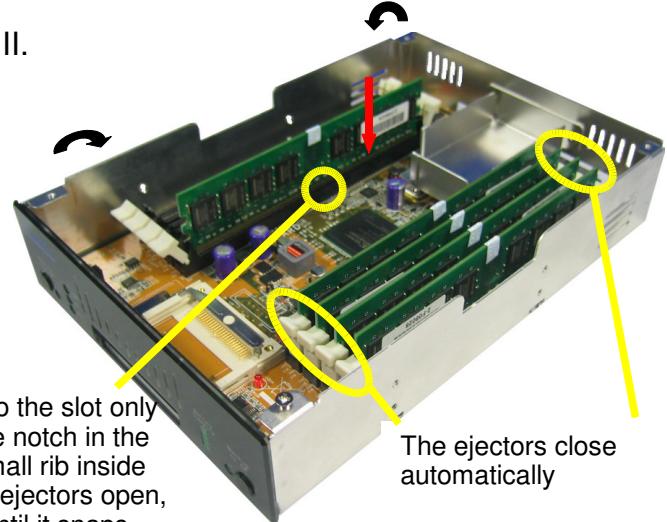
1. Open the upper cover by unscrewing the four screws



2. Install DDR2 SDRAM DIMM referring to the following figures and notices



Open the ejectors
on RAM slots



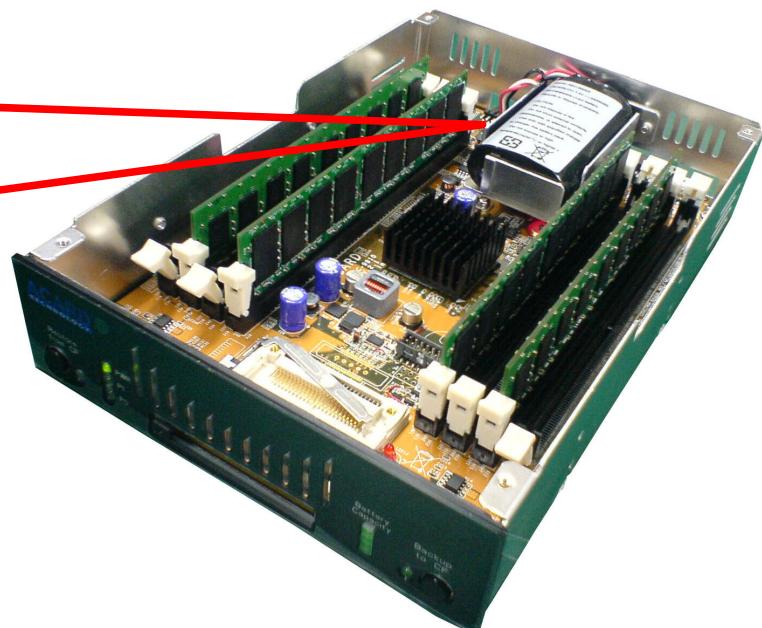
The DIMM fits into the slot only one way. Align the notch in the DIMM with the small rib inside the slot. With the ejectors open, push the DIMM until it snaps into place.

