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# Service Manual

**DDP Server**

<b>Read and keep this manual.</b>
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| <ul style="list-style-type: none"><li>• Read safety instructions carefully and understand them before starting your operation.</li><li>• Keep this manual at hand for reference.</li></ul> |
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*Version 3.1*

*N905383*



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All specifications are subject to change without notice.

# Revision Table

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3.0	-	1:Version	14.Apr.06
		2:Revised the years of Copyright, Date	
		3:Added "Revision Table".	
		6:Changed the words (DDP Server CD-ROM -> DDP Server Manual CD-ROM)	
		10:Added the explanation of Hardware Version of FH2410.	
		12-13: Added the explanation of Component Overview of FH2410.	
		16:Added FH2410 Circuit Diagram.	
		17:Changed the words (DDP Server CD-ROM -> DDP Server Manual CD-ROM)	
		18-19:Added the explanation of Operator Panel of FH2410.	
		23:Added the components of FH2410.	
		24:Added the title. (The case of ProfiRIP DDP / CM)	
		25:Added the explanation of the case of FH2410.	
		26:Changed the title.(Adapter Card Bascket for ProfiRIP DDP / CM)	
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		21:Added the waring in German.	
		34:Added the waring in German.	
		36:Added the caution in German.	
		37:Added the caution in German.	
		46:Added the the explanation of netwaork cables in German.	

# Safety Summary

The hazard warnings which appear on the warning labels on the machine or in the manual have one of the following alert headings consisting of an alert symbol and a signal word, DANGER, WARNING, or CAUTION.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



**DANGER:** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING:** indicates a potentially hazardous situation which, if not avoided, can result in death or serious injury.



**CAUTION:** indicates a hazardous situation which, if not avoided, will or can result in minor or moderate injury, or serious damage of product.

**CAUTION:** indicates a potentially hazardous situation which, if not avoided, may result in property damage.

## ⚠ General Safety Guidelines

Before operating the machine, read the following instructions carefully:

- Follow all the operating procedures provided in this manual.
- Pay special attention to and follow all the hazard warnings on the machine and in the manual. Failure to do so can cause injury to yourself or damage to the machine.
- Do not perform any operation or action in any way other than as provided in this manual.
- Keep in mind that the hazard warnings in this manual or on the machine cannot cover every possible case, as it is impossible to predict and evaluate all circumstances beforehand.

Be alert and use your common sense.

## **Hazard Warning Statements**

The following are the hazard warning statements contained in this manual.

### **⚠️ *Warning Statements***

- Make sure to follow the cabling instructions contained in the DDP Server User's Guide. Carefully observe the safety warnings contained in the DDP Server User's Guide.
- Never open the cover and exchange components as long as the power cord is connected.
  - To avoid damage to sensitive electronic components, handle components in an ESD-proved area. If an ESD-proved workplace is not available, use a grounded wrist strap during disassembly and assembly of electronic components.
  - Apply moderate force only when shifting the top cover to the front, otherwise one or more plastic bolts may break. The cover can be pushed easily forward when the bolts are correctly positioned.
  - Mixing up the Ethernet cards may prevent the DDP Server from printing.

## **Safety Precautions**

To avoid an electric shock, personal injury and/or damage of the DDP Server carefully observe the following safety precautions:

### **⚠ *WARNING: Check the Supply Voltage***

Check the local supply voltage before plugging the DDP Server power cord into the electrical outlet. If the supply voltage does not match the range which is indicated on the rating label, do not connect the DDP Server to the mains supply and contact your local dealer for support.

### **⚠ *WARNING: Do Not Open the Enclosure***

The DDP Server enclosure may not be opened except by a qualified service technician. The service technician must switch the DDP Server off and unplug the mains supply before opening the enclosure.

### **⚠ *WARNING: Connect the Network Ports Properly***

The network ports are intended for connecting the DDP Server to an Ethernet network and to the front and rear engines only. Do not attempt to connect any of the network ports to a telecommunication network, i.e. to a telephone line.

### **⚠ *CAUTION: Keep Mobile Phones Away***

Do not operate a mobile phone close to the DDP Server. It may disturb proper operation of the DDP Server.

### **⚠ *WARNING: Use Recommended Batteries Only***

The DDP Server contains a Lithium battery. The battery may explode if incorrectly replaced. Do not short-circuit the battery. Do not dispose of the battery in fire. Do not attempt to disassemble the battery. Keep the battery out of reach of children.

Dispose of used batteries according to the manufacturer's instructions.

# Sicherheitshinweise

Die Gefahrenhinweise, die sich auf Warnschildern am Gerät oder im Handbuch befinden, sind besonders gekennzeichnet. Die Kennzeichnung besteht aus einem Gefahrensymbol und einem der Begriffe GEFAHR, WARNUNG oder VORSICHT.



Dies ist das Gefahrensymbol. Es wird benutzt, um Sie vor potentiellen Verletzungsgefahren zu warnen. Beachten Sie alle Sicherheitshinweise, die diesem Symbol folgen, um sich vor möglicher Verletzung oder Tod zu schützen.



**GEFAHR:** bezeichnet eine drohende Gefahrensituation welche, falls sie nicht vermieden wird, zu Tod oder schwerer Verletzung führt.



**WARNUNG:** bezeichnet eine potentielle Gefahrensituation welche, falls sie nicht vermieden wird, zu Tod oder schwerer Verletzung führen kann.



**VORSICHT:** bezeichnet eine Gefahrensituation welche, falls sie nicht vermieden wird, zu kleinen oder mittelschweren Verletzungen oder erheblichem Schaden am Produkt führen wird oder führen kann.

**VORSICHT:** bezeichnet eine potentielle Gefahrensituation welche, falls sie nicht vermieden wird, zu Schäden führen kann.



## Allgemeine Sicherheitsrichtlinien

Bitte lesen Sie die folgenden Anweisungen aufmerksam durch, bevor Sie das Gerät benutzen:

- Befolgen Sie alle Verfahren, die in diesem Handbuch beschrieben werden.
- Beachten und befolgen Sie insbesondere die Gefahrenhinweise am Gerät und im Handbuch. Mißachtung kann zu Verletzungen und Schäden führen.
- Benutzen Sie das Gerät zu keinem anderen Zweck und betreiben Sie es in keiner anderen Weise, als es in diesem Handbuch beschrieben wird. Rufen Sie in Zweifelsfällen den zuständigen Techniker.
- Denken Sie daran, daß die Gefahrenhinweise in diesem Handbuch und am Gerät nicht jeden möglichen Fall berücksichtigen können, da die jeweiligen Umstände nicht vorhersehbar sind.

Seien Sie wachsam und benutzen Sie Ihren gesunden Menschenverstand.

## **Sicherheitshinweis**

Die folgenden Sicherheitshinweise sind in diesem Handbuch enthalten.

### **⚠ Sicherheitshinweis**

- Befolgen Sie unbedingt die Verkabelungsanweisungen aus dem DDP- Server Bedienerhandbuch.  
Befolgen Sie sorgfältig die Sicherheitswarnungen, die im DDP-Server Bedienerhandbuch enthalten sind.
- Öffnen Sie nie die Abdeckung und tauschen Sie keine Bestandteile aus, solange das Netzanschlußkabel angeschlossen ist.
  - Um Beschädigung der empfindlichen elektronischen Bauelemente zu vermeiden, arbeiten Sie nur an einem elektrostatischen Arbeitsplatz mit den Komponenten. Wenn kein elektrostatischer Arbeitsplatz vorhanden ist, benutzen Sie mindestens ein Handgelenk - Erdungsband während der Zerlegung und des Zusammenbaus der elektronischen Bauelemente.
  - Wenden Sie nur gemäßigte Kraft auf, um die obere Abdeckung zur Vorderseite zu schieben, andernfalls können ein oder mehrere Plastikschaubolzen brechen. Wenn die Schraubbolzen sich in der richtigen Position befinden, kann die Abdeckung leicht nach vorn gedrückt werden.
  - Durch das Mischen der Ethernet-Karten könnte das Drucken des DDP- Servers verhindert werden.

## **Sicherheitsvorkehrungen**

Vermeiden Sie elektrischen Schlag, Verletzungen und/oder Beschädigung des DDP Servers, indem Sie die folgenden Sicherheitsvorkehrungen genau befolgen:

### **⚠ *WARNUNG: Prüfen Sie die Netzspannung***

Prüfen Sie die örtliche Netzspannung, bevor Sie die Netzleitung des DDP Servers mit der Steckdose verbinden. Falls die Netzspannung nicht mit den Angaben auf dem Typenschild übereinstimmt, schließen Sie den DDP Server nicht an das Stromnetz an und wenden sich bitte an Ihren Händler.

### ***WARNUNG: Öffnen Sie nicht das Gehäuse***

Das DDP Server-Gehäuse darf nur von einem qualifizierten Servicetechniker geöffnet werden. Der Servicetechniker muß vor dem Öffnen des Gehäuses den DDP Server ausschalten und den Netzstecker ziehen.

### ***WARNUNG: Schließen Sie das Netzwerk richtig an***

Die Netzwerkanschlüsse dienen ausschließlich zur Verbindung des DDP Servers mit einem Ethernet-Netzwerk sowie mit Front Engine und Rear Engine. Um elektrischen Schlag und Verletzungen zu vermeiden, versuchen Sie keinesfalls, den DDP Server an ein Telekommunikationsnetz (d.h. Telefonleitung) anzuschließen.

### ***VORSICHT: Halten Sie Mobiltelefone fern***

Betreiben Sie kein Mobiltelefon in der Nähe des DDP Servers. Es könnte die Funktion des DDP Servers stören.

### ***WARNUNG: Benutzen Sie empfohlene Batterien***

Der DDP Server enthält eine Lithium-Batterie. Die Batterie kann bei unsachgemäßem Austausch explodieren.. Schließen Sie die Batterie nicht kurz. Werfen Sie die Batterie nicht ins Feuer. Versuchen Sie nicht, die Batterie zu öffnen.

Entsorgen Sie gebrauchte Batterien nach Angaben des Herstellers.

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## About this manual

The following manuals are provided for DDP Server:

- DDP Server Service Manual (this manual). It is intended for use by service technicians only and not available to the user. It supplements the DDP Server User's Guide and contains information about:
  - Basic setup procedures
  - Hardware description
  - Spare parts
- DDP Server User's Guide. It contains information about:
  - Hardware setup
  - Software installation and setup
  - Basic description of printing
  - Basic description of controller and job management
- Printer Driver Plug-in Reference Guide – describes how to use the DDP Server printing and finishing features.
- ProfiWeb Reference Guide – describes controller and job management using the web browser
- DocXPLOREER Reference Guide
- Database Print Manager Reference Guide

The reference guides are stored in machine readable form (PDF format) on the DDP Server Documentation CD-ROM. You may print them for use with your DDP Server.

The following additional information is available:

- Adobe PS printer driver help – this can be called from the printer driver
- ATM (Adobe Type Manager) help – this can be called from ATM

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# Hardware Description

## Hardware Versions

DDP Server comes in three different hardware versions: ProfiRIP DDP, ProfiRIP CM and FH2410.

An upgrade kit is available for upgrading ProfiRIP DDP to ProfiRIP CM.

This manual covers all hardware versions of DDP Server. To identify the hardware version of your DDP Server, look for the name “ProfiRIP DDP”, “ProfiRIP CM” or “FH2410” on the rating label at the rear of the product.



This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI-A



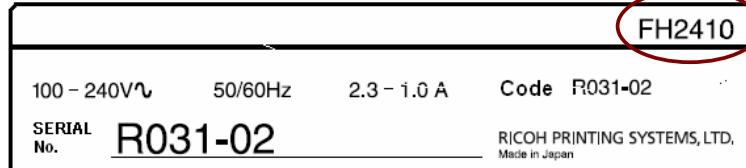
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI-A

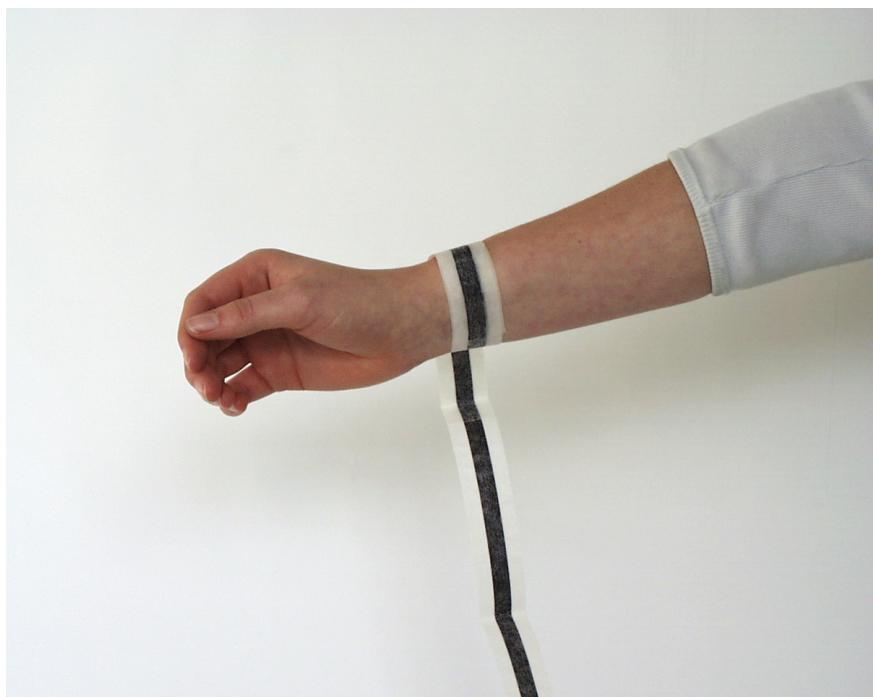


Note that the current and power rating is different for ProfiRIP DDP ,ProfiRIP CM and FH2410.

