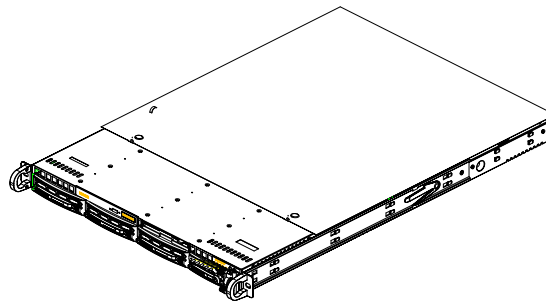
SUPERO®



# The SC813/SC813M Chassis Series

## Installation Guide

Rev. 1.0b

# Table of Contents

# Chapter 1- Introduction

## A. Packing Lists

### A-1 The SC813 chassis

**The SC813 chassis contains the following:**
One (1) Slim CD ROM Drive [CDM-TEAC-24(B)]
Four (4) SCA 1" drive trays [CSE-PT39-(B)]
One (1) Slim 3.5" floppy drive [FPD-TEAC-S(B)]
Two (2) 100mm Blowers [FAN-0059]
One (1) Cold-swappable 500W power supply [PWS-0048]
One (1) Power supply backplane [CSE-PT813-PD520 for the SC813T/S-500 Series]
One (1) Power supply backplane [CSE-PT813-PD524 for the SC813T/S-500C Series]
One (1) 4-port SATA backplane [CSE-SATA-813 (*for 813T)]
One (1) 4-port SCSI backplane [CSE-SCA-813S (*for 813S)]

**The accessory box contains the following:**
One set of motherboard screws
One set of drive screws
One set of HDD (hard disk drive) screws
One (1) AC power cord

**Rail Packaging includes:**

One pair of rear inner slides to be installed on the chassis
One pair of outer slides to be installed in the rack
Two pairs of short brackets to be used on the front side of the outer slides (Note: One pair of short brackets include screw threads, and the other pair do not. Use the only pair that will fit into your rack.)
One pair of long brackets to be used on the rear side of the outer slides

**Optional Kits include:**

The SC813 Series:

Riser Cards [CSE-RRIU-X]
Low Profile Riser Cards [CSE-RRIU-XLP]

Front Bezel [CSE-PTFB-813(B)]

The SC813C Series:
Riser Cards (64-Bit) [CSE-RRIU-X]
Riser Cards(32-Bit) [CSE-RR32]
Front Bezel [CSE-PTFB-813(B)]

**A-2 The SC813M chassis:**

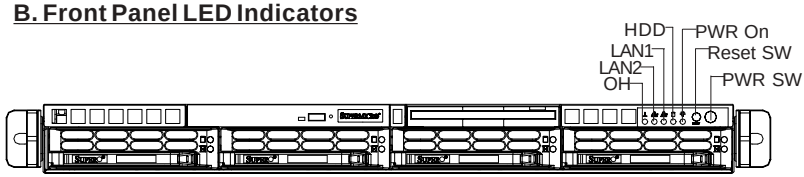
**The SC813M chassis contains the following:**
Four (4) SCA 1" drive trays [CSE-PT39(B)]
One (1) 350W Power Supply [PWS-042-24] (for the 350W Series)
One (1) 300 W Power Supply [PWS-0054] (for the 300W Series)
One (1) 420 W Power Supply [PWS-0053] (for the 420W Series)
Three (3) 40mm Fans [FAN-0061] (in the 300W & 350W Series)
Four (4) 40mm Fans [FAN-0061] (in the 420W & 500W Series)
One (1) 4-port SATA backplane [CSE-SATA-813] (*for the 813MT Series)]
One (1) 4-port SCSI backplane [CSESCA-813S] (*for the 813MS Series)]

**The accessory box contains the following:**
One set of motherboard screws
One set of drive screws
One set of HDD (hard disk drive) screws
One (1) AC power cord

