Stratos™ TwinSpark Adapter Manual

Stratos TwinSpark Adapter is designed for SE/30 PDS, not for the other Macintosh.

This manual explains to install Stratos TwinSpark Adapter, an accelerater, and a PDS card physically. About the function and set-up of it, please refer to its manual.

Mac SE/30 has the point of High Voltage. Therefore, an end-user is prohibited to open the case and install. Please entrust the install work to a specialty engineer.

Stratos TwinSpark Adapter does not work for itself, unless an accelerater card is installed. The adapter only is installed, then SE/30 does not boot-up.

If you have some questions, please mail to the adress...

E-mail: sakai@artmix.com

How about this manual

This manual is only for a specialty engineer. An end-user is prohibited to look and refer.

This manual has the bellow icons, which explain as the following:

This mark means that it is dangerous to injure you or to damage your periphral.

This mark means that the more detailed information is explained. You should skip it if you have the specialty for Macintosh.

The compatibility

Stratos TS adapter card is compatible with the following. The other PDS devise works maybe.

Accelerater

DayStar Digital Turbo040

DayStar Digital PowerCache Universal   P33 or later

Diimo Technology Diimo Cache

PDS divise

InterWare Vimage SE/30 (Avok)

XceedColor30, MacroColor30

Radius DirectColor30

(PIVOT Interface SE/30)

RasterOPS 283 for SE/30

SuperMac Spectrum SE/30

Asante MacCON30

Dayna PORT SI30

Falleron EtherPORT SE/30

Sonic SE/30 EtherCard

Open case and Preparation

You set SE/30 to the safe and static-electricity free place. Mouse, Keyboard and the other periphrals are removed from the connecters.

⚠️ TS Adapter, an accelerater and a PDS card are broken unless they were free from static-electricity. Particularly, an accelerater and TS Adapter has C-MOS devices, so you must handle with care.

This work needs the following tools:
MacOpener or T-15 torx wrench.
Monitor discharger. (or discharge spontaneously)
Plus screw driver. (No. 2)

❓ MacOpener is a generic name of the tool in order to open SE/30 or Mac Plus' case. You can get it at the Macintosh specialty shop.

You open the case of SE/30, using a MacOpener. From back side, you remove 4 piece of torx screws with adapting the driver end of MacOpener. As using the another end of MacOpener, you seperate the front bezel from the rear housing.

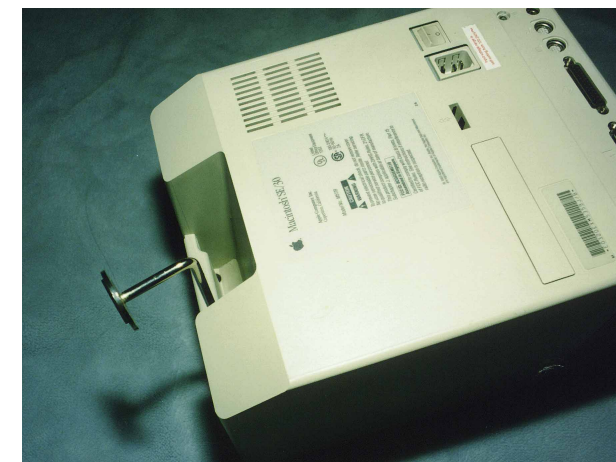❓ The rear housing is fixed tightly to the front bezel. You must take care of working.

Temporally an earth-band or a conductive glove for ESD should be removed.
Using a monitor discharger, you make the monitor of SE/30 discharged. If you do not have a monitor discharger, you have to make SE/30 leave about 24H to discharge spntaneously.

