Kingston Technology
486/Now!
Installation Guide

Models: 486/33PD3
486/33PS3
486/25PS3

486/Now!
Processor Upgrade
Installation Guide

For

IBM PS/2 Models 70, 80, and Portable 70

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Limited Warranty

KINGSTON TECHNOLOGY CORPORATION (hereinafter called KTC) warrants that this product is free from defective material and workmanship and, subject to the conditions set forth below, agrees to repair or replace any part of this product which proves defective by reason of improper workmanship or materials for a period of five years from the date of original retail purchase, without charge for parts and labor.

If this product does not perform as warranted herein, owners sole remedy shall be repair or replacement as provided below. In no event will KTC be liable for damages, lost revenue, lost wages, lost savings or any other incidental or consequential damages arising from purchase, use, or inability to use this product, even if KTC has been advised of the possibility of such damages.

Any defective product should be returned to your **local dealer** or **distributor,** along with a copy of your sales slip, product serial number and a detailed description of the problem you are experiencing.

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General Description

Congratulations on your purchase of the Kingston 486/Now! Processor upgrade board which replaces the 386 microprocessor chip in your computer. The 486/Now! provides your computer with a 486DX or 486SX microprocessor, and increases its power and performance to levels found only in much more expensive 486 machines.

The 486/Now! processor upgrade offers the highest performance for DOS, OS/2, and Windows applications. It is 100% compatible with the 386 CPU.

The 486/Now! processor upgrade includes these important features:

- On board **33Mhz DX, 33Mhz SX or 25Mhz SX** processor
- Built-In Math-Coprocessor **(DX version only)**
- **8K** of Internal Code and Data Cache.
- Paged, Virtual Memory Management.
- Does not use an expansion slot.

486/33PD3, 486/33PS3 & 486/25PD3 Support These Machines:

All IBM PS/2 MODEL 80 machines
All IBM PS/2 MODEL 70 machines
Except B series (i.e. 8570-B21, B61) These machines are factory equipped with 486 processors.

486/33PD3-P70 & 486/33PS3-P70 Support This Machine:

IBM PS/2 P70 Portable Model 8573-061 20Mhz machines

486/33PD3-P70LP & 486/33PS3-P70LP Support These Machines:

IBM PS/2 P70 Portable Model 8573-031 16Mhz machines
IBM PS/2 P70 Portable Model 8573-121 20Mhz machines
IBM PS/2 5530 Portable Desktop

Package Contents

In addition to this manual, you also receive the following items:

- o 486/Now! processor upgrade board.
- o IC Removal tool.
- o Kingston Utility diskette.

If any item is missing or damaged, contact your Kingston dealer for replacement. Be sure the items you receive are genuine Kingston Technology products. The printed circuit board has the Kingston name etched on its surface. If the Kingston name is missing, it's not a genuine Kingston product.

Packaging Materials

The KINGSTON TECHNOLOGY 486/Now! boards are shipped in a special anti-static envelope which protects them from shock and static electricity that could cause severe damage. You should save this packaging material just in case you need to reship the 486/Now! in the future.

Before you remove any component from its packaging, be sure you discharge any static electricity by touching a properly grounded metal material.

Order Information

Order **486/33PD3** 33Mhz for Models 80 & 70 (**Math-Coprocessor built-in**).
Order **486/33PS3** 33Mhz for Models 80 & 70 (**Math-Coprocessor not built-in**).
Order **486/25PS3** 25Mhz for Models 80 & 70 (**Math-Coprocessor not built-in**).
Order **486/33PD3-P70** 33Mhz for P70 (Model 8573-061) **(Math-Co)**.
Order **486/33PS3-P70** 33Mhz for P70 (Model 8573-061) **(No Math-Co)**.
Order **486/33PD3-P70LP** 33Mhz for P70 (Mod 8573-031, 121), & 5530**(Math-Co)**.
Order **486/33PS3-P70LP** 33Mhz for P70 (Mod 8573-031, 121), & 5530 **(No Math-Co)**.

Physical Layout

The Kingston Technology 486/Now! Processor upgrade board has 3 different board type models. Each board type is available with either a 33Mhz DX or 33Mhz SX version. There is also a 25Mhz SX version for the PS/2 Model 70 and 80 computers. The first board type, model **486/33PD3, 486/33PS3** or **486/25PS3** support PS/2 Models 70 and 80. See Figure 1-1 and 1-2. The second and third board types support the PS/2 P70 portable. The **486/33PD3-P70** and **486/33PS3-P70** support the P70 20Mhz model 8573-061. See Figure 1-3 and 1-4. The CPU socket is located to the right of the SIMM sockets on the system board. The **486/33PD-P70LP** and **486/33PS3-P70LP** support the 16Mhz model 8573-031 and the 20Mhz model 8573-121. These system boards have the CPU socket located above the SIMM memory sockets. This board type also supports the PS/2 Model 5530. See Figure 1-5 and 1-6.