## Handling Precautions

Be aware that DDP Server contains electrostatic sensitive electronic components. These components may be destroyed or damaged by ESD (electrostatic discharge) if handling precautions are not observed. Such damage may be invisible and may result in product failure after some time.

**⚠ CAUTION:** To avoid damage to sensitive electronic components, handle components in an ESD-proved area. If an ESD-proved workplace is not available, use a grounded wrist strap during disassembly and assembly of electronic components.



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# Component Overview

The main components of the DDP Server are:

## **Mainboard**

Personal computer mainboard with special BIOS. Includes serial port (covered by metal plate) for accessing the service menu.  
The mainboard of ProfiRIP CM provides the Ethernet port for LAN connection (10BaseT / 100BaseTX, autosensing).  
The mainboard of FH2410 provides the Ethernet port for LAN connection (10BaseT / 100BaseTX / 1000BaseT, autosensing).

## **CPU**

Intel Celeron 1.30 GHz processor for ProfiRIP DDP.  
AMD Athlon XP 2000+ (1.667 GHz) processor for ProfiRIP CM.  
Intel Pentium4(3.4GHz) processor for FH2410.  
CPUs are equipped with heatsink and fan.

## **Memory**

128 MB SDR SDRAM module for ProfiRIP DDP.  
512 MB DDR SDRAM module for ProfiRIP CM.  
512 MB DDR SDRAM module (2 x 256MB) for FH2410.

## **Harddisk\***

40 GB harddisk (capacity subject to change).

## **Ethernet Cards\***

LAN port supports 10BaseT and 100BaseTX, autosensing for ProfiRIP DDP / CM.  
LAN port supports 10BaseT, 100BaseTX and 1000BaseT, autosensing for FH2410.  
Printer ports support connection to DDP184 front and rear engines.  
LAN Ethernet card is provided by ProfiRIP DDP only because ProfiRIP CM and FH2410 provide LAN port on the mainboard.

## **Switch Panel**

Printed circuit connecting the LEDs on the front side and theInitDisk button to the mainboard's floppy port. (The LEDs and the InitDisk button are controlled by signal lines of the floppy port.)

### ***Power Supply***

Supports a wide input voltage range of 100-240 VAC.

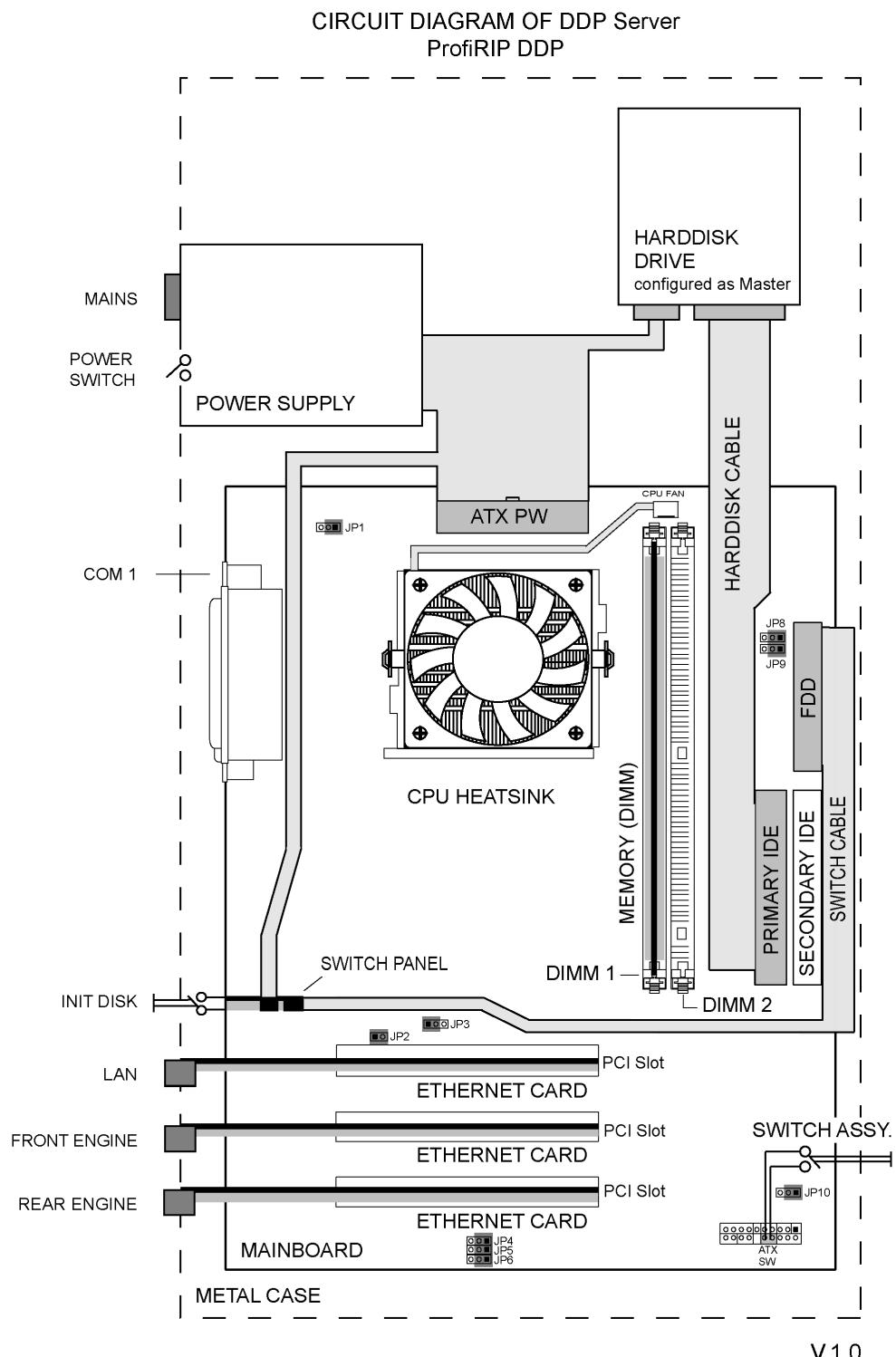
- \* Note that the system software is copy protected, harddisk and LAN Ethernet card must match on ProfiRIP DDP / CM.. In case of repair, harddisk and LAN Ethernet card must be exchanged together. Follow special instructions regarding the LAN Ethernet card in case of upgrade kit installation (refer to Upgrade Kit Installation Guide).

Copy protection restriction does not apply to Ethernet cards of the printer ports. Refer to “Ethernet Cards” section in this manual for details.

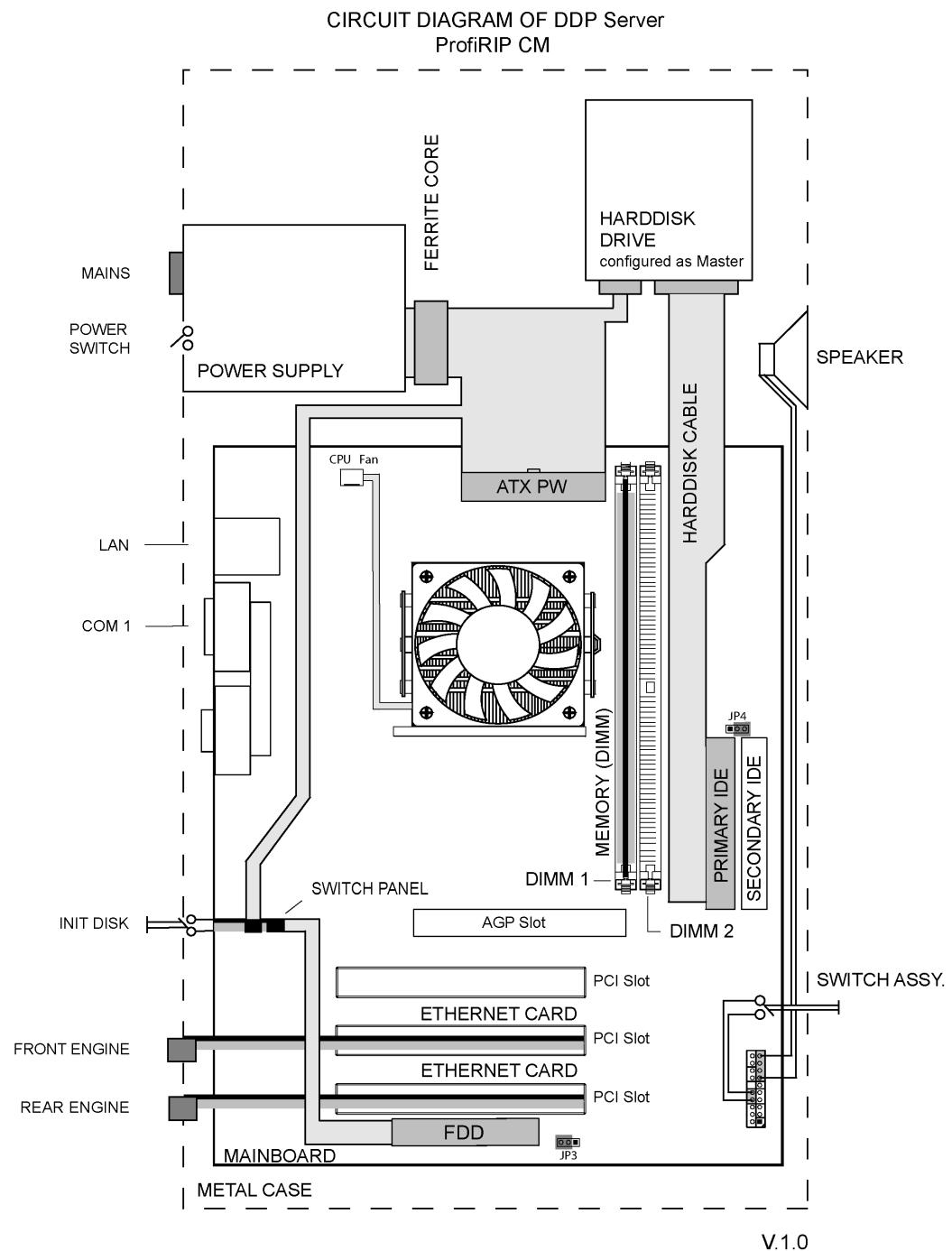
Also, the system software is copy protected, harddisk and USB dongle must match on FH2410. In case of repair, harddisk and USB dongle must be exchanged together.