⚠️ Between the montor and the analog-board approximate 10,000V voltage is charged. Don't touch the monitor and the analog board unless discharged.
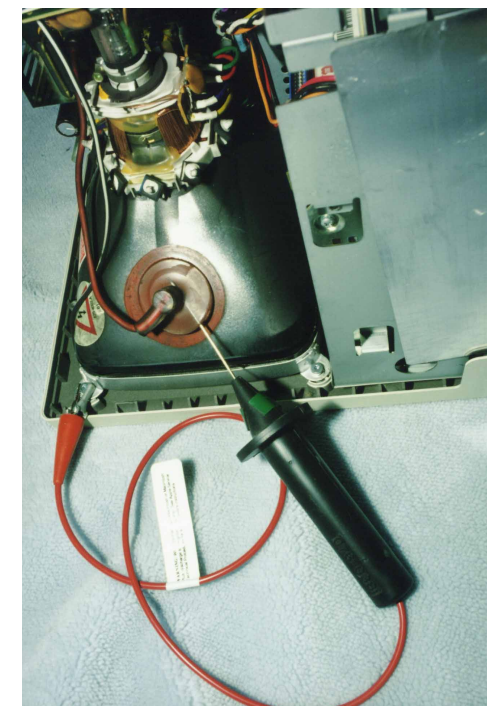
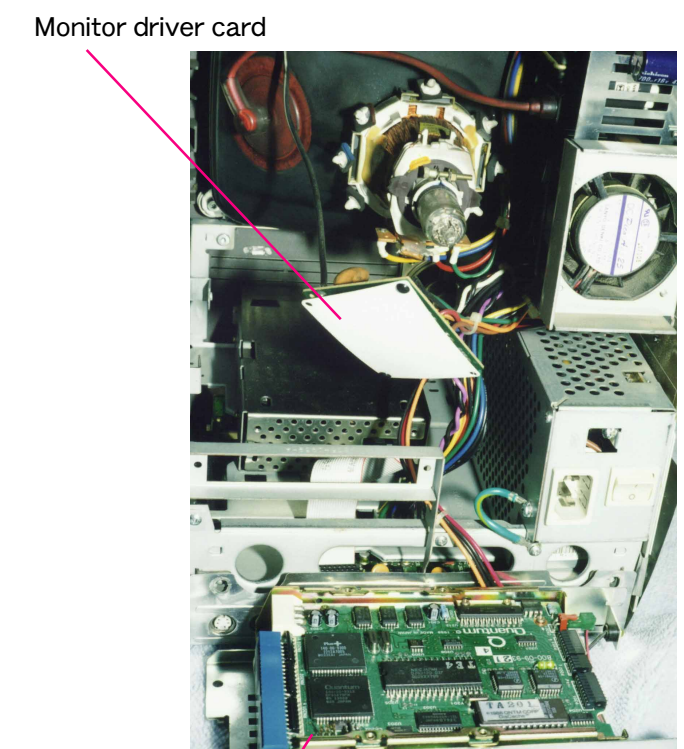The monitor video drive-card and the hard disk drive are removed.

MacOpener
Monitor discharger
Torx wrench

Removing the screw

Using MacOpener

Discharging by monitor discharger

Monitor driver card
Hard disk drive

Installation of TS Adapter

You confirm that Hi-Voltage of the monitor is certainly discharged.
ESD tools, an earth-band, a conductive glove, or a earth-mat, should be equiped.

⚠️ TS Adapter, an accelerater and a PDS card are broken unless they were free from static-electricity. Particularly, an accelerater and TS Adapter has C-MOS devices, so you must handle with care.

You confirm the hole of the frame for PDS slot. It maybe not found as SE/30 up-graded from SE. If yours were so, exchage the frame for SE/30's frame.

Adapter taken away from ESD bag is install to PDS connecter, setting the parts mounted side to the inner side. Put the Adapter between the frames, refering to the right picture.