486/33PD3 and 486/25PS3 Board Type

Insert Photo

486/33PD3
Top
(show arrow to Pin 1)
(white-out Rev A7)

Figure 1-1 Top View

Insert Photo

486/33PD3
Bottom
(show arrow to SW1 jumper)

Figure 1-2 Bottom View

486/33PD3-P70 & 486/33PS3-P70 Board Type

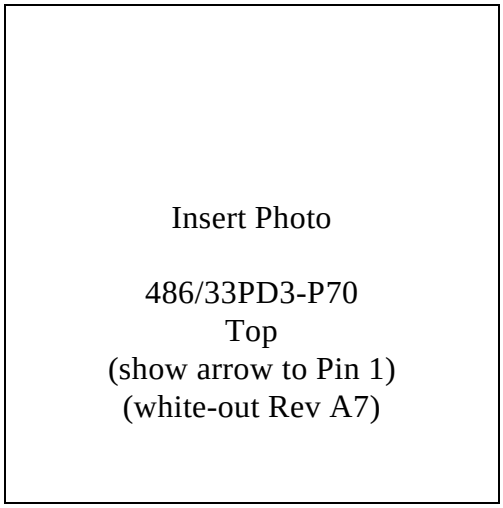


Figure 1-3 Top View

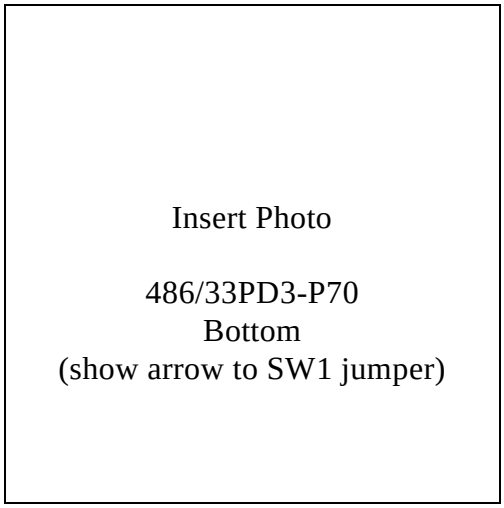


Figure 1-4 Bottom View

486/33PD3-P70LP & 486/33PS3-P70LP Board Type

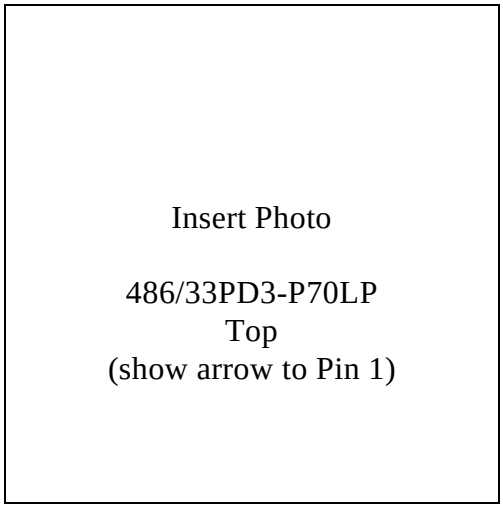


Figure 1-5 Top View

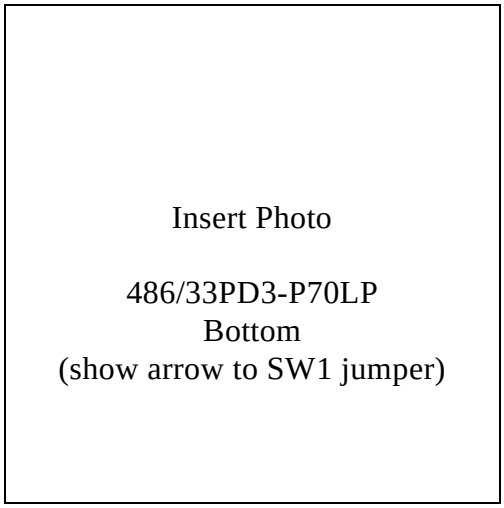


Figure 1-6 Bottom View

Switch Settings

The 486/Now! contains a 4-switch block (SW1) mounted to the processor upgrade board. These four switches must be set to your specific computer motherboard's speed. The IBM PS/2 Model 70 and 80 can have either a 16Mhz, 20Mhz, or 25Mhz system board. There is only one setting for the P70 Models, but they are listed separately by board type. Use the following table to determine which motherboard you have and match the appropriate switch settings to SW1 on the 486/Now! upgrade.

CONFIGURATION TABLES

IBM PS/2 M70	SW1	
16MHZ (See Fig. 2) MOTHER BOARD	1	OFF
	2	ON
	3	ON

IBM PS/2 M70	SW1	
16MHZ (See Fig. 3) MOTHER BOARD	1	ON
	2	ON
	3	OFF

IBM PS/2 M70	SW1	
20 MHZ (See Fig. 3) MOTHER BOARD	1	OFF
	2	ON
	3	ON

IBM PS/2 M70	SW1	
25 MHZ (See Fig. 4) MOTHER BOARD	1	ON
	2	ON
	3	ON

IBM PS/2 M80	SW1	
16 MHZ (See Fig. 5) MOTHER BOARD	1	OFF
	2	OFF
	3	ON

IBM PS/2 M80	SW1	
20 MHZ (See Fig. 6) MOTHER BOARD	1	OFF
	2	OFF
	3	ON

IBM PS/2 M80	SW1	
25 MHZ (See Fig. 7) MOTHER BOARD	1	ON
	2	OFF
	3	ON

IBM PS/2 P70	SW1	
8573-061 20 MHZ (See Fig. 8) MOTHER BOARD	1	OFF
	2	ON
	3	OFF

IBM PS/2 P70	SW1	
8573-031 16 MHZ 8573-121 20 MHZ (See Fig. 9) MOTHER BOARD	1	OFF
	2	ON
	3	OFF

IBM PS/2 5530	SW1	
25 MHZ (See Fig. 10) MOTHER BOARD	1	ON
	2	ON
	3	ON

ALL MODELS	SW1	
FAST POST ON*	4	ON
FAST POST OFF*	4	OFF

*** Note:** SW1 Switch 4 default is set to the ON position. This allows the 486/Now processor to run POST (Power-On-Self-Test) at a fast 486 level. In some cases, an 8603 mouse error will occur because of the faster speed. Also if an IBM XGA adapter is installed in the system and a display problem occurs, changing Switch 4 to OFF should correct either problem.