**Rail Packaging includes:**
One pair of rear inner slides to be installed on the chassis
One pair of outer slides to be installed in the rack
Two pairs of short brackets to be used on the front side of the outer slides (Note: One pair of short brackets include screw threads, and the other pair do not. Use the only pair that will fit into your rack.)
One pair of long brackets to be used on the rear side of the outer slides

**Optional Kits include:**
The SC813M Series:
Riser Cards(64-Bit) [CSE-RRIU-X] or Riser Cards(32-Bit) [CSE-RR32-1U]
Front Bezel [CSE-PTFB-813(B)]

## B. Front Panel LED Indicators




**(SC813/SC813M Front Panel)**

## C. Specifications of the SC813/SC813M Chassis

### C-1. Specifications of the SC813 Chassis

| Model | SC813S-500/500C | SC813T-500/500C |
|---|---|---|
| **Form Factor** | 1U Rackmount | 1U Rackmount |
| **CPU Support** | Dual Xeon Processors | Dual Xeon Processors |
| **Max. Motherboard Size** | ATX 12" x 13" | ATX 12" x 13" |
| **Expansion Slots** | 2/1 | 2/1 |
| **SCA or HD Bays** | Four 1"hot-swap Ultra 320/160 SCSI drive bays (SAF-TE Compliant) | Four 1"hot-swap SATA bays |
| **Front Side USB Port &COM port** | Optional | Optional |
| **Floppy/CD-ROM** | Yes/Yes | Yes/Yes |
| **Power Supply** | 500W cold-swap PS | 500W cold-swap PS |
| **Cooling System** | Two 100mm blower fans | Two 100mm blower fans |
| **Dimension (W x H x D)** | 17.2" x 1.7" x 25.6" (437mm x 43mm x 650 mm) | 17.2" x 1.7" x 25.6" (437mm x. 43mm x 650mm) |
| **Weight** | 35 lb. (15.9 kg) | 35 lb. (15.9 kg) |
| **Optional Kits** | Riser Cards, Front Bezel | Riser Cards, Front Bezel |

### C-2. Specifications of the SC813M Chassis

| Model | SC813MS-350C | SC813MT-350C |
|---|---|---|
| **Form Factor** | 1U Rackmount | 1U Rackmount |
| **CPU Support** | Dual Xeon Processors | Dual Xeon Processors |
| **Max. Motherboard Size** | ATX 12" x 10" | ATX 12" x 10" |
| **Expansion Slots** | 1 | 1 |
| **SCA or HD Bays** | Four 1"hot-swap Ultra 320/160 SCSI drive bays (SAF-TE Compliant) | Four 1"hot-swap SATA bays |
| **Front Side USB Port & COM port** | Yes | Yes |
| **Floppy/CD-ROM** | No/No | No/No |
| **Power Supply** | 420W/350W/300W PS | 420W/350W/300W PS |
| **Cooling System** | Three (3) 40mm blower fans | Three (3) 40mm blower fans |
| **Dimension (W x H x D)** | 17.2" x 1.7" x 19.9" (437mm x 43mm x 505.5 mm) | 17.2" x 1.7" x 19.9" (437mm x 43mm x 505.5 mm) |
| **Weight** | 30 lb. (13.6 kg) | 30 lb. (13.6 kg) |
| **Optional Kits** | Riser Card, Front Bezel | Riser Card, Front Bezel |

## D. Power Supply Specifications of the SC813/SC813M Chassis

### D-1. Power Supply Specifications of the SC813 Chassis

| Power Supply Spec | SC813 |
|---|---|
| | |
| Mfr. Model # | SP502-IS |
| Mfr. Part # | PWS-048 |
| Rated AC Input Voltage | 100-240V AC |
| Rated Input Frequency | 50-60 Hz |
| Rated Input Current | 10A (115V) |
| | 5A (230V) |
| Rated Output Power | 500W |
| Maximum rated BTU | 2750 BTUs/Hr |
| Nominal Output Vlotage | |
| +3.3V | 20A |
| +5 | 20A |
| +12 | 36A |
| -5 | N/A |
| -12 | 1A |
| +5Vsb | 2A |