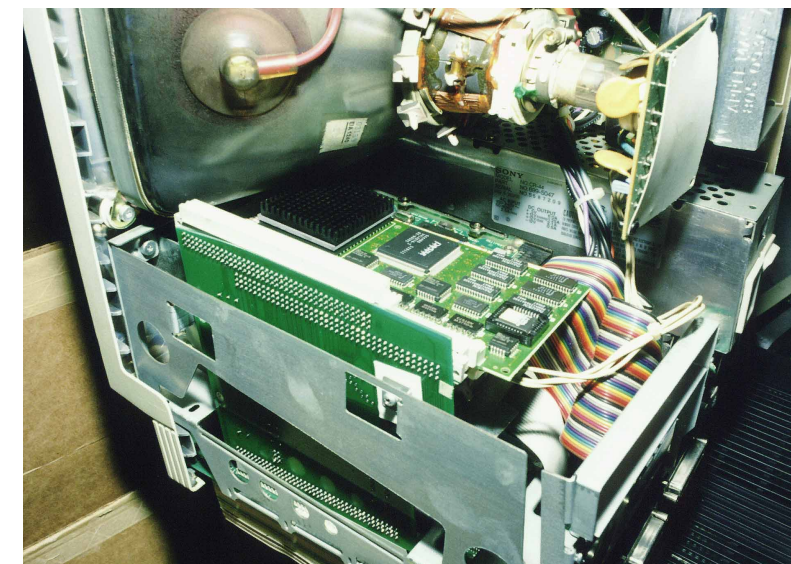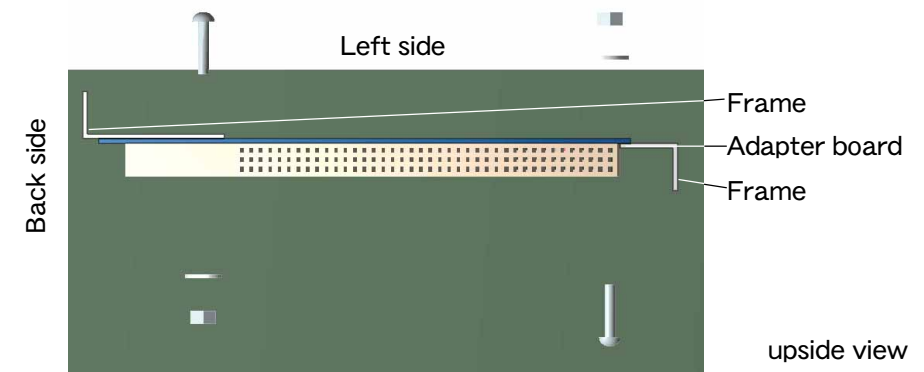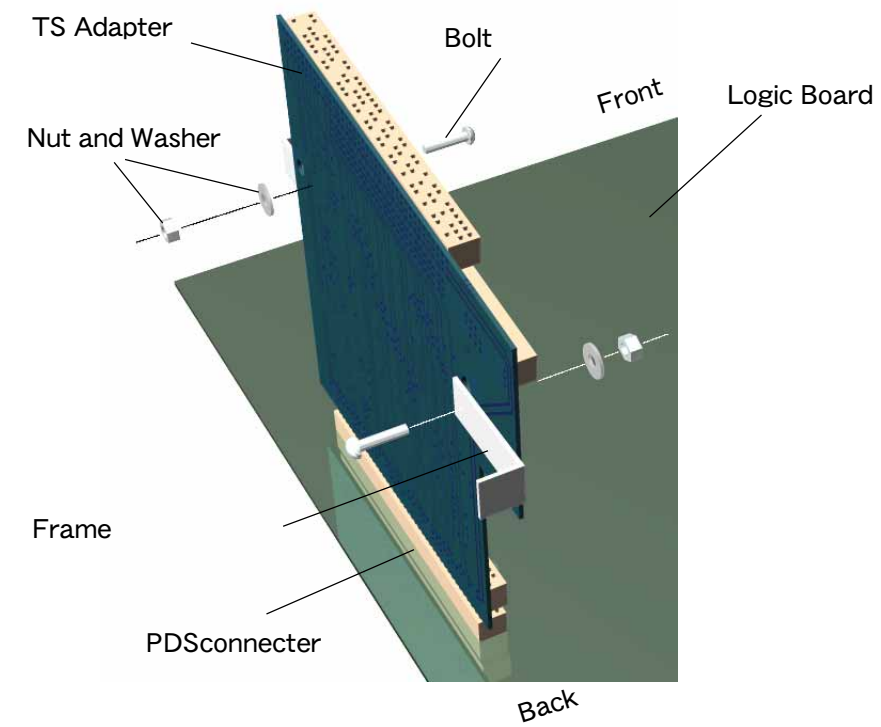You hold the adapter firmly with the belongings bolts, nuts and washers. The screws do not be strangled.