Installing 486/Now!

IBM PS/2 MODEL 70 (16MHZ Fig. 2 motherboard)

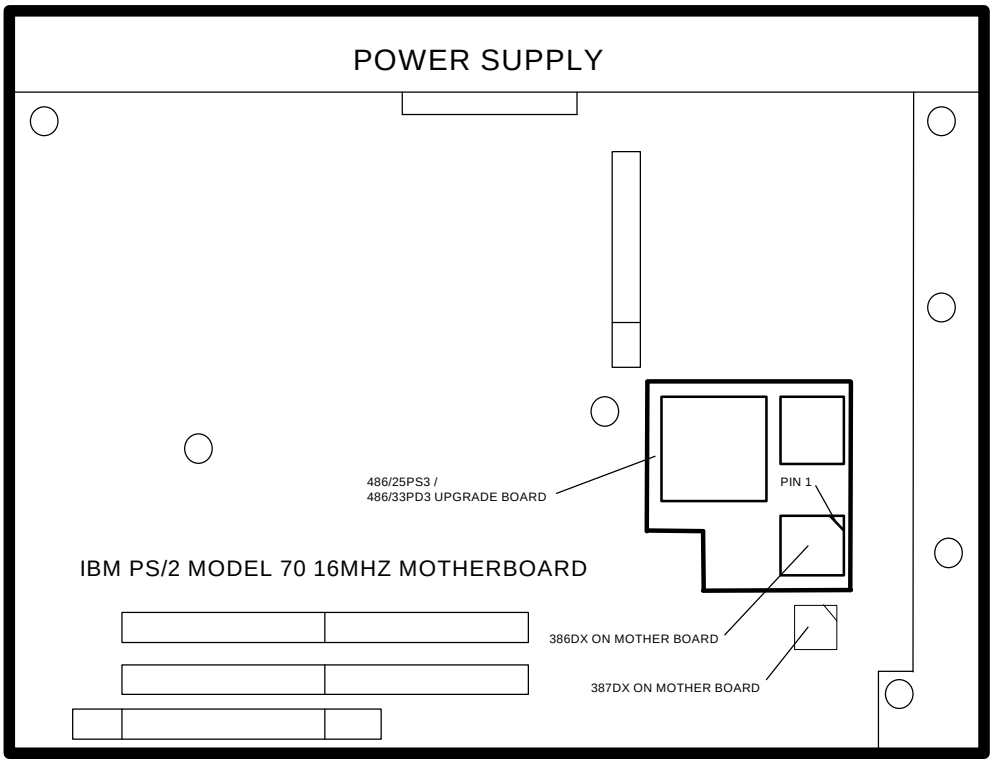


Figure 2

STEP 1

Turn off power and disconnect any cables from computer.

STEP 2

Open the chassis and remove all expansion-bus adapters. (Label each adapter so you can return it to its original slot).

STEP 3

Remove the 386 CPU chip on the motherboard by using the IC removal tool. Carefully insert the IC removal tool on one side between the 386 CPU chip and the socket. Gently pry upward to lift just a little, then lift slightly from other side. Alternate between sides until the chip is completely out of the socket. (Save the 386 CPU chip so you can re-install it if you ever need to return temporarily to the old configuration). See Figure 2-1.

Note: You may remove the Fixed Disk Drive, Floppy Drive, Adapter Card, and the internal holder chassis to clear the area for easier installation.

STEP 4

Remove the 387 Math-Coprocessor on motherboard, if present, by inserting the IC removal tool on one side between the 387 FPU chip and the socket. Gently pry upward to lift just a little, then try other side until the chip is completely out of the socket. See

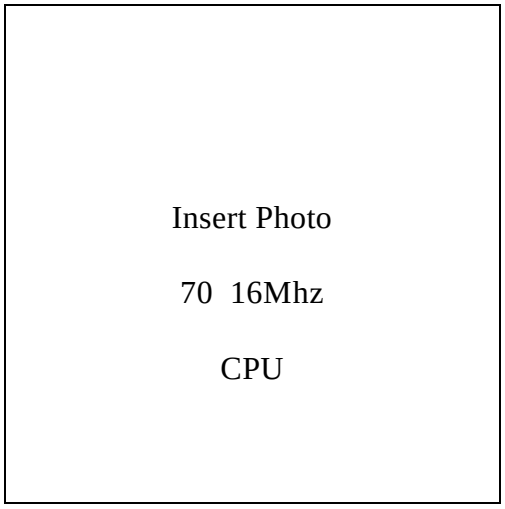


Figure 2-2 below.

Figure 2-1 Removing the CPU

2 Removing Math-Co

Figure 2-

Insert Photo

70 16Mhz

Math-Coprocessor

STEP 6

Install the Kingston 486/33PD3, 486/33PS3 or 486/25PS3 board into 386 CPU socket. Make sure pin 1 is positioned correctly and press the board firmly in place. See Figure 2-3.