### D-2. Power Supply Specifications of the SC813M Chassis

| Serial # | 300W Series | 350W Series | 420W Series |
|---|---|---|---|
| Mfr. Model # | SP302-IS | FSP350-60IU | SP423-IS |
| Mfr. Part # | PWS-0054 | PWS-042-24 | PWS-0053 |
| Rated AC Input Voltage | 100-240V AC | 100-240V AC | 100-240V AC |
| Rated Input Frequency | 50-60 Hz | 50-60 Hz | 50-60 Hz |
| Rated Input Current | | 6A (115V) | |
| | | 3A (230V) | |
| Rated Output Power | 300W | 350W | 420W |
| Maximum rated BTU | | 1841 BTUs/Hr | |
| Nominal Output Vlotage | | | |
| +3.3V | 15A | 20A | 18A |
| +5V | 15A | 25A | 18A |
| +12V1 | 15A | 20A | 15A |
| +12V2 | 15A | N/A | 15A |
| +12V3 | N/A | N/A | 18A |
| +12Vtotal | 20A | 20A | 32A |
| -5V | N/A | 0.3A | N/A |
| -12V | 1A | 0.8A | 1A |
| +5Vsb | 2A | 2A | 2A |

# Chapter 2: Installation Procedures

## Section 1: Installing Components into the SC813 Chassis

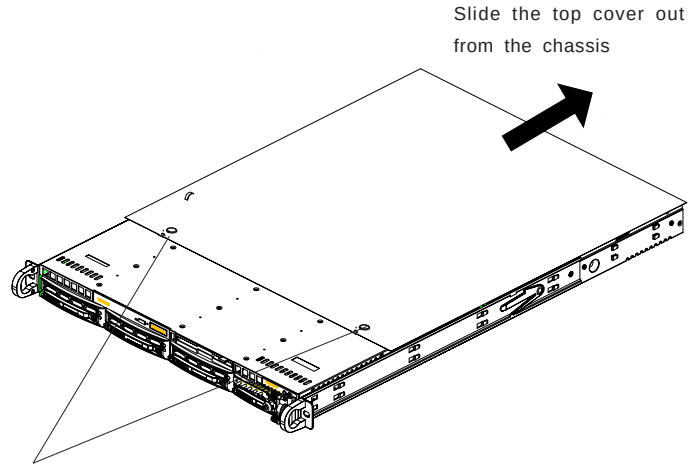
### A. Removing the top cover from the chassis

Before installing any components, replacing chassis fans or accessing the motherboard, you will first need to remove the top cove from the chassis.

**Procedures**

1. Press the release tabs to release the top cover from its locking position.

2. Slide the top cover out from the chassis as shown below:




3. You can now lift the side cover up and off the chassis.

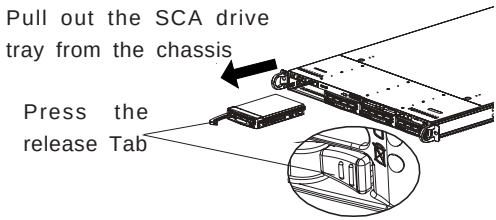
## B. Accessing the SCA Drive Tray and Installing a Hard Drive

To install the SCA drive into the chassis, you need to first remove the SCA drive tray from the chassis so that the SCA drive can be installed in.