# Circuit Diagram

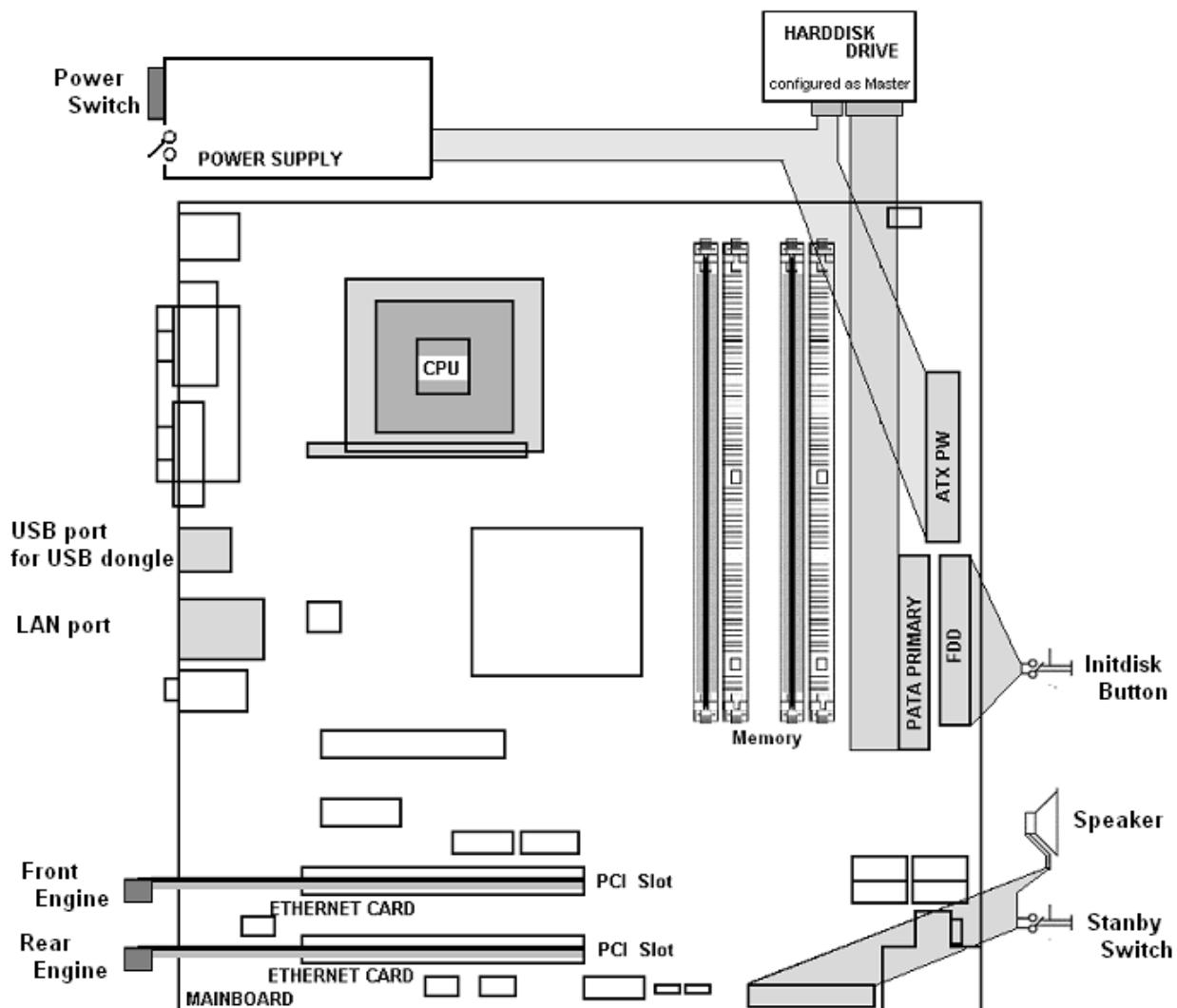
## ProfiRIP DDP Circuit Diagram



# ProfiRIP CM Circuit Diagram



## FH2410 Circuit Diagram



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# Preparing Installation

Before the DDP Server is installed, make sure to check the following requirements:

## Interface Cables

Note that network cables are not provided with the DDP Server. Make sure that suitable cables are available for installation, depending on the user's network environment.

## Setup Procedures

Please refer to the DDP Server User's Guide for setup and installation procedures.

The DDP Server User's Guide includes detailed information about the DDP Server cabling and network setup. It also includes a description of the software which is contained in the DDP Server Documentation CD-ROM.

**⚠** **WARNING:** Make sure to follow the cabling instructions contained in the DDP Server User's Guide. Carefully observe the safety warnings in the DDP Server User's Guide.

**⚠** **WARNUNG:** Befolgen Sie unbedingt die Verkabelungsanweisungen aus dem DDP-Server Bedienerhandbuch. Befolgen Sie sorgfältig die Sicherheitswarnungen, die im DDP-Server Bedienerhandbuch enthalten sind.

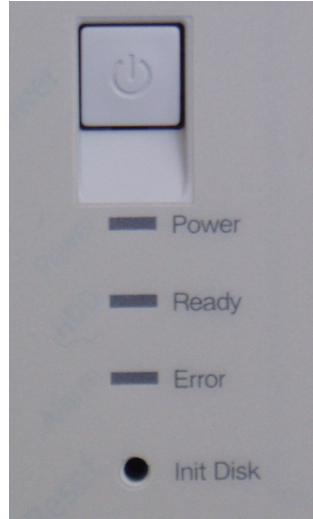
# Operator Panel

The operator panel on the front side has the following functions:

ProfiRIP DDP / CM



FH2410



- Standby (power) button: This button allows you to power on or shut down the DDP Server.

To power on or shut down the DDP Server, press this button shortly. A regular shut down includes closing the job and queue database.

When the DDP Server is running, you may force power down by holding the standby (power) button for more than 4 seconds. However, you should force power-down only if the DDP Server does not react otherwise, as in this way the database is not closed and loss of the stored data may result. For the same reason, do not switch off the DDP Server by means of the power switch at the rear before performing a regular shutdown using the standby button.

- READY control light (green) with the following meanings:
  - Constant – DDP Server is idle
  - Blinking – DDP Server is busy
- ERROR control light (ProfiRIP DDP / CM : yellow, FH2410 : red) with the following meanings:
  - Constant – data transfer to printer

The following special states are also shown by the control lights:

DDP Server Initialisation – both blinking  
DDP Server Shutdown – both constant

The following error states are shown by the control lights:

Engine absent while DDP Server boots – both constant  
Engine absent while DDP Server prints – READY blinks slowly, ERROR remains constant

# Servicing the DDP Server

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## Tools

The following tools are recommended for disassembly and assembly of the DDP Server:

***Pliers***

for fastening cable ties (switch panel, case).

***Diagonal cutter***

for cutting cable ties (switch panel, case).

***Screwdriver, Phillips type, size PH1***

for screws of the I/O cover plate (mainboard, case).

***Screwdriver, Phillips type, size PH2***

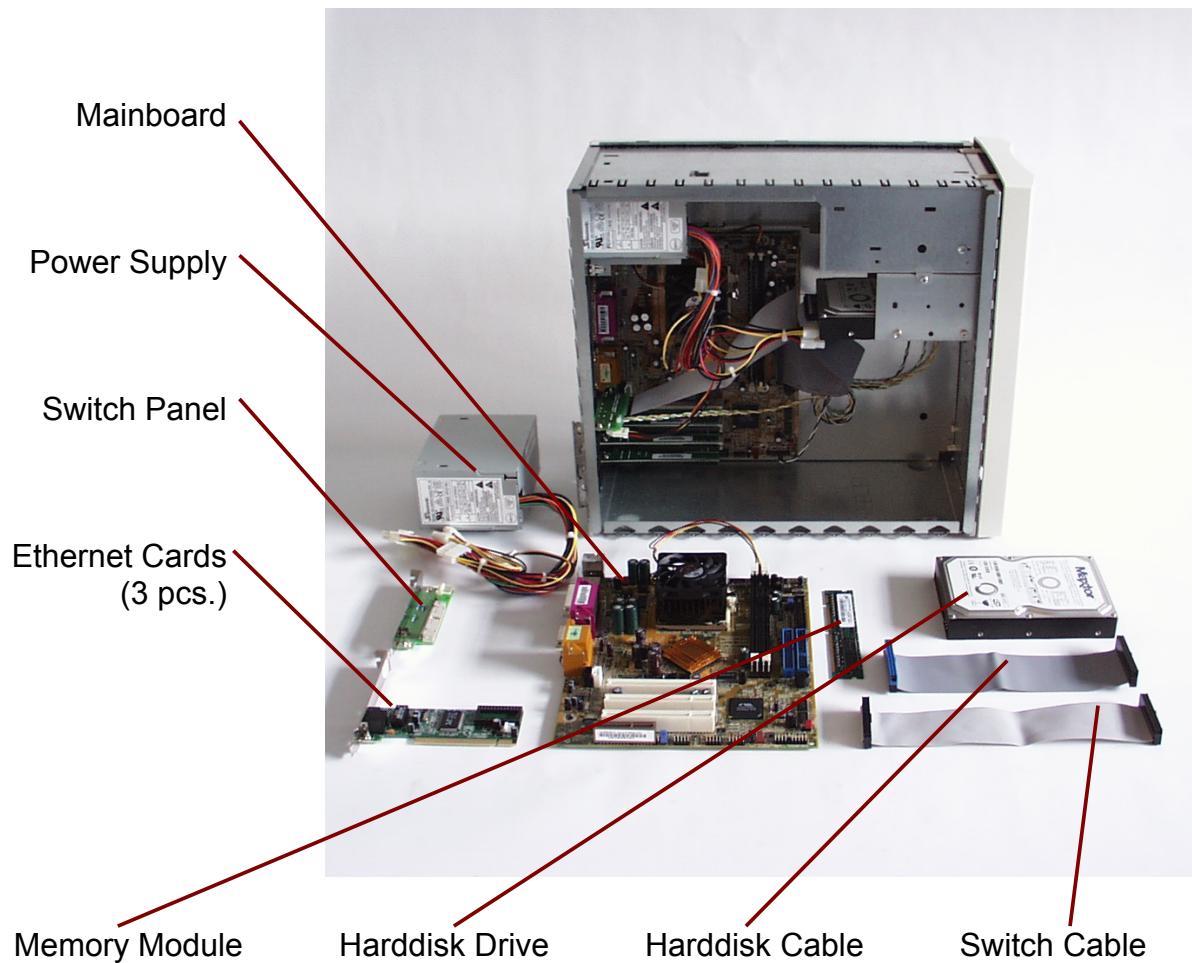
for all screws except those of the I/O cover plate.



# Identifying Components

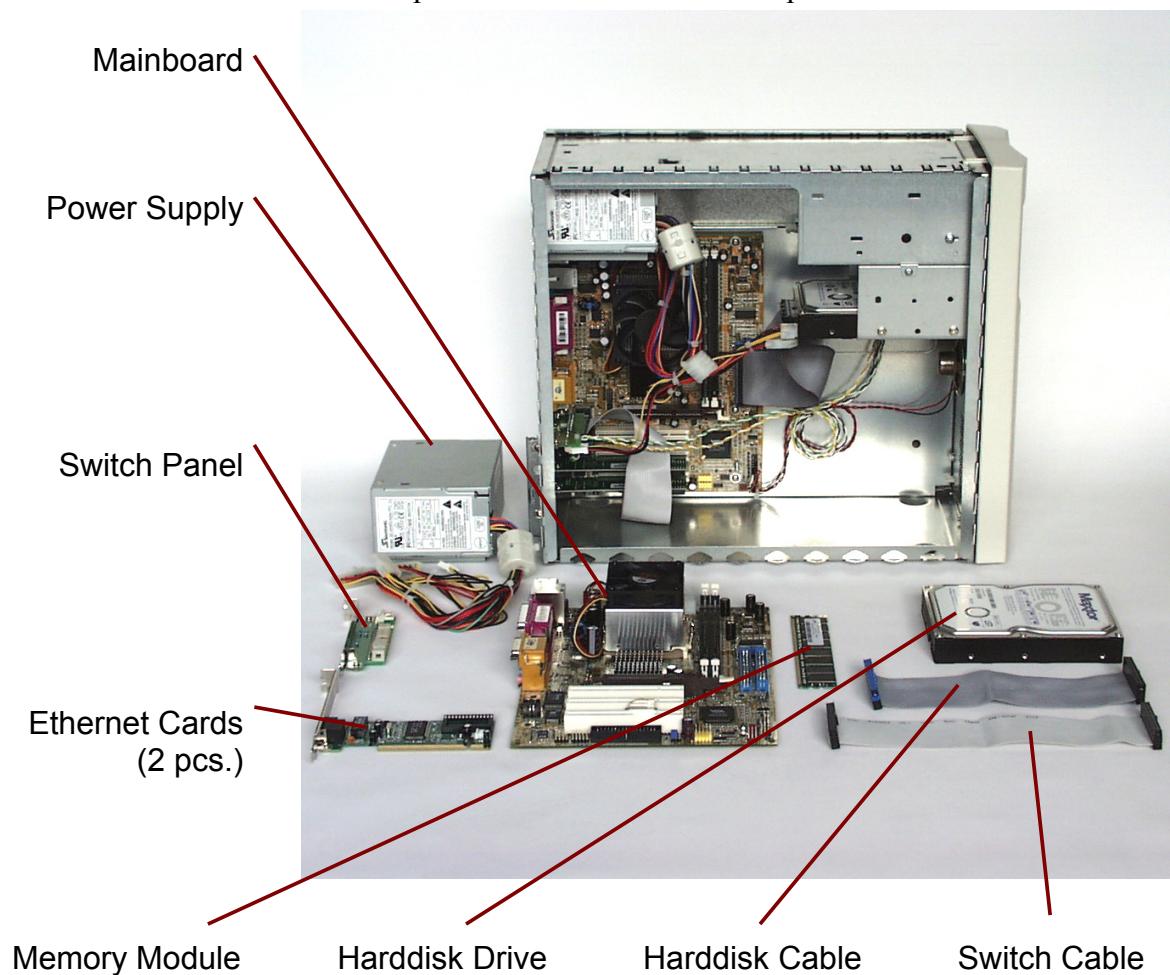
## ProfiRIP DDP Components

The picture below shows the components of ProfiRIP DDP:



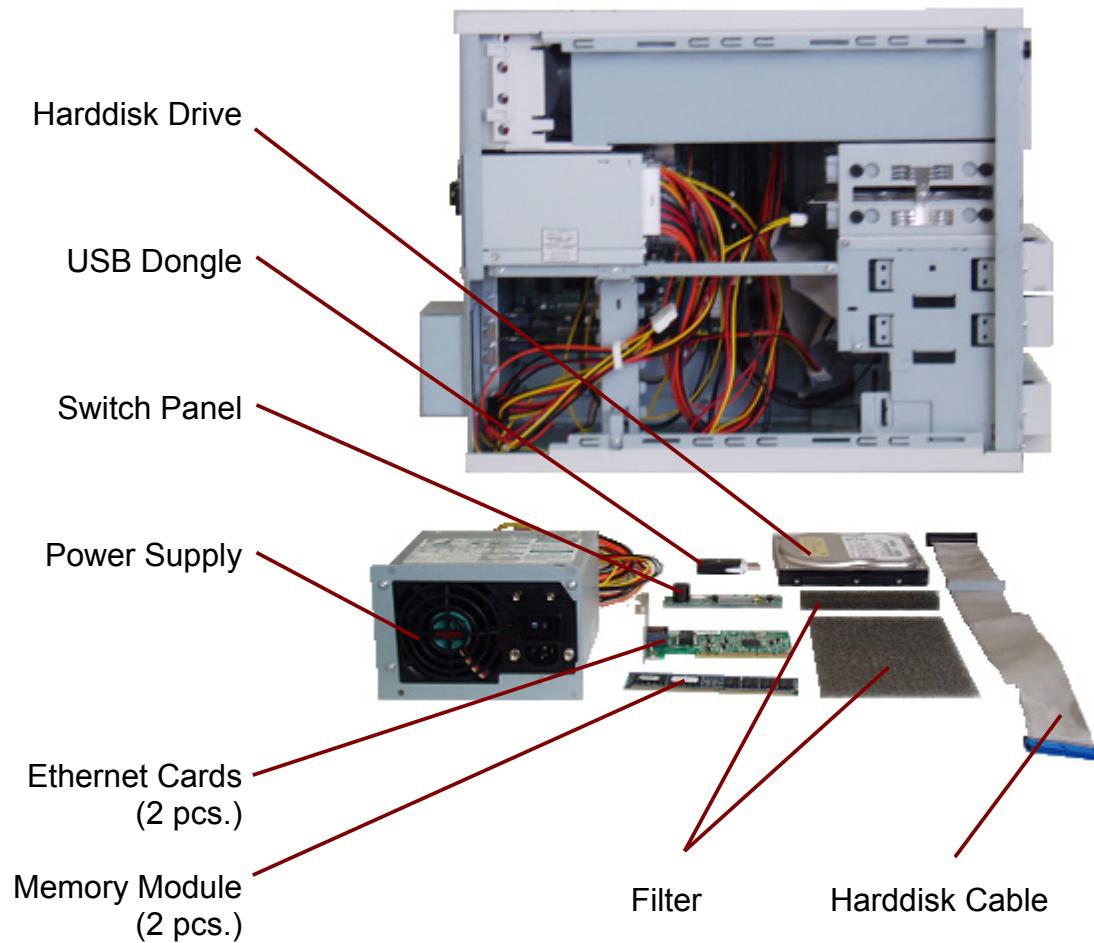
## ProfiRIP CM Components

The picture below shows the components of ProfiRIP CM:



## FH2410 Components

The picture below shows the components of FH2410.



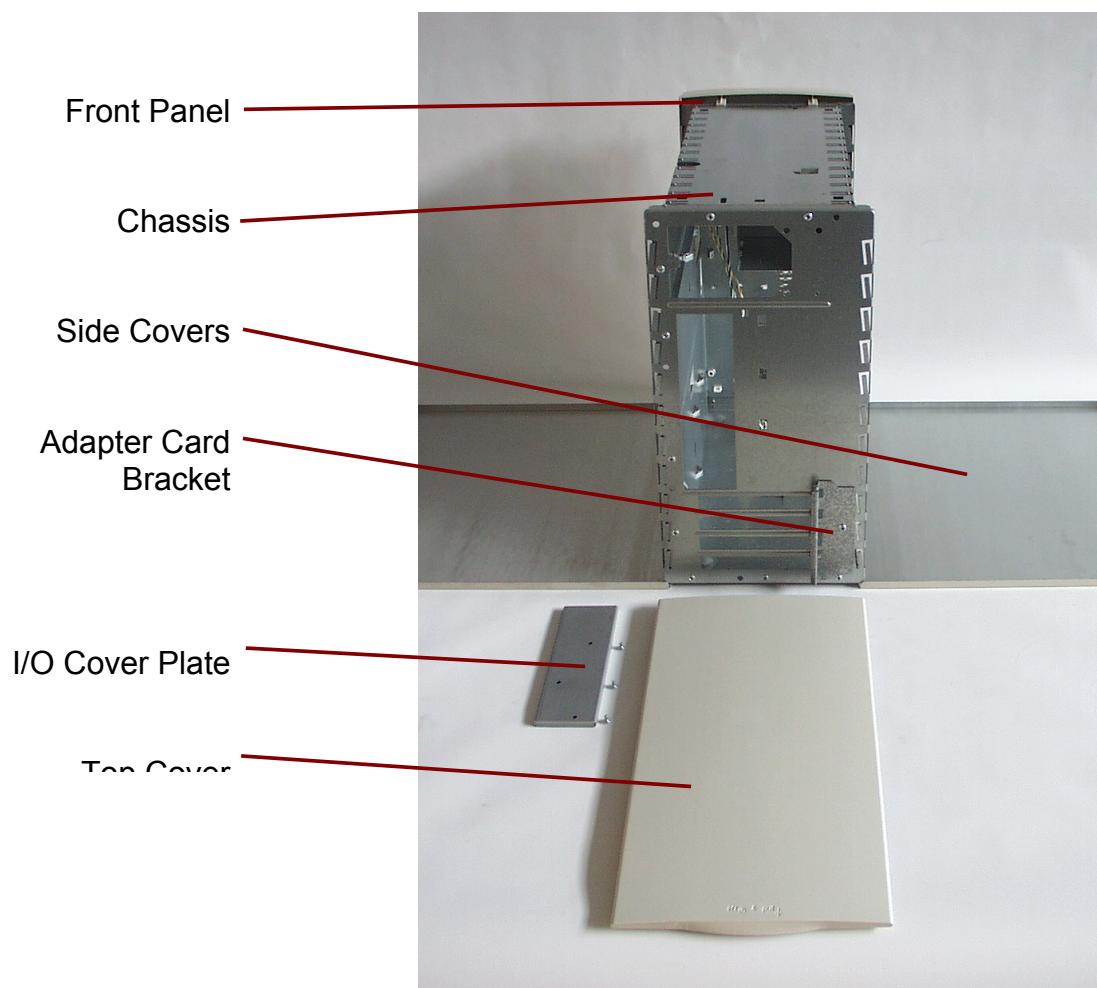
# The Case

## The case of ProfiRIP DDP / CM

The case consists of the chassis, one top cover and 2 side covers. The front panel is fixed at the chassis, there is no need to remove it for service purposes.

Additionally, the I/O cover plate is fixed at the mainboard. It covers unused ports of the mainboard.

The I/O cover plate must be removed to access the serial port for setting up the DDP Server by means of the service menu.

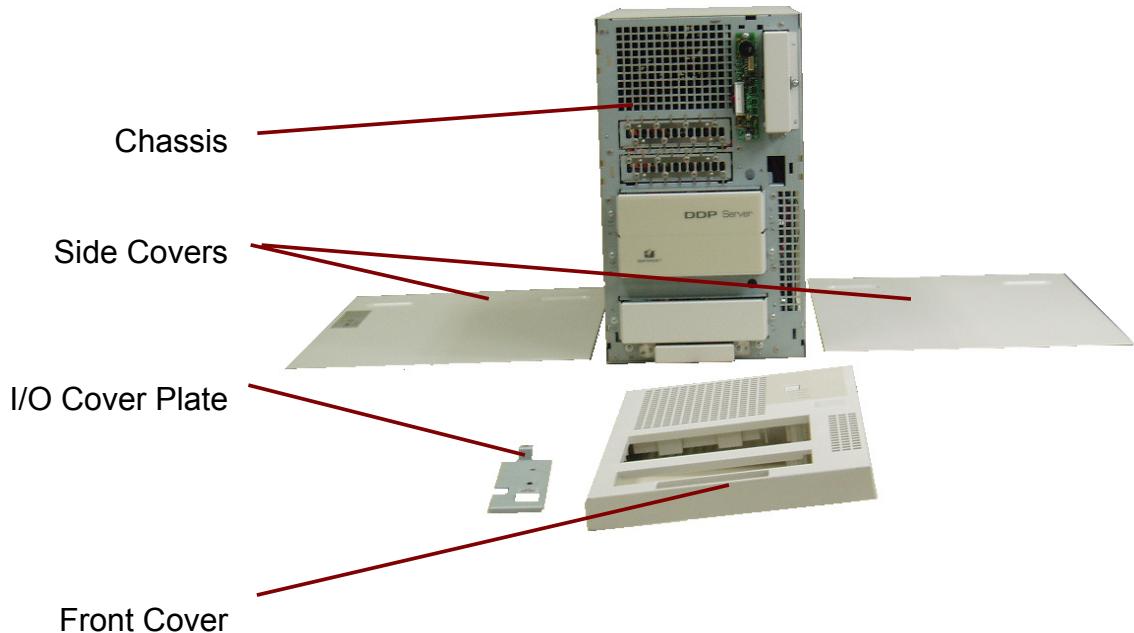


## The case of FH2410

The case consists of the chassis, one front cover and 2 side covers. The top cover is fixed at the chassis, there is no need to remove it for service purposes.

Additionally, the I/O cover plate is fixed at the mainboard. It covers unused ports of the mainboard.

The I/O cover plate must be removed to access the serial port for setting up the DDP Server by means of the service menu.

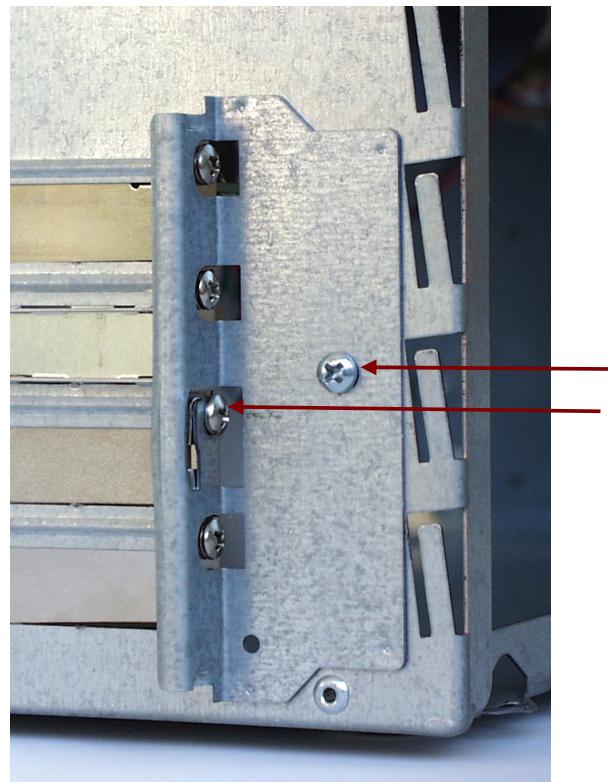


## **Adapter Card Bracket for ProfiRIP DDP / CM**

Adapter cards and the adapter card bracket at the rear are fixed by 5 self-tapping screws.

The adapter card bracket must be removed for exchanging the switch panel or any of the Ethernet cards.

The adapter card bracket is held by 2 screws, including one which holds the front engine Ethernet card. To remove the adapter card bracket, remove these two screws.



When reinstalling the adapter card bracket insert both screws manually and hold the Ethernet card for the front engine in an upright position. Tighten the Ethernet card's screw first, then tighten the other screw.

## I/O Cover Plate

The I/O cover plate is fixed by 3 screws. It must be removed to access the serial port or for removing the mainboard.

There are three different versions of the I/O cover plate:  
ProfiRIP CM's cover plate provides a cutout for accessing the Ethernet receptacle for LAN connection.  
FH2410 additionally provides a cutout for accessing the USB.

Left picture:  
ProfiRIP DDP



Middle picture:  
ProfiRIP CM



Right picture:  
FH2410



# Opening the Covers for ProfiRIP DDP / CM

Before opening the ProfiRIP DDP / CM, always switch off the power switch at the rear and unplug the power cord. Keep in mind that the power supply delivers a standby voltage to the standby circuitry as long as the power switch is switched on.

**⚠** **WARNING:** Never open the cover and exchange components as long as the power cord is connected.

To access internal components, the top cover of the ProfiRIP DDP / CM must be removed first. Once the top cover has been removed, one or both side covers can be opened. The front panel always remains at the chassis, there are no serviceable parts covered by the front panel.

## Top Cover

To open the top cover, lift the handle at the rear of the cover. While holding it upwards, carefully pull the handle to the rear to unlock the top cover. Lift the cover to remove it.