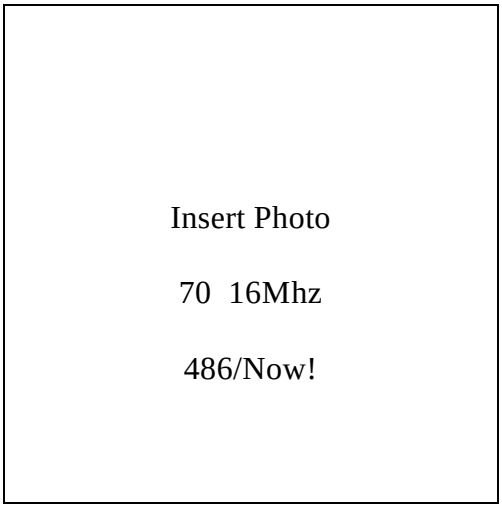


Figure 2-3 Installing 486/Now!

STEP 7

Reinstall the internal holder chassis, Adapter Card, Floppy Drive, and Hard Drive.

STEP 8

Reinstall all expansion bus adapters and close the chassis.

STEP 9

Reconnect all the cables back to computer.

STEP 10

End of installation. You can go to **FIRST TIME POWER UP** section now.

IBM PS/2 MODEL 70 (16MHZ Fig. 3 or 20MHZ motherboard)

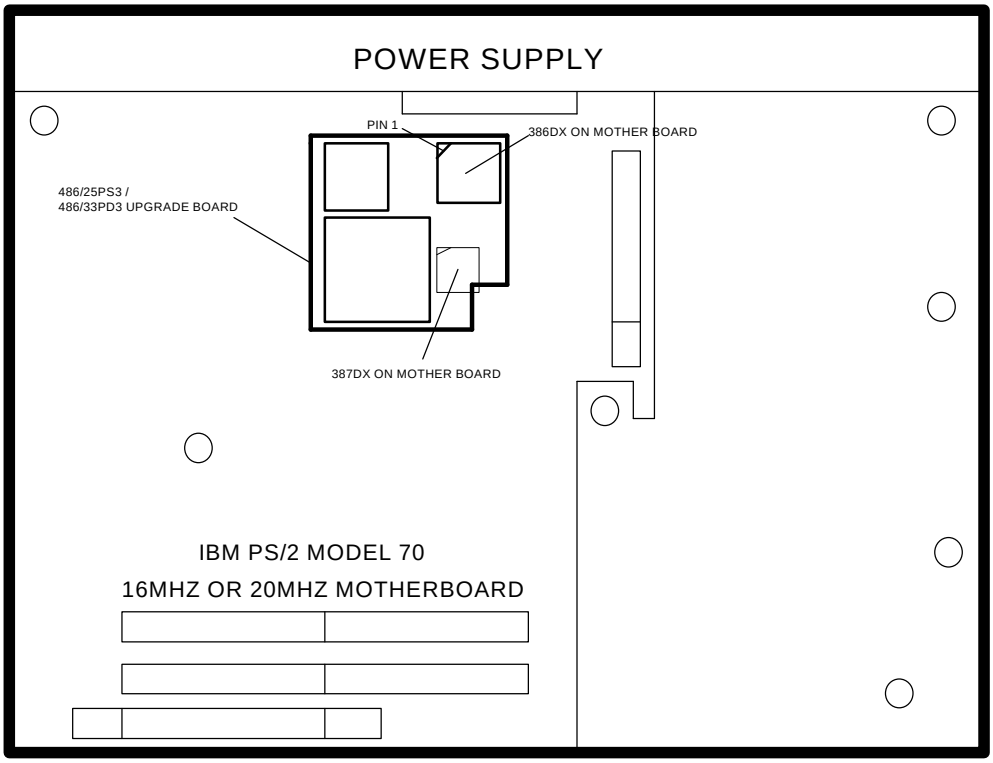


Figure 3

STEP 1

Turn off power and disconnect any cables from computer.

STEP 2

Open the chassis and remove all expansion-bus adapters. (Label each adapter so you can return it to its original slot).

STEP 3

Remove Fixed Disk Drive, Floppy Drive, Adapter Card, and the internal holder chassis.

STEP 4

Remove the 386 CPU chip on the motherboard by using the IC removal tool. Carefully insert the IC removal tool on one side between the 386 CPU chip and the socket. Gently pry upward to lift just a little, then lift slightly from other side. Alternate between sides until the chip is completely out of the socket. (Save the 386 CPU chip so you can re-install it if you ever need to return temporarily to the old configuration). See Figure 3-1 below.

STEP 5

Remove the 387 Math-Coprocessor off the motherboard, if present, by inserting the IC removal tool on one side between the 387 FPU chip and the socket. Gently pry upward to lift just a little, then try other side until the chip is completely out of the socket. See Figure 3-2 below.