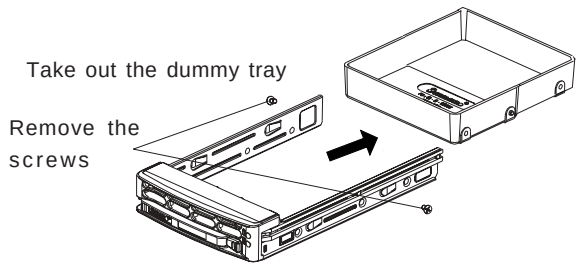
**Procedures**

1. Press the release tab to release the SCA drive tray from its locking position.

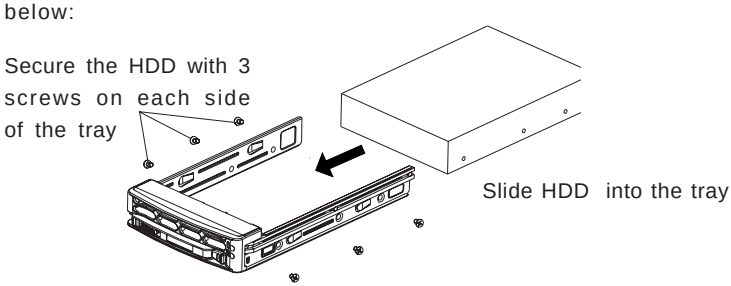
2. Pull the SCA drive tray out from the chassis as shown below:




3. Remove the two screws that attach to the both sides of the dummy tray, and take out the dummy tray as shown below:




4. Slide a hard drive disk (HDD) into the SCA drive tray, and secure the HDD to the tray with three screws on each side of the tray as shown below:




5. Once the HDD is securely placed into the SCA tray, you can install the SCA drive tray back to the chassis.

## C. Rail Installation

**Rail Packaging includes:**

*One pair of inner slides to be installed on the chassis,
*One pair of outer slides to be installed in the rack,
*Two pairs of short brackets to be used on the front side of the outer slides (Note: One pair of short brackets include screw threads, and the other pair do not. Use the only pair that will fit into your rack.),
*One pair of long brackets to be used on the rear side of the outer slides

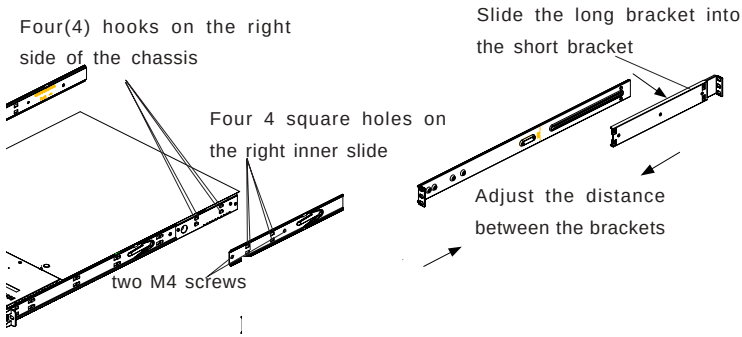
### C-1 Installing Inner Slides

**Procedures**

1. Locate the right inner slide, (-the slide that will be used on the right side of chassis when facing the front panel of the chassis).

2. Align the four(4) square holes on the right inner slide against the hooks on the right side of the chassis as show below on the left.

3. Securely attach the slide to the chassis with two M4 flat head screws and repeat the steps 1-3 to install the left inner slide to the left side of the chassis.




### C-2 Installing Outer Slides

1. Measure the distance from the front rail of the rack to the rear rail of the rack.

2. Attach a short bracket to the rear side of the right outer slide, and a long bracket to the front side of the right outer slide as shown above on the right.