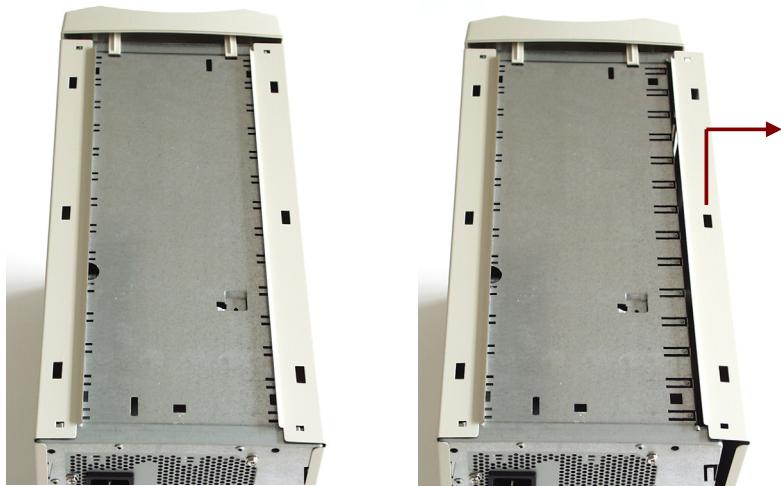
When closing the top cover make sure that all six plastic bolts of the top cover are correctly positioned in the slots of the chassis before pushing the top cover to the front. A locking pin at the rear pushes the top cover upwards which prevents the bolts from being correctly positioned. Therefore the long edges of the cover (where the bolts are) must be pressed down firmly while pushing the cover to the front. Once in the final position the locking pin of the cover will snap into the cutout of the chassis and lock it.

**⚠** **CAUTION:** Apply moderate force only when shifting the top cover to the front, otherwise one or more plastic bolts may break. The cover can be pushed easily forward when the bolts are correctly positioned.

## Side Covers

After removing the top cover, the upper edges of the side covers are accessible. To open one of the side covers, lift the upper edge while pushing the edge to the side. Once unlocked, move the side cover downwards. The side cover must be in a 90° position to the chassis (i.e. moved fully downwards) before it can be removed.

You may want to remove one or both covers. The side cover at the bottom of the mainboard must only be removed to access the screws of the harddisk drive.



Each side cover must be in a 90° position to the chassis before it can be pushed into the hinges of the pivot fastener for closing. Do not apply force when attempting to close the cover. The side cover closes easily once the hinges are in the correct position.

When the side cover is almost closed, push the upper edge towards the chassis until it snaps into the closed position.

---

## Opening the Covers for FH2410

Before opening the FH2410, always switch off the power switch at the rear and unplug the power cord. Keep in mind that the power supply delivers a standby voltage to the standby circuitry as long as the power switch is switched on.

**⚠** **WARNING:** Never open the cover and exchange components as long as the power cord is connected.

To access internal components, the right side cover or both side covers of the FH2410 must be removed first. Once both side covers have been removed, the front covers can be opened. The top cover always remains at the chassis, there are no serviceable parts covered by the top cover.

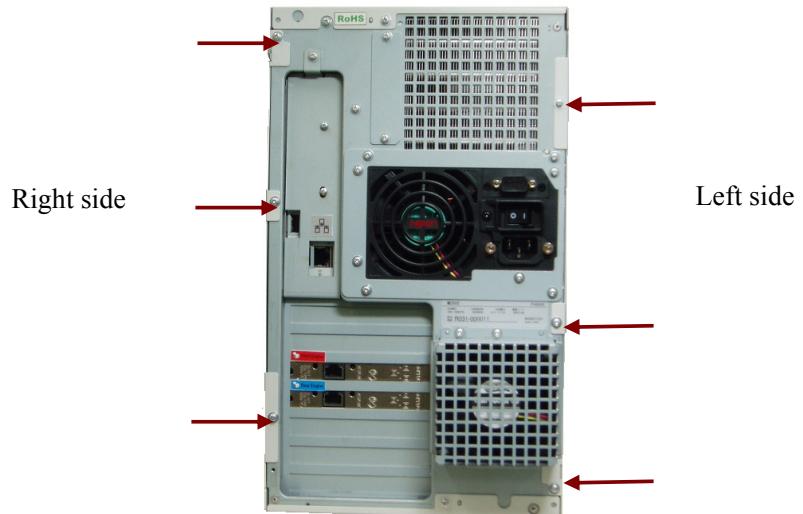
Schalten Sie vor dem Öffnen des FH 2410 immer den Netzschalter an der Rückseite aus und ziehen Sie das Netztanschlußkabel ab. Beachten Sie, dass das Netzteil eine Bereitschaftsspannung an den Bereitschaftsschaltkreis liefert, solange der Netzschalter eingeschaltet ist.

**⚠** **WARNUNG:** Öffnen Sie nie die Abdeckung und tauschen Sie keine Bestandteile aus, solange das Netztanschlußkabel angeschlossen ist.

Um interne Bestandteile zugänglich zu machen, müssen zuerst die rechte Seitenverkleidung oder beide Seitenverkleidungen des FH2410 entfernt werden. Sobald beide Seitenverkleidungen entfernt worden sind, können die vorderen Abdeckungen geöffnet werden. Die obere Abdeckung bleibt immer am Chassis, sie verdeckt keine Teile die zugängig sein müssen.

## Side Covers

Each side cover is fixed by 3 screws. To remove the side cover, remove these screws.



After removing these screws, shift the cover to the rear.



Each side cover can be pushed into the hinges of the pivot fastener for closing. And shift the side cover to the front and fix it by 3 screws.

## Front Cover

After removing both side covers, the front cover is accessible. To open it, pull the front cover forward while holding the bottom of front cover with both hands.



When the front cover is closed, push it to the chassis before it can be pushed into the hinges.

**⚠ CAUTION:** After the front cover was removed, install it by all means.

**⚠ VORSICHT:** Nachdem die vordere Abdeckung entfernt wurde, bringen Sie sie auf jeden Fall wieder an.

# Exchanging Components for Profi RIP DDP / CM

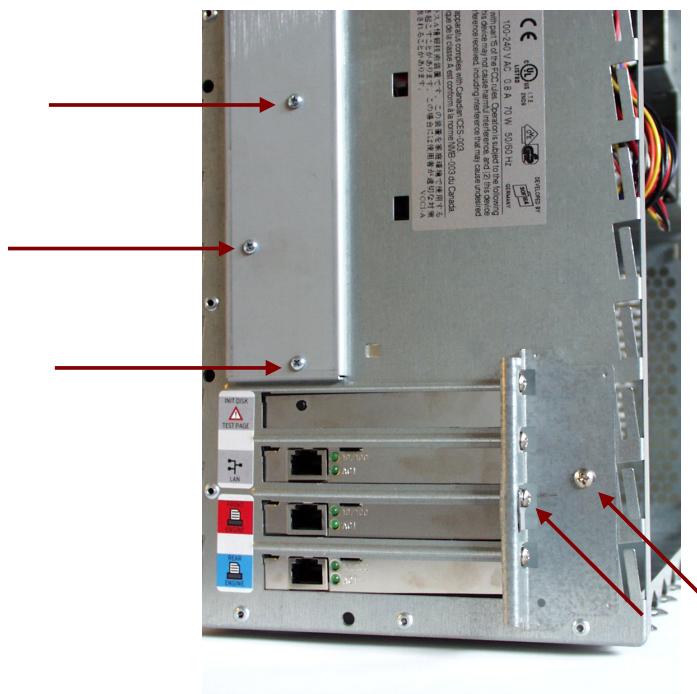
Before attempting to exchange components, keep in mind that you must remove the

I/O cover plate for accessing the mainboard

adapter card bracket for accessing switch panel or Ethernet cards.

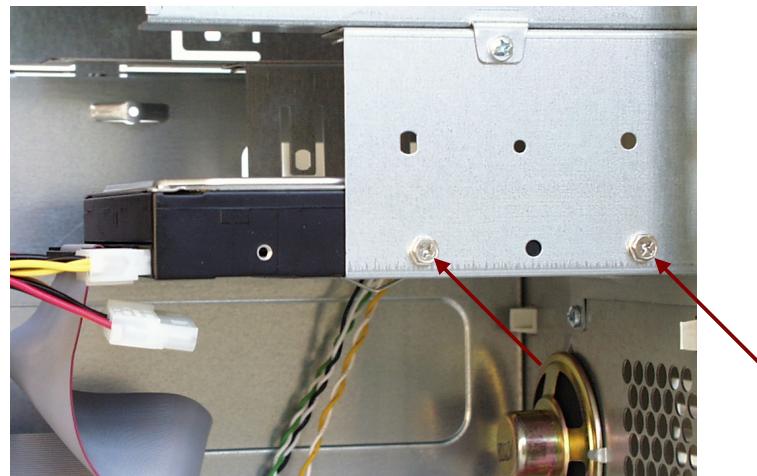
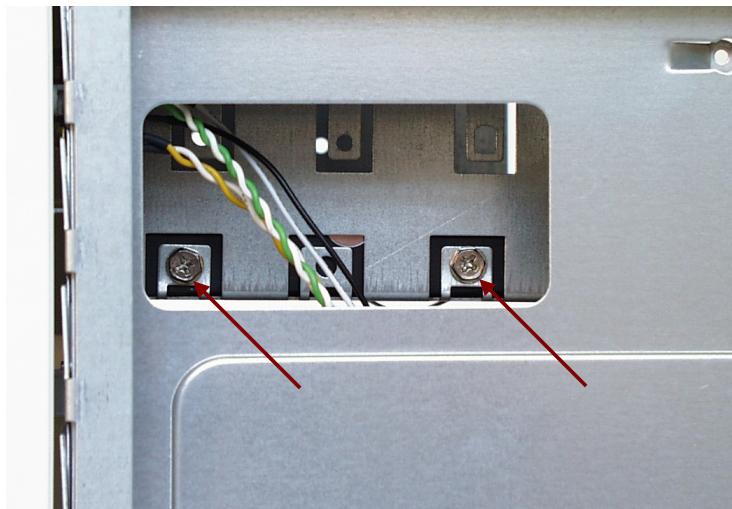
**⚠ CAUTION:** Make sure to follow the handling precautions for electrostatic sensitive electronic components.

**⚠ VORSICHT:** Befolgen Sie unbedingt den Behandlungsvorkehrungen für elektrostatische empfindliche elektronische Bestandteile.



## Harddisk Drive

The harddisk drive is fixed by 4 screws UNC 6-32 x 6 mm. Both side covers must be opened to access the screws of the harddisk drive.



To remove the harddisk drive, unplug the harddisk cable and power cable, then remove the screws.

To install the harddisk drive, insert all 4 screws, then tighten the screws and finally connect harddisk cable and power cable. Note that both harddisk and power connectors are polarized and cannot be inserted in wrong orientation. Make sure that the black connector of the harddisk cable is plugged into the harddisk drive and the blue connector is plugged into the mainboard.

Keep in mind that harddisk drive and LAN Ethernet card (ProfiRIP DDP) or front engine Ethernet card (ProfiRIP CM) must always be exchanged together. Refer to the “Ethernet Cards” section for details.

## Power Supply

The power supply is fixed by 3 screws UNC 6-32 x 6 mm. To remove the power supply, unplug the ATX power connector from the mainboard, the HDD power connector from the harddisk drive and the FDD power connector from the switch panel.



Hold the power supply in your hand when removing the screws, otherwise it may drop down and damage other components.

When reinstalling the power supply, tighten the screws before connecting the ATX power plug to the mainboard, the HDD power plug to the harddisk drive and the FDD power plug to the switch panel.

## Ethernet Cards

One of the Ethernet cards serves as a copy protection key. It must match and always be exchanged together with the harddisk drive.

ProfiRIP DDP uses the Ethernet card for LAN connection for this purpose. In ProfiRIP CM, i.e. after upgrade kit installation, the Ethernet card for the front engine serves this purpose.

It is most important to distinguish this special Ethernet card from the others. Failure to do so may lead to malfunction after reassembly. It is strongly recommended to either apply a marking or to take a note of the Ethernet card's serial number before proceeding with disassembly.

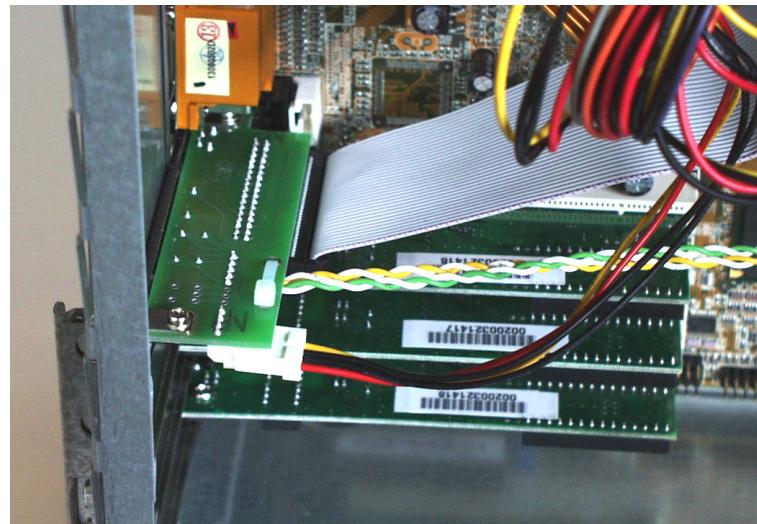
**CAUTION:** Mixing up the Ethernet cards may prevent the DDP Server from printing.

The Ethernet cards are held by the adapter card bracket and by self-tapping screws. To remove one of the Ethernet cards remove the adapter card bracket first. Remove the self-tapping screw of the Ethernet card and carefully pull the card out of the PCI slot.