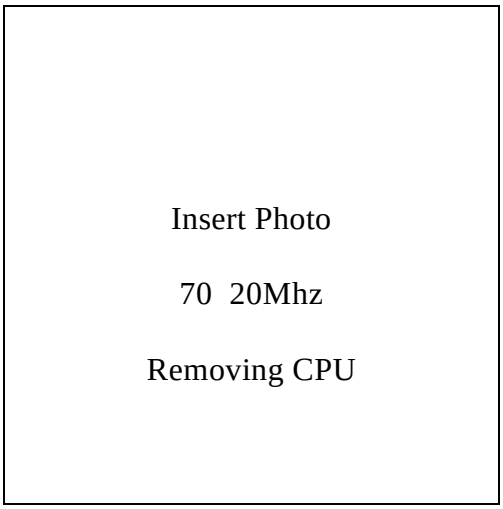


Figure 3-1 Removing the CPU

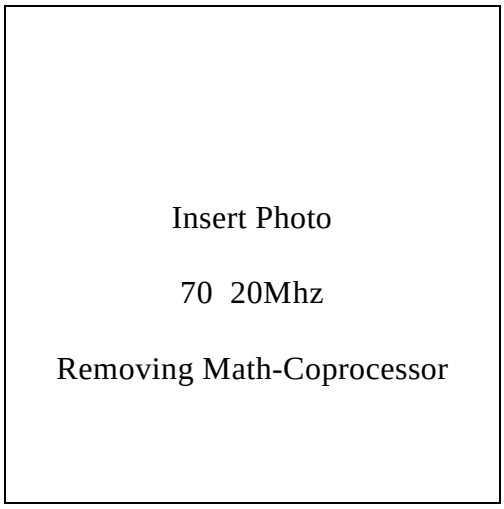


Figure 3-2 Removing Math-Co

STEP 6

Install the Kingston 486/33PD3, 486/33PS3 or 486/25PS3 board into 386 CPU socket. Make sure pin 1 is positioned correctly and press the board firmly in place. See Figure 3-3.

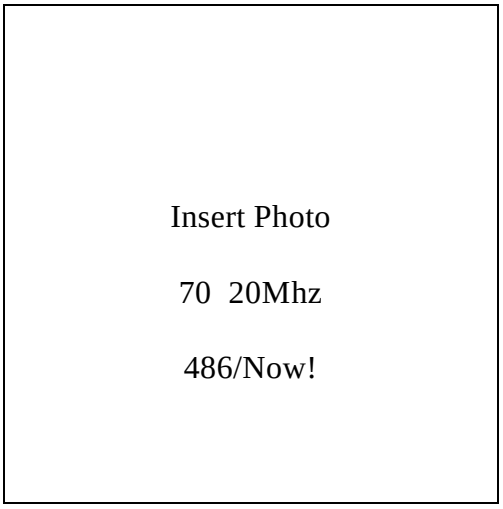


Figure 3-3 Installing 486/Now!

STEP 7

Reinstall the internal holder chassis, Adapter Card, Floppy Drive, and Fixed Disk Drive.

STEP 8

Reinstall all expansion bus adapters and close the chassis.

STEP 9

Reconnect all the cables back to computer.

STEP 10

End of installation. You can go to **FIRST TIME POWER UP** section now.

IBM PS/2 MODEL 70 (25MHZ)

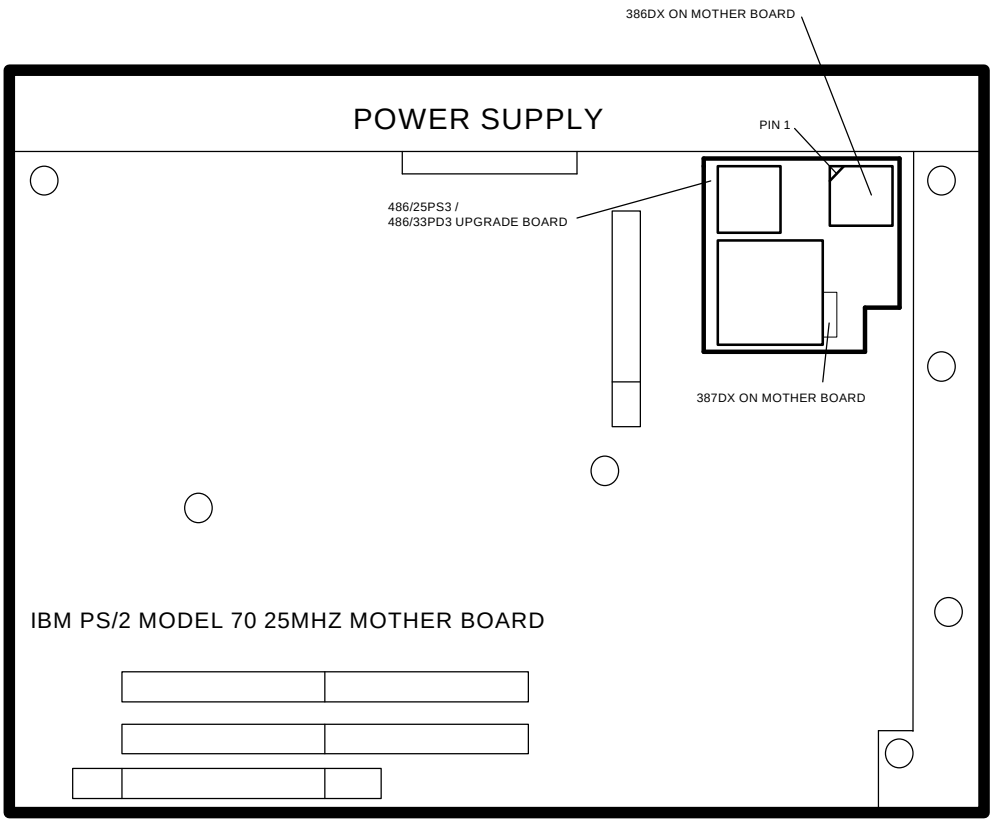


Figure 4

STEP 1

Turn off power and disconnect any cables from computer.