3. Adjust the short and long brackets to the proper distance so that the chassis can snugly fit into the rack.

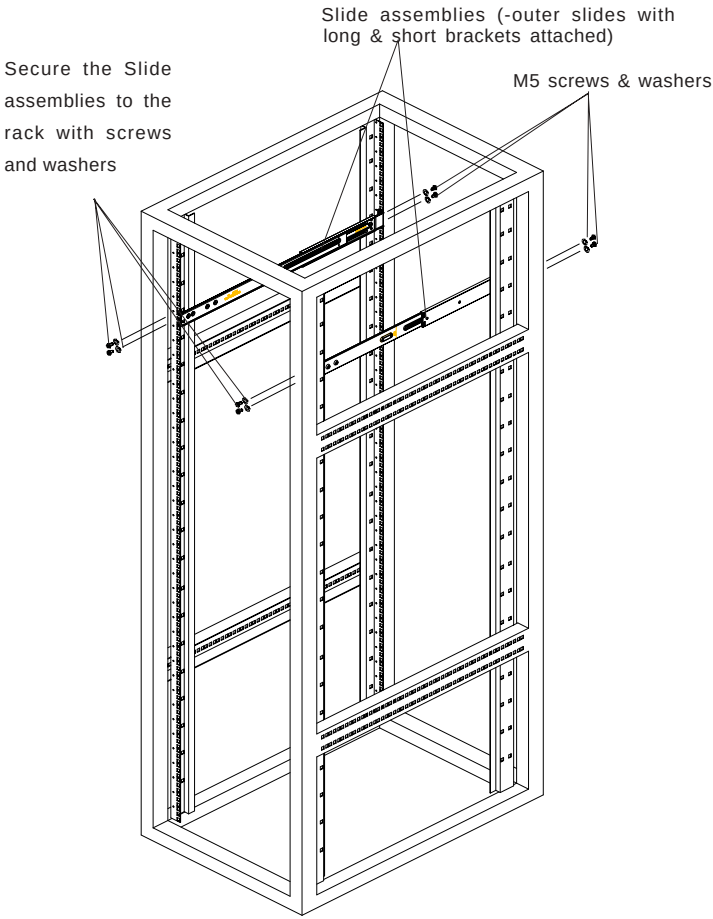
4. Secure the slides to the cabinet with screws. Repeat steps 1-4 for the left outer slide.

## C-3 Installing the Slide Assemblies to the Rack

**Procedures**

1. After you have installed the short and long brackets to the outer slides, you are ready to install the whole slide assemblies (-outer slides with short and long brackets attached) to the rack. (See the previous page.)

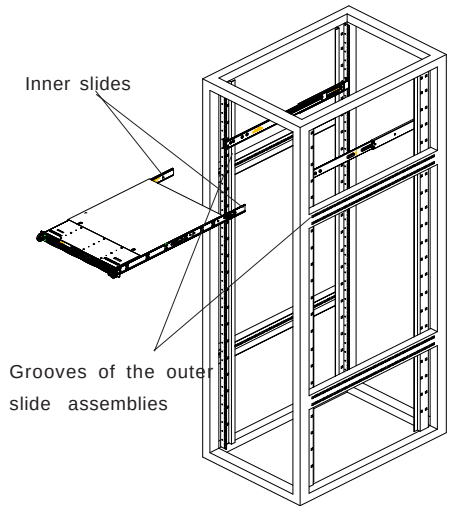
2. Use M5 screws and washers to secure the slide assemblies into the rack as shown below:



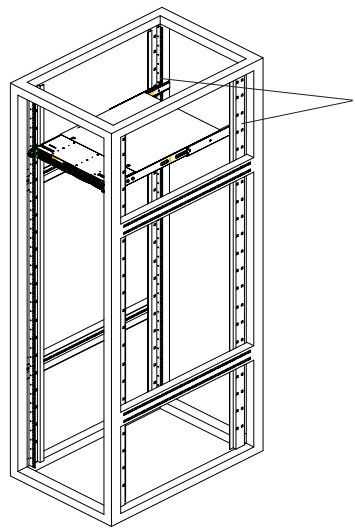
## D. Installing the Chassis into the Rack

### Procedures

1. Push the inner slides, which are attached to the chassis, into the grooves of the outer slide assemblies that are installed in the rack as shown below:




2. Push the chassis all the way to the back of the outer slide assemblies as shown below: (The plastic bezel is not included in the package.)