The ejectors close automatically

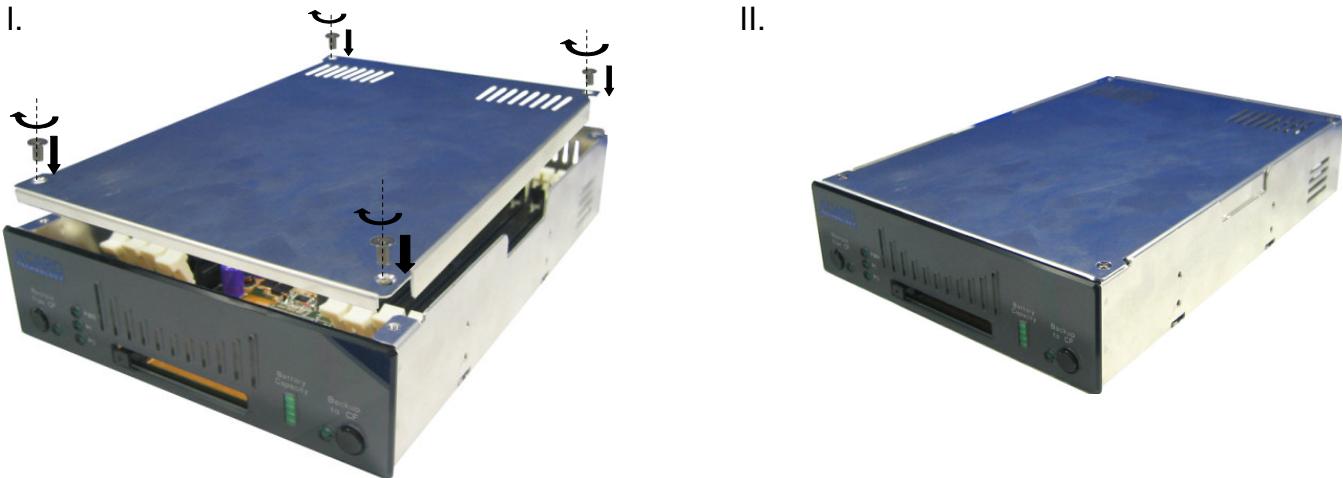
3. To prolong battery life, it will not be connected to the control board of the ANS-9010 while shipping. Please connect it to CN3 to enable the auto-backup function after DDR2 SDRAM DIMM was properly installed. If you don't need the auto-backup function, please leave it unchanged.



CN3

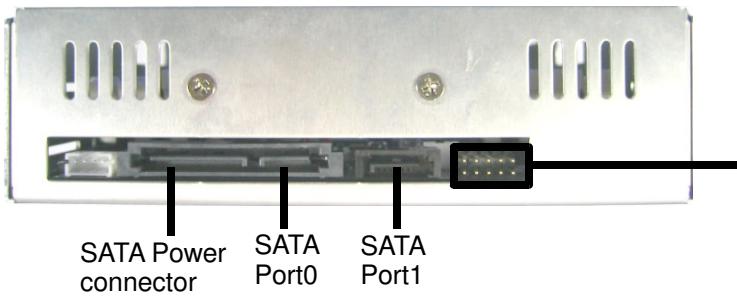


4. Close the upper cover with four screws



Jumper Setting

There are jumpers on the rear site of the ANS-9010. Refer to the following descriptions to set jumper according to your application.



- SATA Port0, Port1 working mode
- Reserved
- Reserved
- SATA transfer rate
- Reserved

1. SATA Port0, Port1 working mode

Open: Single mode (default)

Through the SATA port0, we can access the total capacity of DDR2 SDRAM DIMM. SATA port1 will be disabled.

Short: Dual mode

Each SATA ports can be accessed to one disk with half capacity of total DDR2 SDRAM DIMM. With this mode enabled, we can double the data transfer rate by configure them as a RAID0 (stripping) logical disk if the SATA host supports RAID function.