STEP 2

Open the chassis and remove all expansion-bus adapters. (Label each adapter so you can return it to its original slot).

STEP 3

Remove Fixed Disk Drive, Floppy Drive, Adapter Card, and the internal holder chassis.

STEP 4

Remove the 386 CPU chip on the motherboard by using the IC removal tool. Carefully insert the IC removal tool on one side between the 386 CPU chip and the socket. Gently pry upward to lift just a little, then lift slightly from other side. Alternate between sides until the chip is completely out of the socket. (Save the 386 CPU chip so you can re-install it if you ever need to return temporarily to the old configuration). See Figure 4-1 below.

STEP 5

Remove the 387 Math-Coprocessor on motherboard, if present, by inserting the IC removal tool on one side between the 387 FPU chip and the socket. Gently pry upward to lift just a little, then try other side until the chip is completely out of the socket. See Figure 4-2 below.

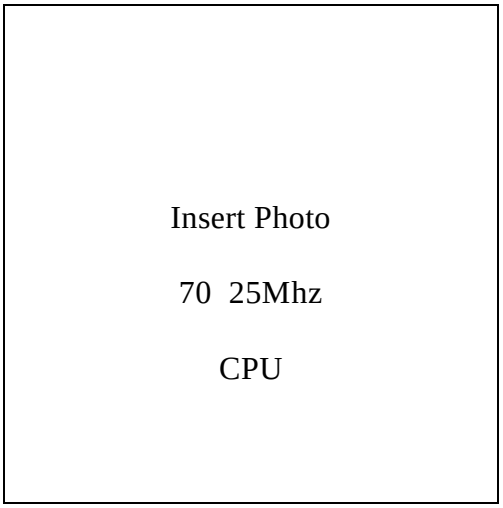


Figure 4-1 Removing the CPU

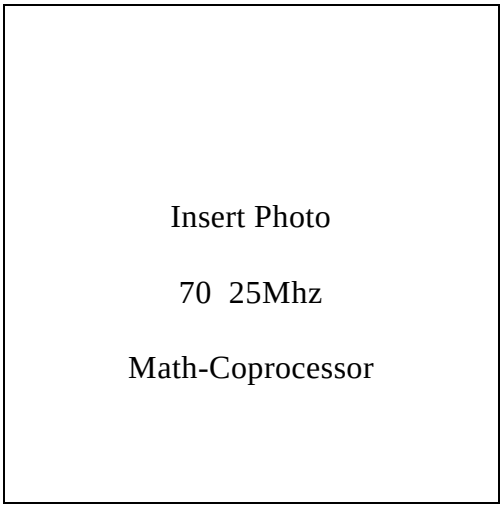


Figure 4-2 Removing Math-Co

STEP 6

Install the Kingston 486/33PD3, 486/33PS3 or 486/25PS3 board into 386 CPU socket. Make sure pin 1 is positioned correctly and press the board firmly in place. See Figure 4-3.

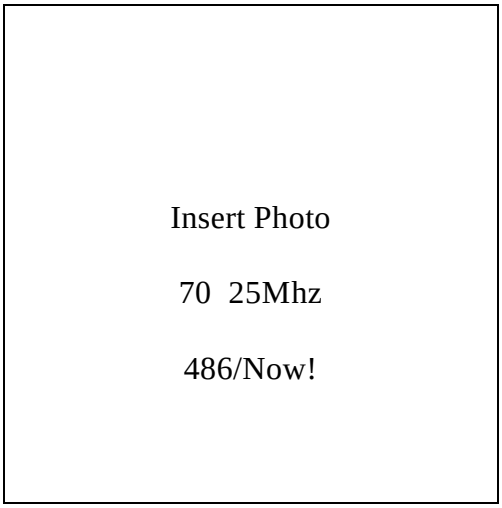


Figure 4-3 Installing 486/Now!

STEP 7

Reinstall the internal holder chassis, Adapter Card, Floppy Drive, and Fix Disk Drive.

STEP 8

Reinstall all expansion bus adapters and close the chassis.

STEP 9

Reconnect all the cables back to computer.

STEP 10

End of installation. You can go to **FIRST TIME POWER UP** section now.

IBM PS/2 MODEL 80 (16MHZ)