⚠️ Don't fix the screws too hard to break the adapter. If you are anxious about loosening the bolt, it may be effective to apply LOCTITE #262.

Return to install the hard disk drive.

❓ The jumper pin setting of the adapter should not be out of setting. (JP1=off, JP2 and 3=on, correctly.)

upside view

Install completed

Installation of an accelerater

An accelerater should be only installed to the Cache-connecter.
SE/30 do not boot-up unless an accelerator is installed surely.

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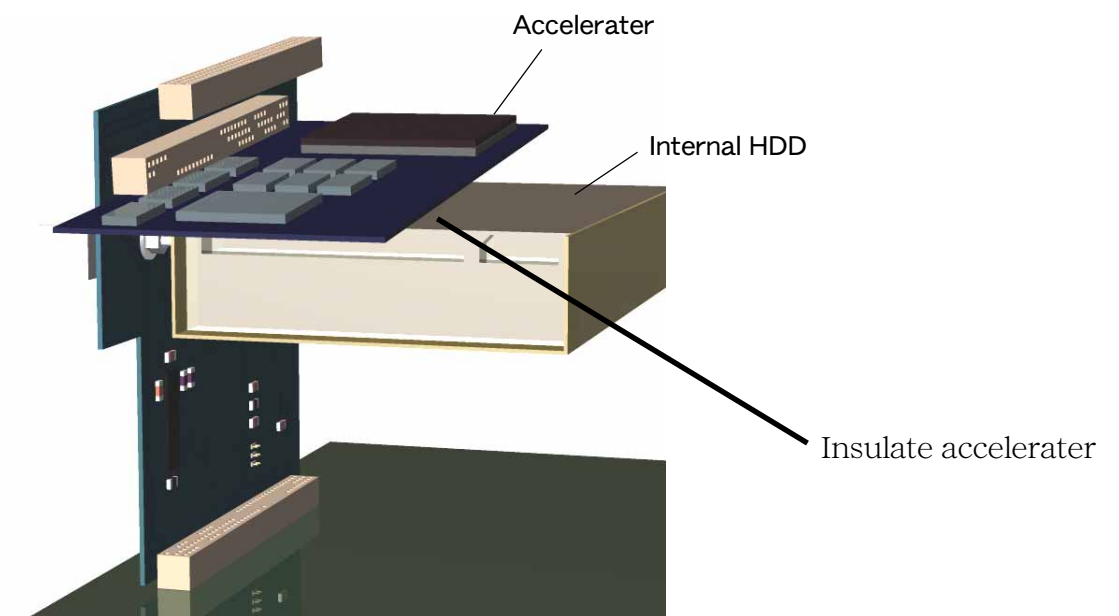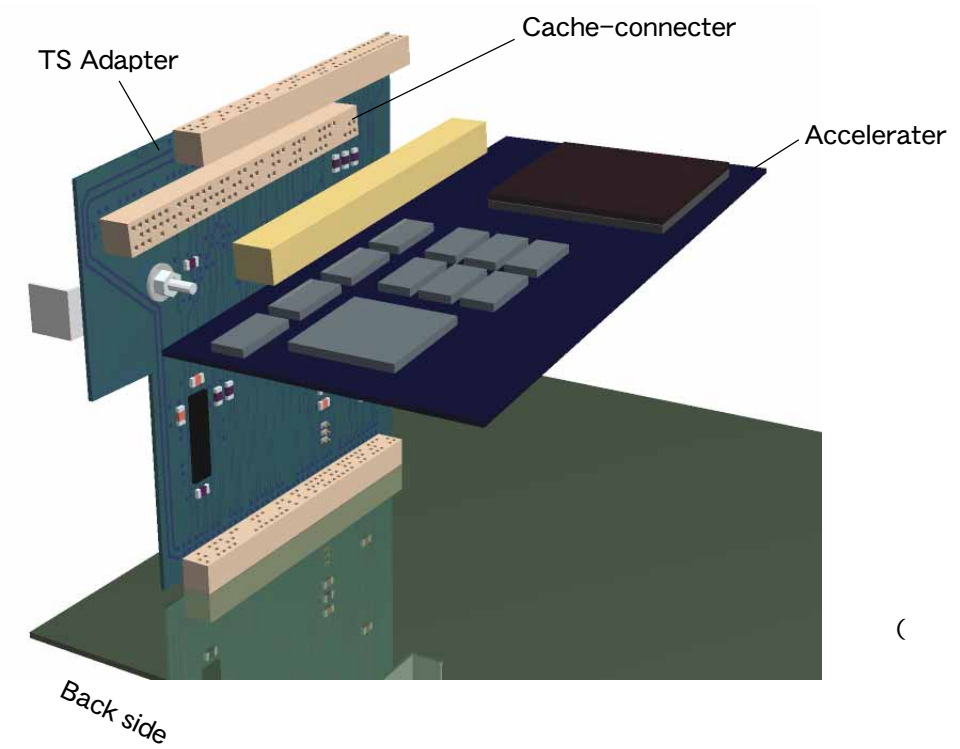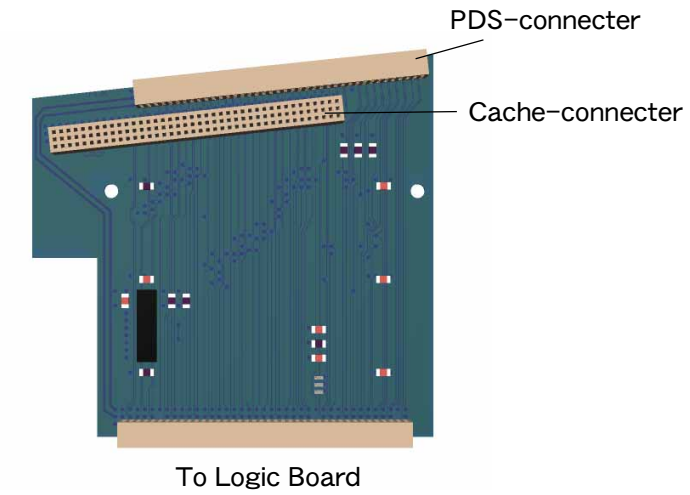
The side mounted MPU of an accelerater is turned up. And set an accelerater to the Cache-connecter.