# Section 2: SCSI (Super) GEM Driver Installation Instructions for Windows OS

**Please refer to the following instructions to install the SCSI GEM Driver for the Windows OS systems.**

(*Note: This driver is not necessary for other Operating Systems. If you have two SCA backplanes, you will need to install the driver twice.)

The driver is located on the Super Micro motherboard driver CD or is available for download from our FTP site: ftp://ftp.supermicro.com/driver/Qlogic/

Follow the procedure below to install this driver to your system.

## Installing the driver:

1) Right click on “My Computer” and choose “Property”.
2) Select “Hardware” tab and click on “Device Manager”.
3) Open “Other Devices” or wherever “GEM318” is on.
4) Right click on this device and choose “Property”.
5) Click on “Driver” tab and choose “Update Driver”.
6) Click “Next” 2 times, uncheck both “Floppy disk drives” and “CD-ROM drives”. Then, select the item- “Specify a location,” and choose “Next”.
7) Click on “Browse” and choose D drive or wherever Supermicro Setup CD is in.
8) Choose “Qlogic” folder and click on “Open”.
9) System will automatically detect GEM318 and install the drive from this point on.

or,

1) Right click the "My Computer" icon on your desktop and choose Properties.
2) Click on the Hardware tab and click on "Device Manager" to bring up the list of system devices.
3) You may see one or two yellow question marks (?) that read QLogic GEM354 or GEM318 SCSI Processor Device. Right click on these, and choose to uninstall. If two such question marks are present, uninstall both.
4) Click on Action tab and choose "Scan for Hardware Changes". The Hardware Wizard program should start up. Click "Next".
5) At the first prompt, choose “Display a list of known device drivers for the device so that I can choose a specific driver” and click "Next".
6) Choose “Other Devices” and click Next.
7) Choose “Have Disk”, and specify your floppy drive location in the options box. Then, click "Next".
8) Highlight “Enclosure Services Device” and click "Next".
9) Ignore the warning prompt by clicking "Yes".

# SC813M Chassis

# Adding a Floppy Drive

## 1-1 Overview

The SC813M series of chassis includes the SC813MS-420C, the SC813MT-420C, the SC813MS-300C and the SC813MT-300C. These chassis come equipped with a front side USB/COM port tray as part of the standard configuration. Supermicro has designed the SC813M series so that the USB/COM port tray can be replaced with a slim floppy drive. This addendum describes the process involved to remove the front side USB/COM port tray and replace it with a slim floppy drive.