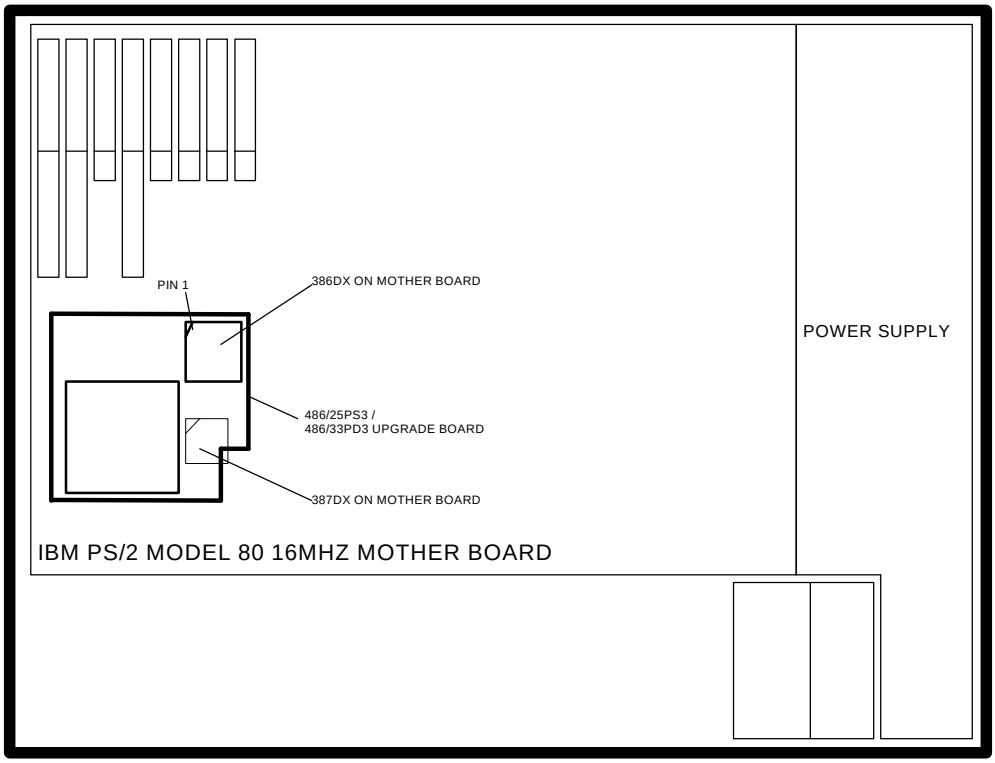


Figure 5

STEP 1

Turn off power and disconnect any cables from computer.

STEP 2

Open the chassis and remove all expansion-bus adapters. (Label each adapter so you can return it to its original slot).

STEP 3

Remove the 386 CPU chip on the motherboard by using the IC removal tool. Carefully insert the IC removal tool on one side between the 386 CPU chip and the socket. Gently pry upward to lift just a little, then lift slightly from other side. Alternate between sides until the chip is completely out of the socket. (Save the 386 CPU chip so you can re-install it if you ever need to return temporarily to the old configuration). See Figure 5-1.

STEP 4

Remove the 387 Math-Coprocessor on motherboard, if present, by inserting the IC removal tool on one side between the 387 FPU chip and the socket. Gently pry upward to lift just little, then try other side until the chip is completely out of the socket. See Figure 5-2 below.

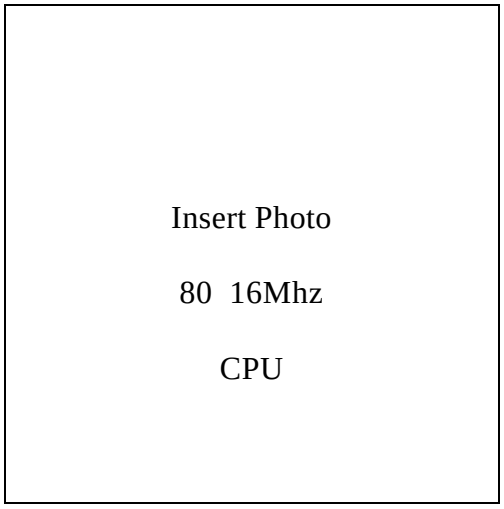


Figure 5-1 Removing the CPU

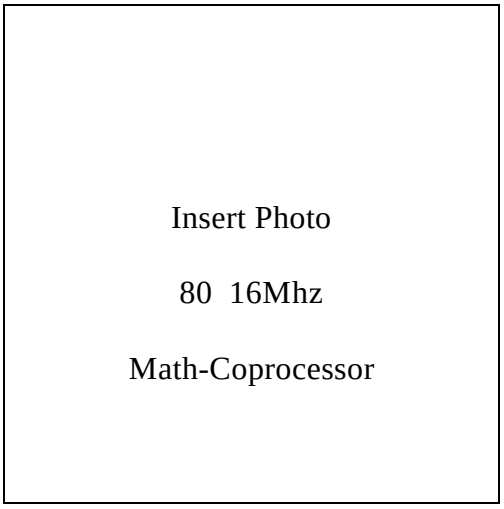


Figure 5-2 Removing Math-Co

STEP 5

Install the Kingston 486/33PD3, 486/33PS3 or 486/25PS3 board into 386 CPU socket. Make sure pin 1 is positioned correctly and press the board firmly in place. See Figure 5-3.

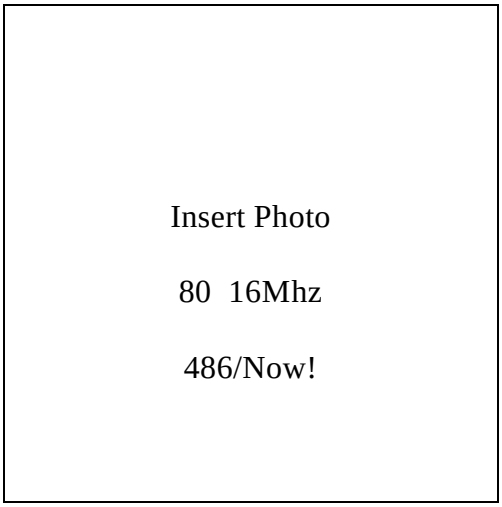


Figure 5-3 Installing 486/Now!

STEP 6

Reinstall all expansion bus adapters and close the chassis.

STEP 7

Reconnect all the cables back onto the computer.

STEP 8

End of installation. You can go to **FIRST TIME POWER UP** section now.