A full hight hard disk unit may be interfered to install an accelerater. If so, please exchage the hard disk for lower profile one or make it external.

⚠ An accelerater has the point of exposed +5V power. It is danger to contact to the frame or the circuit of the hard disk. Please make the accelerater isulate.

PDS-connecter

Cache-connecter

To Logic Board

TS Adapter

Cache-connecter

Accelerater

Back side

Accelerater

Internal HDD

Insulate accelerater

Installation of PDS Card

A PDS card , video card or ethernet card, is installed toward PDS-connecter, cannot be installed Cache-connecter.

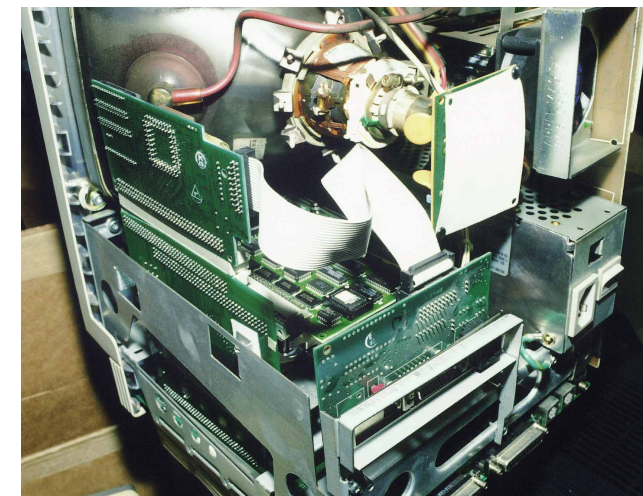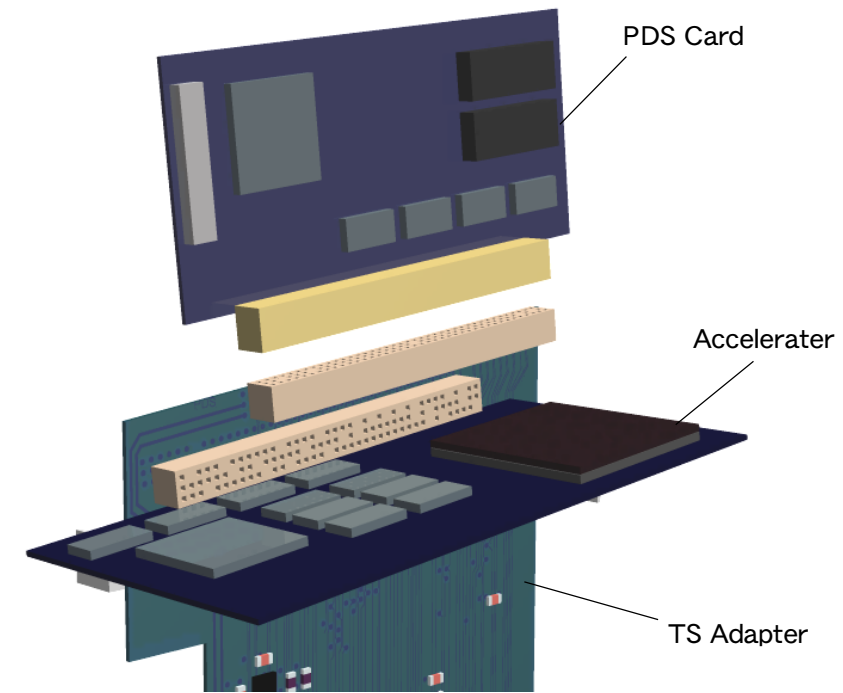A PDS card is optional, so SE/30 boot-up even if no card installed.

TS Adapter, an accelerater and a PDS card are broken unless they were free from static-electricity. Particularly, an accelerater and TS Adapter has C-MOS devices, so you must handle with care.

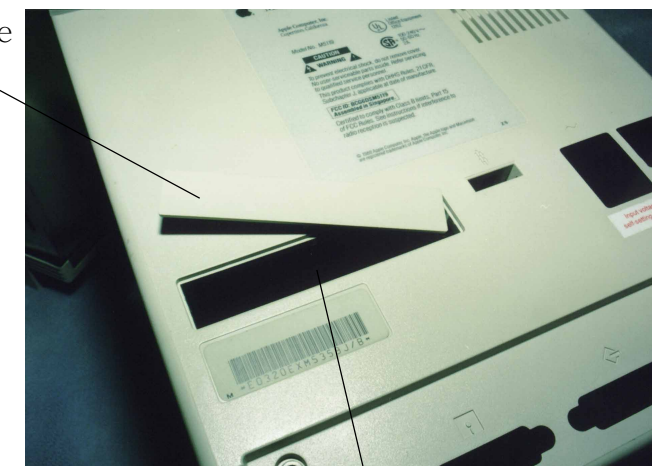SE/30 PDS is allowed to install only one card by the specification of Apple computer.

Xceed Color 30, Macro Color 30, and Color30HR is not compatible with Turbo040. Please apply PowerCache 030 CPU upgrade card.

A PDS card is installed toward the PDS connecter, the top of the adapter. The detailed installation refers to the manual of PDS card.

PDS Card

Accelerater

TS Adapter

PDS installation completed

As pushing from back side

External bay