Upon reassembly do not damage the gaskets when inserting the Ethernet card and make sure that the card is fully inserted into the PCI slot.

## Switch Panel

The switch panel is held by the adapter card bracket and by one self-tapping screw, similar to the Ethernet cards.



To remove the switch panel remove the adapter card bracket first. Remove the self-tapping screw of the switch panel and carefully pull it out.

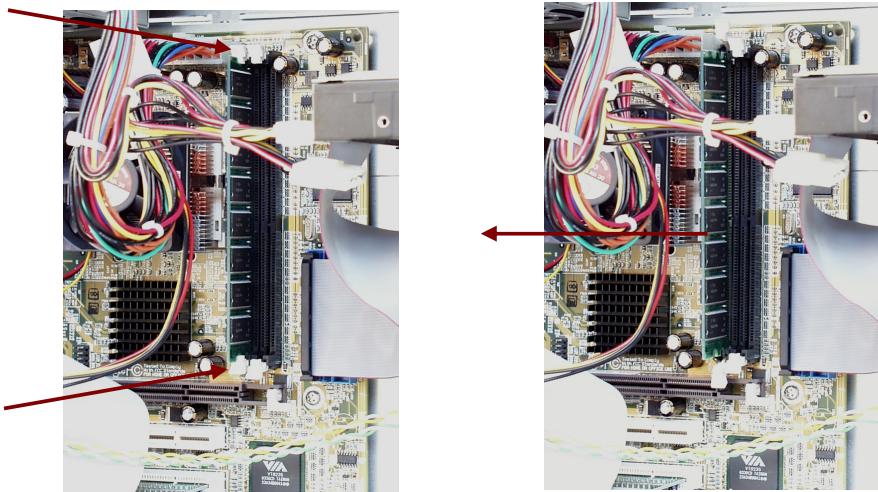
Carefully cut the cable tie at the switch panel in order to remove the LED cables. Unplug the switch cable and FDD power connector.

Make sure to reconnect the cables correctly when installing the switch panel. Switch cable and power connectors are polarized and cannot be inserted in wrong orientation, but the LED cables need attention: Connect the “HDD LED” plug to the “HDD” connector and the “PWR LED” plug to the “PWR” connector of the switch panel. The marking at the switch panel indicates the orientation of the connectors' white wires.

After connecting the LED cables install a new cable tie at the switch panel. It serves as a strain relief and prevents the LED cables from getting loose.

## Memory Module (DIMM)

The memory module (DIMM) is held by two locking levers of the DIMM socket. To remove the memory module push down both locking levers simultaneously. This will push up the memory module and release it from the socket.



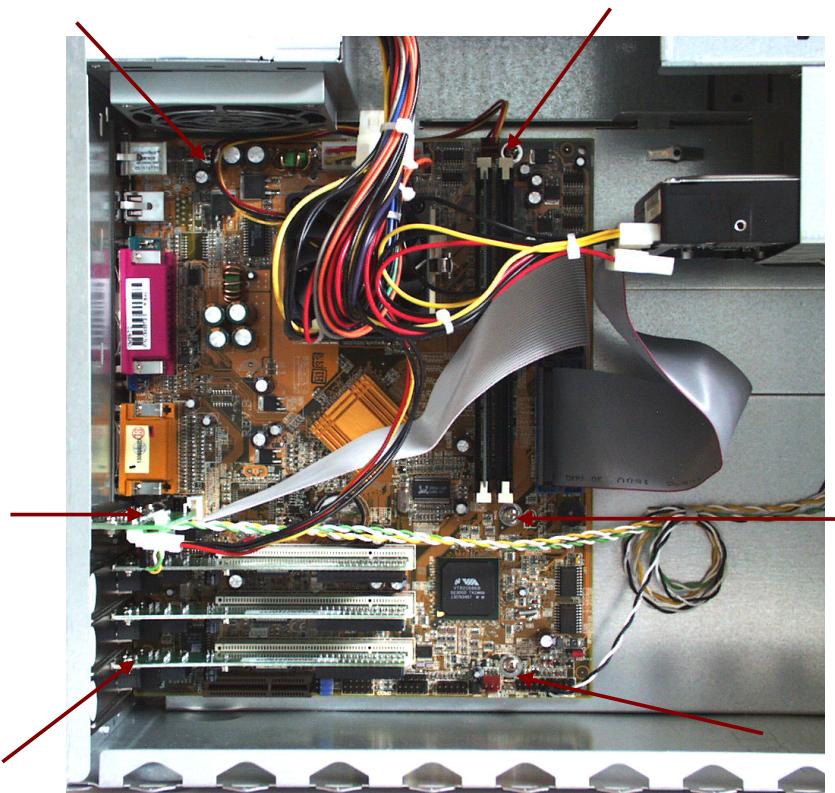
Before inserting a memory module into the socket make sure that the locking levers are in the pushed-down (open) position and that the notch at the contact side of the memory module is oriented towards the polarization bar of the socket.

Always use original spare parts for replacement of memory modules.

## Mainboard

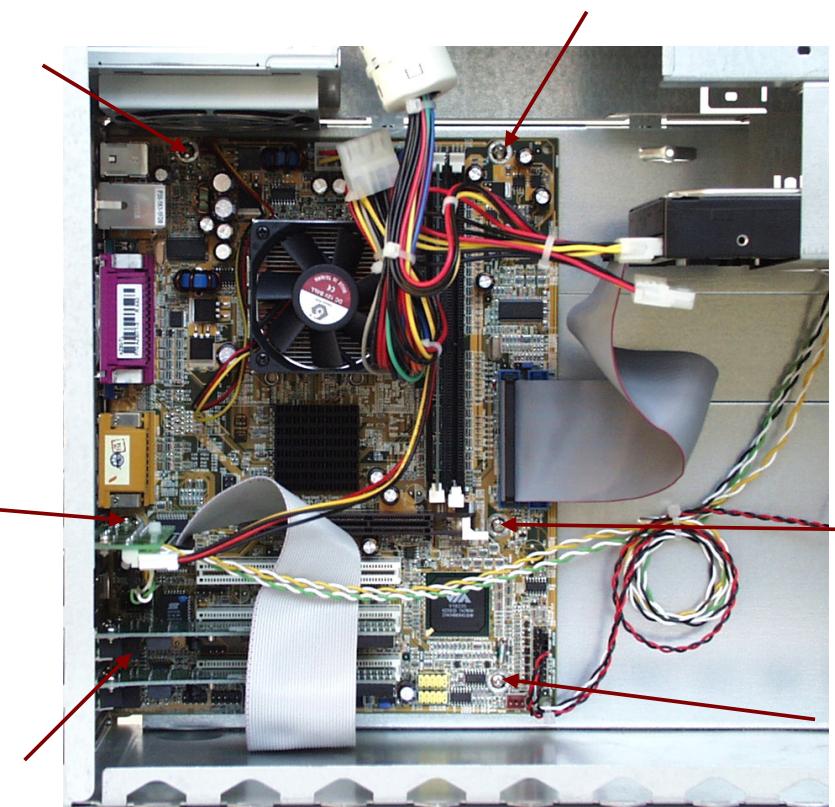
The mainboard is fixed by 6 self-tapping screws.

ProfiRIP DDP



Screws for the mainboard

ProfiRIP CM



Screws for the mainboard

Before disassembling the mainboard, the I/O cover plate at the rear, the Ethernet cards and the switch panel must be removed. Refer to the “Ethernet Cards” section for important information before removing any of the Ethernet cards.

**CAUTION:** Mixing up the Ethernet cards may prevent the DDP Server from printing.

Unplug all wires from the mainboard (see the “Wiring” section for details). You may also want to remove the harddisk drive's power plug for better access to the mainboard.

After removing all 6 screws carefully pull the mainboard away from the clips of the ATX I/O shield. Hold the mainboard horizontally until it is released from the clips, then take it out of the chassis.

Upon reassembly carefully insert the mainboard into the chassis while keeping some distance from the ATX I/O shield. Note the position of the clips and how they will touch the connectors from top, right and rear.

Now move the mainboard towards the ATX I/O shield while holding the right rear corner downwards. All clips of the ATX I/O shield must touch the connectors of the mainboard at the respective sides. Make sure not to damage any of the clips while moving the mainboard slowly to a horizontal position.

When the mainboard is properly aligned with the clips, press it against the ATX I/O shield and insert the first screw to fix it in its position. Finally insert and tighten all 6 screws.

Plug the connectors of all wires into the mainboard. Do not forget to reconnect the harddisk drive's power plug in case that you removed it before. Insert the switch panel and Ethernet cards (make sure not to mix-up the Ethernet cards).

Finally reassemble the adapter card bracket and I/O cover plate.

## Wiring for ProfiRIP DDP / CM

Two ribbon cables are used inside the DDP Server: Harddisk cable and switch cable.

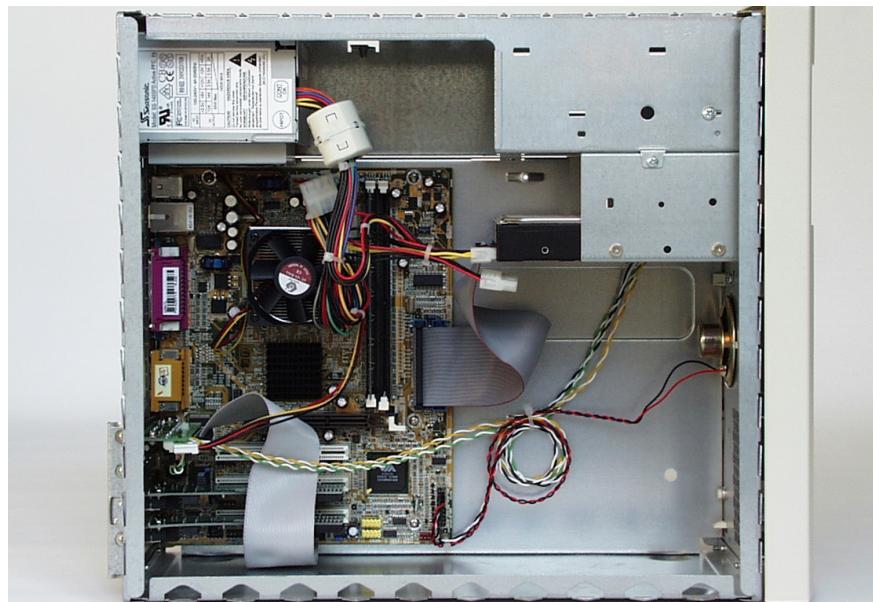
The harddisk cable connects the harddisk drive to the mainboard. The blue connector must be plugged into the primary IDE port(IDE1) of the mainboard, the black one plugs into the harddisk drive.

The switch cable connects the switch panel to the FDD connector of the mainboard. Note that the FDD connector is at different positions on ProfiRIP DDP and ProfiRIP CM mainboards.

ProfiRIP DDP

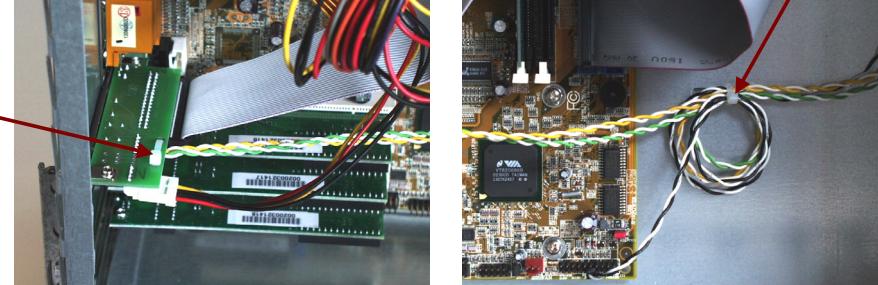


ProfiRIP CM



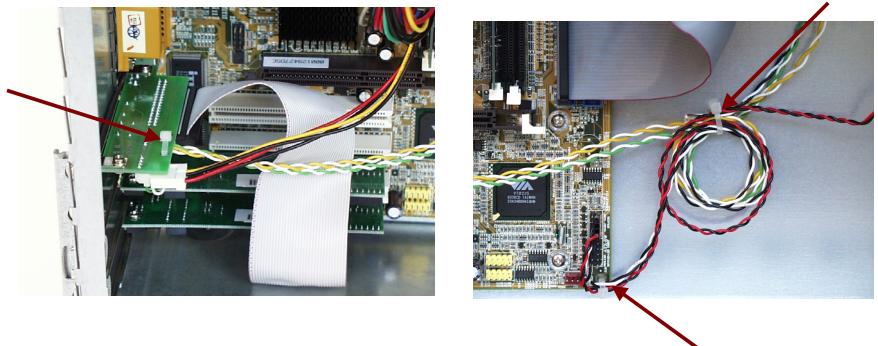
The LED cables connect to the switch panel. The LED cables are fixed with 2 cable ties. Cut and replace the respective cable tie if the switch panel or case must be exchanged.