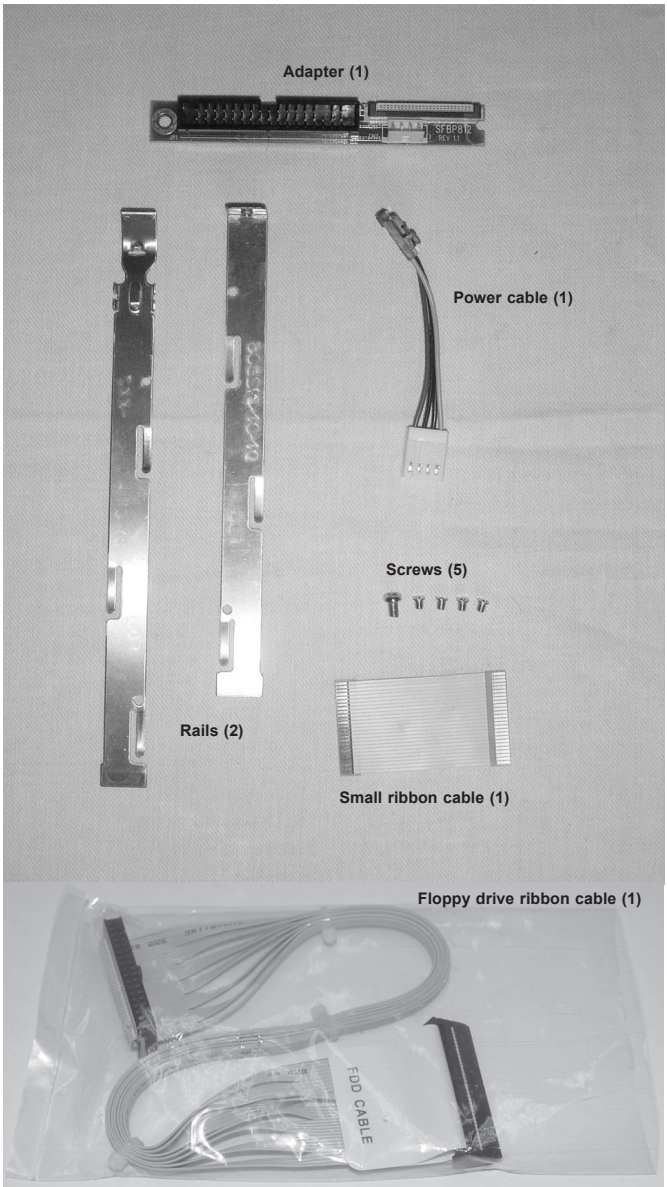
### Floppy Kit

Before installing a slim floppy drive, you must obtain a floppy kit from your Supermicro representative and a slim floppy drive (not included in the kit). The items included in the floppy kit are listed below and shown in Figure 1.

The floppy kit contains:

- One (1) floppy drive adapter
- Two (2) floppy drive rails
- One (1) floppy drive ribbon cable (to motherboard)
- One (1) small ribbon cable (to adapter)
- One (1) power cable
- Five (5) screws (one large, four small)

**Figure 1-1. Floppy Kit**



## 1-2 Installation Procedure

Following the steps in the order given will eliminate the most common problems associated with this install. Before beginning, you should power down the system and remove the power cord.

### Removing the Front Panel USB/COM Port Tray

1. With the power removed from the system, first remove the top chassis cover (refer to the system manual for help).

2. A COM2 and one or two USB cables run from the tray to the motherboard. Detach these cables from the motherboard.

3. Find the release tab at the rear left of the USB/COM port tray. Push this tab in to unlock the tray, then push the tray out through the front of the chassis, along with the cables you just detached from the motherboard and which are still attached to the ports at the front of the tray.

### Assembling the Floppy Kit

Check that all the items shown on the previous page have been included in your floppy kit.

1. Attach the two rails to the sides of the floppy drive with the four small screws.

2. Connect the small ribbon cable included in the kit to the appropriate connector on the floppy drive.

3. Use the large screw to attach the adapter to the back of the floppy drive so that the connected ribbon cable lines up with the CN1 connector on the adapter. Attach the other end of the small ribbon cable to the CN1 connector on the floppy drive adapter.

## Installing the Assembled Floppy into the Chassis

You are now ready to install the assembled floppy drive into the chassis

1. Insert the assembled floppy drive into the open space where the front panel tray used to be. Push it in until it locks into place.

2. Attach the white header on the floppy power cable to the drive and the black header to the floppy adapter (see Figure 1-2).

3. Connect the large (34-wire standard) floppy ribbon to the floppy adapter and route it through the chassis to connect it to the floppy connector on the motherboard. Make sure you route this cable in such a way that it does not block airflow or touch other components and is not close to any fans.

4. Replace the top chassis cover and plug in the power cord.

5. Power up the system. Press the <Del> key on system boot to access the BIOS Setup utility. In the appropriate section (usually the Main BIOS Setup) set the type of floppy installed in the "Floppy Drive" or "Legacy Diskette A" setting.

6. Exit and save changes from BIOS and allow the computer to boot up completely.

7. Insert a floppy diskette into the floppy drive and try to access it to verify it has been correctly installed.

**Figure 1-2. Connecting the Power Cable**