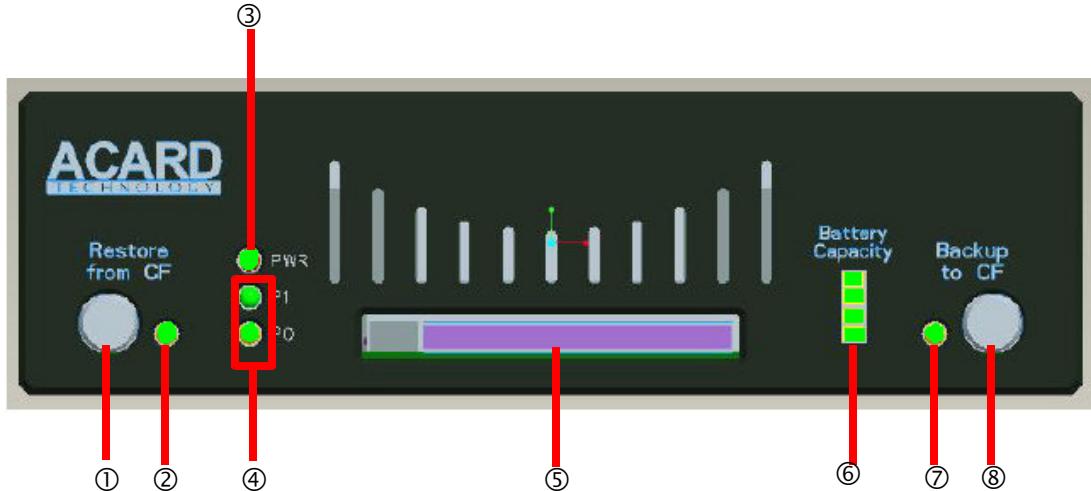
2. SATA port transfer rate

For various application environment, the ANS-9010 was allowed to set the SATA transfer rate to higher performance one (3.0Gbps) or higher compatibility/stability one(1.5Gbps) if your SATA controller doesn't work well with ANS-9010.

Open: SATA 3.0Gbps(default)

Short: SATA 1.5Gbps

ANS-9010 Panel



① Restore from CF button, push this button to trigger an immediately restore and overwrite the data in memories (refer to restore and backup procedures for detail operation)

② Restore LED indicator

LED Status	Description
Steady Green for 5 seconds	CF card is ready to be manually restored
Blinking Green	CF card is under restoring
Blinking Green per 4 seconds	Restore progress is under 30%
Blinking Green per 2 seconds	Restore progress is between 30%~60%
Blinking Green per 1 second	Restore progress is over 60%
OFF	Restore progress is complete

③ ANS-9010 Power LED

LED Status	Description
Steady Green	Power is ON
OFF	Power lose

④ P0 and P1 LED indicators

LED	Port	Port Status	LED Status
P0	SATA Port 0	SATA port is connected	Steady Green
		SATA port is being accessed	Blinking Green
P1	SATA Port 1	SATA port is connected	Steady Green
		SATA port is being accessed	Blinking Green

⑤ CF Socket

In order to use the maximum memory size, please must install CF which is larger then or equal to the total capacity of memories.

⑥ Battery Capacity indicators,

When the ANS-9010 was supplied with power, the battery will be automatically charging until it is full. As soon as the power lost, the battery will take over to supply power to controller and memories. And the controller will automatically backup data from memories to CF card (only if CF was connected and ready to be restored). If there is no CF card installed, the battery will support keep refresh data for memories until running out of battery.

⑦ Backup LED indicator

LED Status	Description
Steady Red	CF card is too small or damaged to backup
Steady Green	CF card is ready to backup; Backup progress is complete
Blinking Green	CF card is under backup
Blinking Green per 4 seconds	Backup progress is under 30%
Blinking Green per 2 seconds	Backup progress is between 30%~60%
Blinking Green per 1 second	Backup progress is over 60%
OFF	No CF card inserted

- ⑧ Backup to CF button, push this button to trigger an immediate backup and overwrite the data in CF card. (refer to restore and backup procedures for detail operation)

ANS-9010 restore and backup procedures

SATA Power	Condition Check		Working Type	Functioning in ANS-9010
CF exist	CF capacity >= RAM Size			
Power On	Yes	Yes	Auto	ANS-9010 will take the total memory size as RAM disk size. Also it will auto restore data from CF to RAM if it has been successfully backed up.
		No		ANS-9010 will take the total memory size as RAM disk size. Restore and backup function will be disabled
	No	N/A		ANS-9010 will take the total memory size as RAM disk size. Restore and backup function will be disabled
Power lost	Yes	Yes	Manual	In some cases, we have to force data restore from new inserted CF to memory, push the restore button for 3 seconds as soon as the CF was detected and the restore LED is in status of steady green (5 seconds only). And ANS-9010 will take the total memory size as RAM disk size and start to copy data from CF to memory. On the other hand, if we want to manually backup data from RAM to CF, push the backup button for 3 seconds when the backup LED is in status of steady green. And ANS-9010 will start to backup data from RAM to CF.
				When the SATA power lost over 30 seconds, ANS-9010 will automatically backup data from memory to CF and power off
				ANS-9010 will keep data refresh in memory until running out of power. When the power is running out, the data will be lost.
Power lost		No		ANS-9010 will keep data refresh in memory until running out of power. When the power is running out, the data will be lost.