ProfiRIP DDP



Note that an additional loudspeaker connects to the mainboard of ProfiRIP CM (ProfiRIP DDP provides an onboard speaker). Furthermore the LED cables and speaker cable of ProfiRIP CM are fixed at the bottom right hole of the mainboard with another cable tie.

ProfiRIP CM



## Network cables

If Network cables attached DDP server for connecting DDP server and Front / Rear engines are damaged, change them to the follows new ones.

Parts Number	Parts Name	Manufacturer	Piece
G1521182	Printer Cable Set	Ricoh Printing Systems, Ltd.	1

Note: Printer cable Set is two pieces.

## Netzkabel

Wenn beigelegte Netzwerkkabel des DDP Servers für das Anschließen des DDP Servers und der vorderen und hinteren Maschine beschädigt sind, tauschen Sie diese in die folgenden Neuen.

Teilnummer	Teil-Name	Herstellung	Teil
G1521182	Printer Cable Set	Ricoh Printing Systems, Ltd.	1

Anmerkung: Druckerkabel Satz entspricht zwei Stück

# Exchanging Components for FH2410

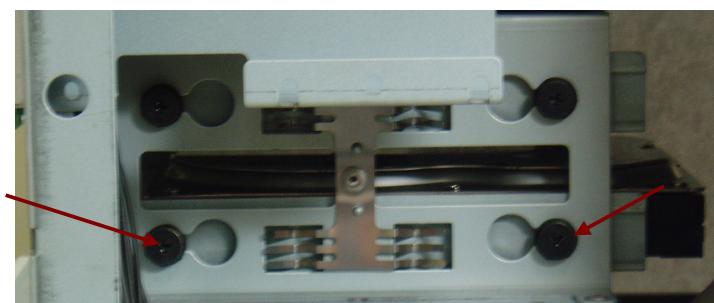
I/O cover plate is removed only when accessing the Service Menu via DB9 port.

**!** CAUTION: Make sure to follow the handling precautions for electrostatic sensitive electronic components.

## Harddisk Drive

The harddisk drive is fixed by 8 screws. Both side covers and front cover must be opened to access the screws of the harddisk drive.

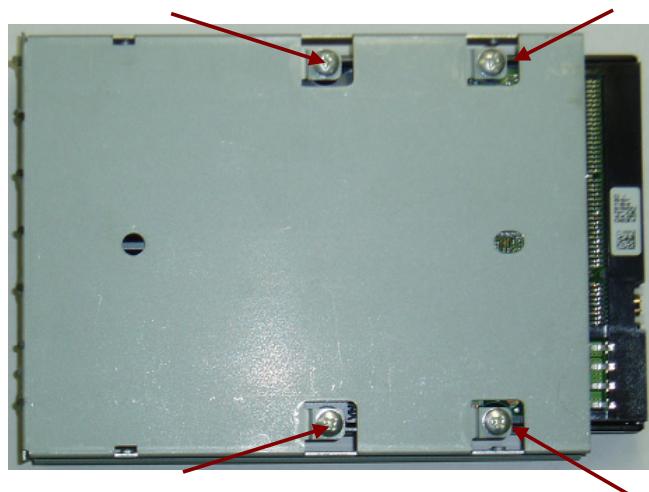
To remove the harddisk drive, unplug the harddisk cable and power cable and remove the 4 screws on both side of FH2410.



Pull up HDD forward after removing these screws



Then remove 4 screws fixing HDD on the tray.



To install the harddisk drive, insert all 8 screws, then tighten the screws and finally connect harddisk cable and power cable. Note that both harddisk and power connectors are polarized and cannot be inserted in wrong orientation. Make sure that the black connector of the harddisk cable is plugged into the harddisk drive and the blue connector is plugged into the mainboard.

Keep in mind that harddisk drive and USB dongle must always be exchanged together.

Also, send back the exchanged USB dongle to Ricoh Printing Systems, Ltd. in Japan immediately.

## **USB dongle**

Shutdown DDP Server before removing USB dongle.  
Keep in mind that harddisk drive and USB dongle must always be exchanged together.  
Also, send back the exchanged USB dongle to Ricoh Printing Systems, Ltd. in Japan immediately.



## Power Supply

The power supply is fixed by 8 screws. To remove the power supply, open the right side cover and unplug the ATX power connector from the mainboard, the HDD power connector from the harddisk drive.



Hold the power supply in your hand when removing the screws, otherwise it may drop down and damage other components.

When reinstalling the power supply, tighten the screws before connecting the ATX power plug to the mainboard, the HDD power plug to the harddisk drive.

## **Ethernet Cards**

The Ethernet cards are held one screws. To remove one of the Ethernet cards, open the left side cover first. Remove the a screw of the Ethernet card and carefully pull the card out of the PCI slot.

Upon reassembly do not damage the gaskets when inserting the Ethernet card and make sure that the card is fully inserted into the PCI slot.

## Switch Panel

The switch panel is held on the front of chassis by 2 screws. To remove the switch panel, open both side covers and front cover first. Carefully unplug the switch cable from the switch panel and remove 2 screws of the switch panel.

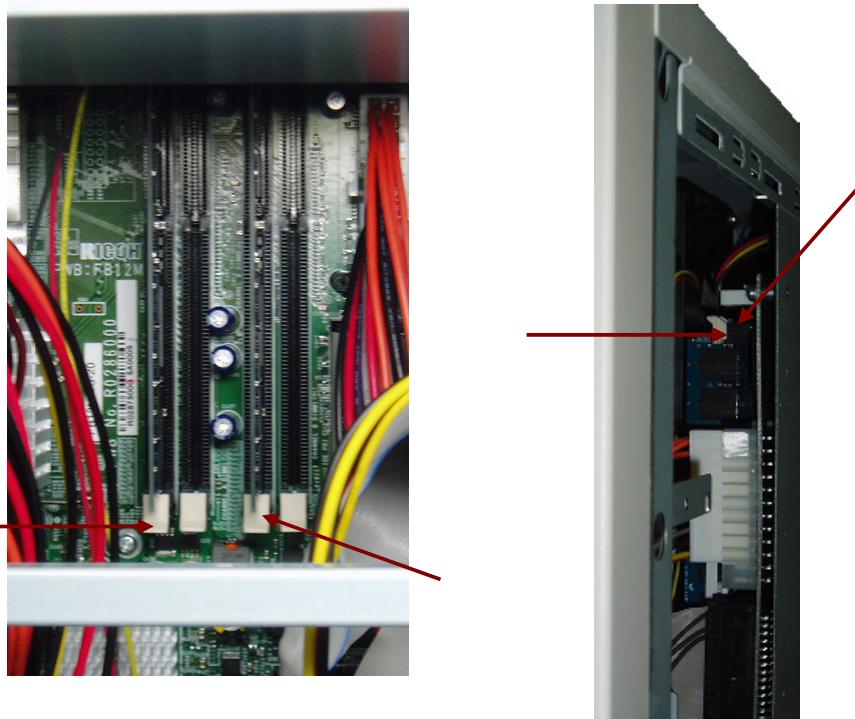


Make sure to reconnect the cables correctly after fixing the switch panel by 2 screws when installing the switch panel. Switch cable is polarized and cannot be inserted in wrong orientation.

## Memory Module

The memory module (DIMM) consists of 2 memory cards. Each memory card is held by two locking levers of the DIMM socket.

To remove the memory module, open Both side covers first. Then push down the lower locking levers from left side of chassis and the upper locking levers from right side of chassis simultaneously. This will push up the memory card and release it from the socket.

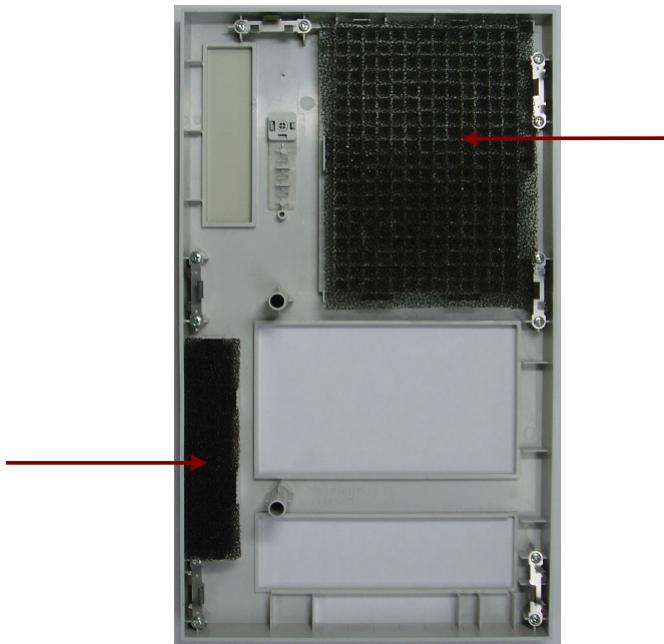


Before inserting a memory card into the socket, make sure that the locking levers are in the pushed-down (open) position and that the notch at the contact side of the memory module is oriented towards the polarization bar of the socket.

Always use original spare parts for replacement of memory module. And replace 2 memory cards simultaneously when replacing the memory module.

## **Filter**

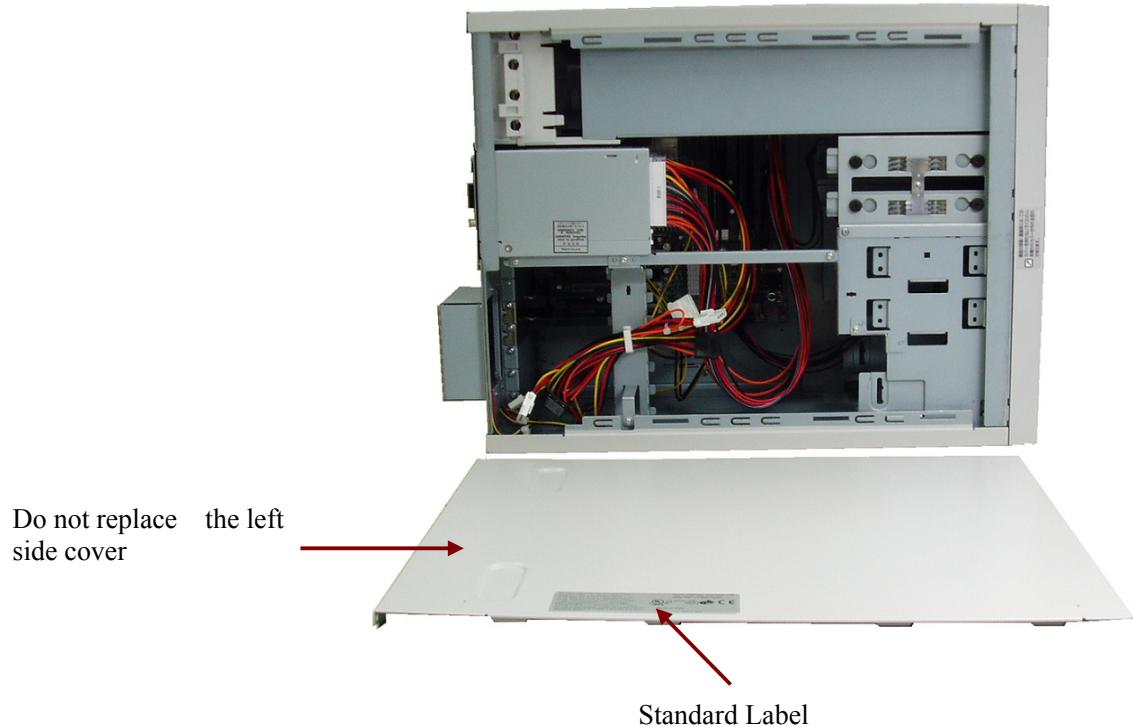
2 filters are installed behind the front cover.  
To remove them , open both side covers and front cover first. Then  
replace 2 filters.



## Mainboard with Case

Before placing the main board with case, USB dongle and HDD must be removed. Refer to the “Harddisk Drive” and USB dongle section for important information before removing them.

Also, since the standard label is put on the left side cover of spare parts, do not replace it.



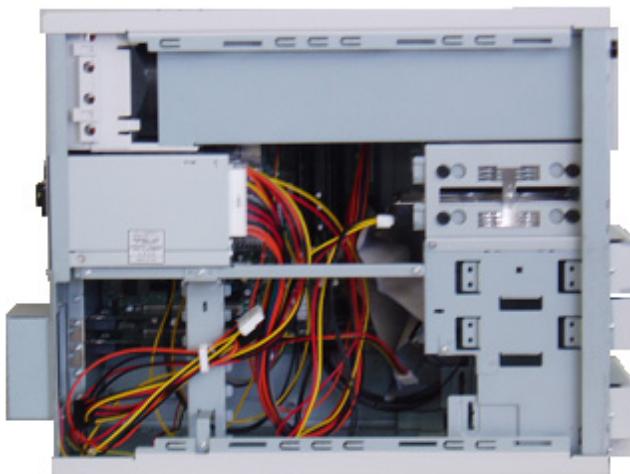
Also, send back the exchanged Motherboard with Case to Ricoh Printing Systems, Ltd. in Japan.

## Wiring for FH2410

Two ribbon cables are used inside the DDP Server: Harddisk cable and switch cable.

The harddisk cable connects the harddisk drive to the mainboard. The blue connector must be plugged into the PATA primary port of the mainboard, the black one plugs into the harddisk drive.

The switch cable connects the switch panel to the FDD connector and LED / loudspeaker connector of the mainboard.



### Network cables

If Network cables attached DDP server for connecting DDP server and Front / Rear engines are damaged, change them to the follows new ones.

Parts Number	Parts Name	Manufacturer	Piece
G1528182	Printer Cable Set	Ricoh Printing Systems, Ltd.	2

### Netzkabel

Wenn beigefügte Netzwerkkabel des DDP Servers für das Anschließen des DDP Servers und der vorderen und hinteren Maschine beschädigt sind, tauschen Sie diese in die folgenden Neuen.

Teilnummer	Teil-Name	Herstellung	Teil
G1528182	Printer Cable Set	Ricoh Printing Systems, Ltd.	2

# The Service Menu

Some maintenance functions of the DDP Server are available as service menu through the serial interface.

The service menu allows to obtain general information about the DDP Server, check and change the communication settings, perform test prints, and to perform the InitDisk function. The serial interface can be used even if the communication settings of the DDP Server are not known.

The serial port is normally covered by a plate on the rear side of the DDP Server. To remove the plate, open the screws holding it.

Connect your PC to the DDP Server's serial port via a null-modem cable with a DB9 female connector on the DDP Server side. Set the connection to 9600 Baud, 1 stop bit, no parity.

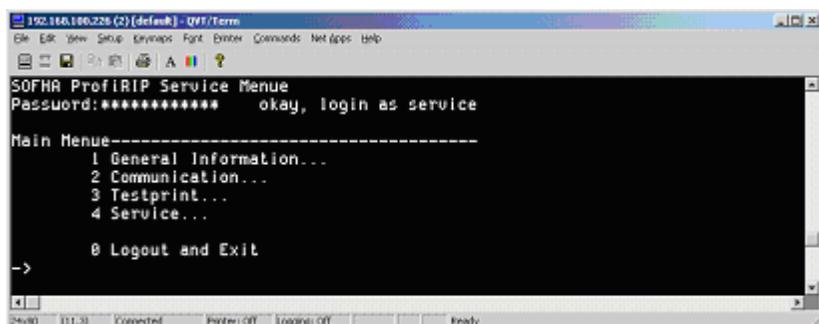
If the DDP Server's communication settings are known, you can use the same functions by connecting to it using a terminal program via IP port 2266.

To open the serial interface, type

login↵ (↵ is the Return key)

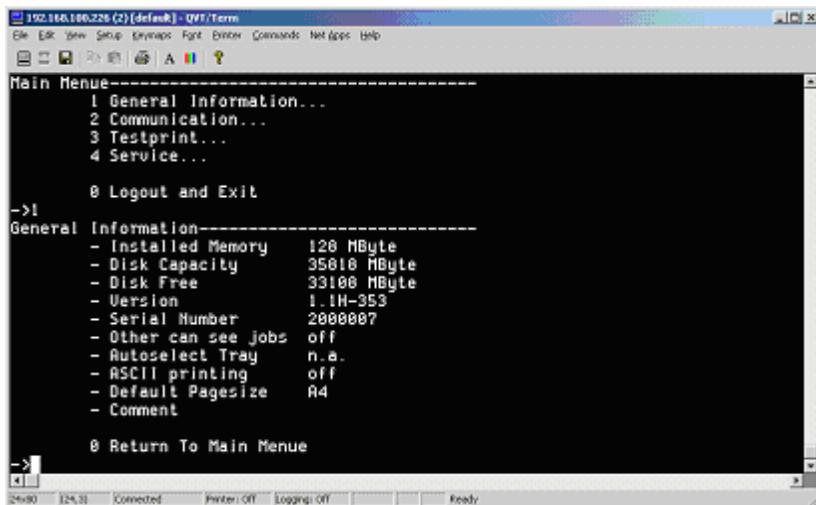
Note: There is no initial prompt, and the login line is not echoed. All further interaction is echoed.

You will be prompted for the password. Enter either the password for the administrator (installation dependent, default: void), or the password for the service technician (sofhaservice). Only the service technician can reset the administrator's password and perform the InitDisk function.

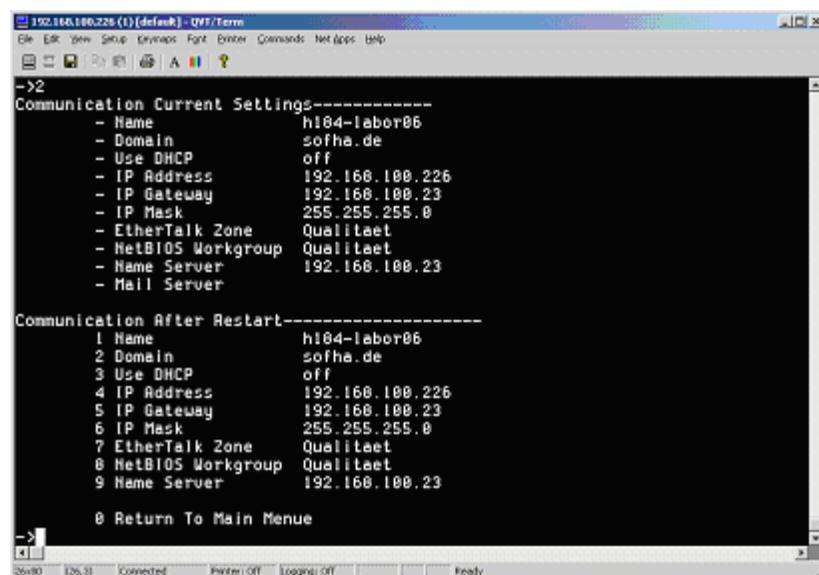


After the prompt, select one of the numbers offered and hit the return key.

General Information shows you general information about the DDP Server.



Communication Settings shows the current communication settings and the communication which will be taken after restart. Select one of the numbers to change communication settings.



Communication Settings shows the current communication settings and the communication which will be taken after restart. Select one of the numbers to change communication settings.

```

192.168.100.226 (1) [default] - QVT/Term
File Edit View Setup Keywords Font Printer Commands Net Apps Help
[Icons] [R] [W] [A] [C] [?]

->1
Name:production
Communication Current Settings-----
- Name           h184-labor06
- Domain         sofha.de
- Use DHCP       off
- IP Address     192.168.100.226
- IP Gateway    192.168.100.23
- IP Mask        255.255.255.0
- EtherTalk Zone Qualitaet
- NetBIOS Workgroup Qualitaet
- Name Server   192.168.100.23
- Mail Server

Communication After Restart-----
1 Name           production
2 Domain         sofha.de
3 Use DHCP       off
4 IP Address     192.168.100.226
5 IP Gateway    192.168.100.23
6 IP Mask        255.255.255.0
7 EtherTalk Zone Qualitaet
8 NetBIOS Workgroup Qualitaet
9 Name Server   192.168.100.23

8 Return To Main Menue
s Save Changes
->
26x80 326.31 Connected Printer Off Logging Off Ready

```

The Test print menu allows you to print the settings page or the font sample page.

```

192.168.100.226 (1) [default] - QVT/Term
File Edit View Setup Keywords Font Printer Commands Net Apps Help
[Icons] [R] [W] [A] [C] [?]

Main Menue-----
1 General Information...
2 Communication...
3 Testprint...
4 Service...

6 Logout and Exit
->3
Testprint Menue-----
1 Settings Page
2 Font Sample Page

8 Return To Main Menue
->
26x80 326.31 Connected Printer Off Logging Off Ready

```

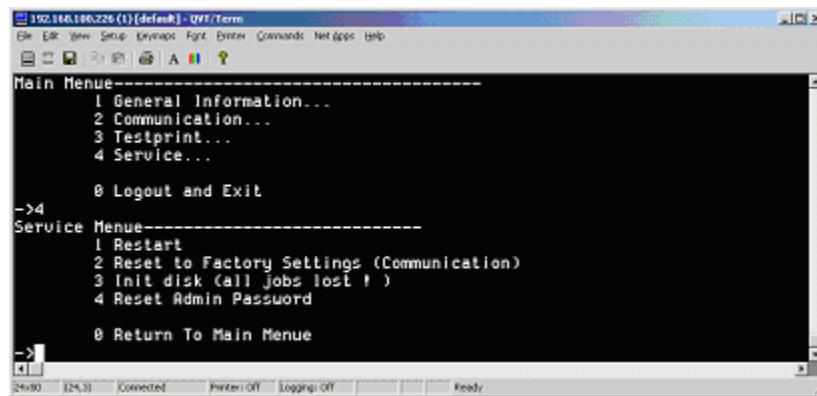
The service functions menu allows you to

- restart the DDP Server
- perform the Factory Defaults function (reset communication settings to default and reset administrator's password)
 

After applying this function you must enter new communication settings.  
Caution: No question asking for confirmation!
- perform the Initialize Disk function (clear the job and queue database)
 

Caution: This will delete all jobs and queues. Jobs and queues cannot be restored after this operation!  
Caution: No question asking for confirmation!
- reset the administrator's password to void.

The administrator can only restart the DDP Server and perform the Factory Defaults function.



To leave the service menu (main menu), enter 0 and hit the return key.

You can then login again with the procedure described above.

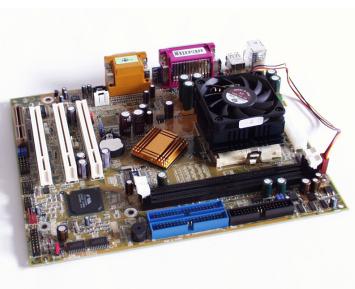
# Spare Parts

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## Spare Part List

The following spare parts are available for the DDP Server:

### Mainboard / CPU / Heatsink : ProfiRIP DDP



Part no.:	G1521176
Part size:	244 x 208 x 49 mm <sup>3</sup>
Packing box:	300 x 240 x 70 mm <sup>3</sup>
Net weight:	approx. 620 g
Gross weight:	approx. 890 g

### Memory Module (128 MB DIMM) : ProfiRIP DDP



Part no.:	G1521177
Part size:	134 x 26 x 3 mm <sup>3</sup>
Packing box:	200 x 140 x 35 mm <sup>3</sup>
Net weight:	approx. 20 g
Gross weight:	approx. 120 g

## Mainboard / CPU / Heatsink : ProfiRIP CM



Part no.: G1521193  
Part size: 244 x 198 x 64 mm<sup>3</sup>  
Packing box: 300 x 240 x 80 mm<sup>3</sup>  
Net weight: approx. 800 g  
Gross weight: approx. 1080 g

## Memory Module (512 MB DIMM) : ProfiRIP CM



Part no.: G1521194  
Part size: 134 x 30 x 3 mm<sup>3</sup>  
Packing box: 200 x 140 x 35 mm<sup>3</sup>  
Net weight: approx. 20 g  
Gross weight: approx. 120 g

## Mainboard with Case : FH2410



Part no.: G1528176

## Memory Module (512 MB DIMM) : FH2410



Part no.: G1528177

## **Harddisk Drive / Ethernet Card (LAN)**

### **ProfiRIP DDP / CM**



Part no.: G1521178  
HDD size: 146 x 102 x 25 mm<sup>3</sup>  
Packing box: 340 x 240 x 40 mm<sup>3</sup>  
Net weight: approx. 610 g  
Gross weight: approx. 840 g

## **Harddisk Drive / USB : FH2410**



Part no.: G1528178

## **Ethernet Card (Front / Rear Engine)**

### **ProfiRIP DDP / CM**



Part no.: G1521179  
Part size: 134 x 121 x 22 mm<sup>3</sup>  
Packing box: 200 x 140 x 35 mm<sup>3</sup>  
Net weight: approx. 50 g  
Gross weight: approx. 150 g

## **Ethernet Card (Front / Rear Engine) : FH2410**



Part no.: G1528179



## **Power Supply : ProfiRIP DDP / CM**



Part no.: G1521180  
Part size: 125 x 100 x 76 mm<sup>3</sup>  
Packing box: 150 x 150 x 150 mm<sup>3</sup>  
Net weight: approx. 940 g  
Gross weight: approx. 1020 g

## **Power Supply : FH2410**



Part no.: G1528180

## **Switch Panel : ProfiRIP DDP / CM**



Part no.: G1521181  
Part size: 42 x 121 x 22 mm<sup>3</sup>  
Packing box: 200 x 140 x 35 mm<sup>3</sup>  
Net weight: approx. 30 g  
Gross weight: approx. 130 g

## **Switch Panel : FH2410**



Part no.: G1528181

## **Printer Cable Set (2 pcs.) : ProfiRIP DDP / CM**



Part no.: G1521182  
Part size: 2000 x Ø19 mm<sup>2</sup> ea.  
Packing bag: 150 x 220 mm<sup>2</sup>  
Net weight: approx. 300 g  
Gross weight: approx. 310 g

## **Printer Cable (1 pc.) : FH2410**



Part no.: G1528182

## **Filter : FH2410**



Part no.: G1521353