IBM PS/2 MODEL 80 (20MHZ)

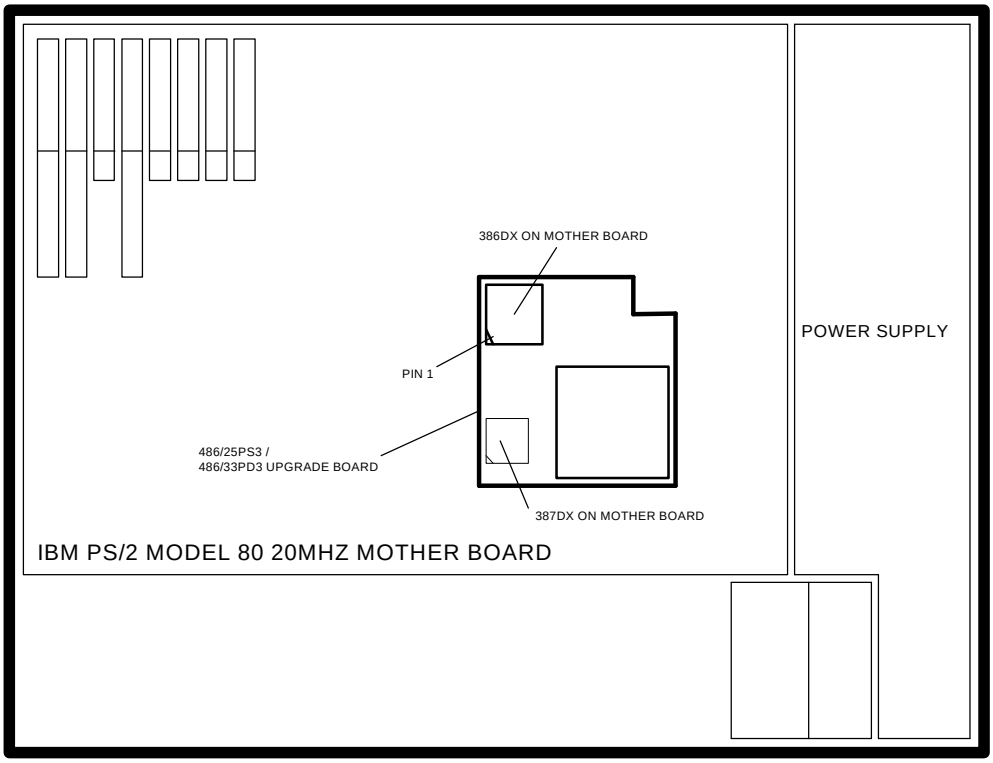


Figure 6

STEP 1

Turn off power and disconnect any cables from computer.

STEP 2

Open the chassis and remove all cables between disk controller and fixed disk drive, remove power cable between disk drive and power supply.

STEP 3

Remove the Fixed Disk Drive and the internal holder case.

STEP 4

Remove the 386 CPU chip on the motherboard by using the IC removal tool. Carefully insert the IC removal tool on one side between the 386 CPU chip and the socket. Gently pry upward to lift just a little, then lift slightly from other side. Alternate between sides until the chip is completely out of the socket. (Save the 386 CPU chip so you can re-install it if you ever need to return temporarily to the old configuration). See Figure 6-1 below.

STEP 5

Remove the 387 Math-Coprocessor on motherboard, if present, by inserting the IC removal tool on one side between the 387 FPU chip and the socket. Gently pry upward to lift just little, then try other side until the chip is completely out of the socket. See Figure 6-2 below.

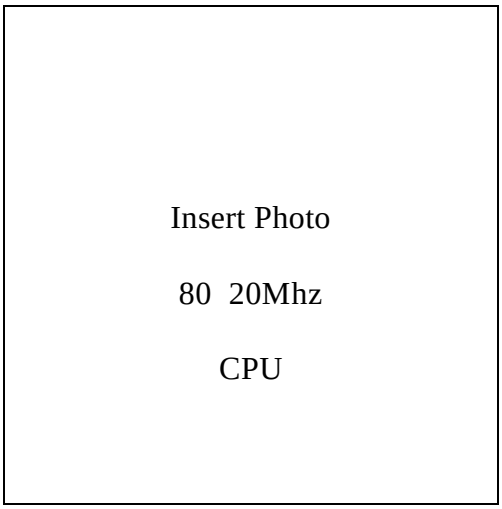


Figure 6-1 Removing the CPU

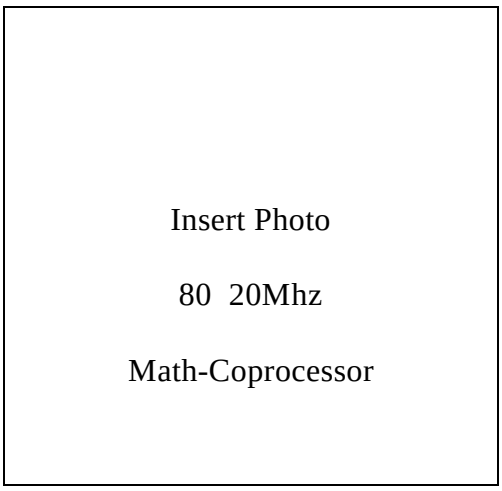


Figure 6-2 Removing Math-Co

STEP 6

Install the Kingston 486/33PD3, 486/33PS3 or 486/25PS3 board into 386 CPU socket. Make sure pin 1 is positioned correctly and press the board firmly in place. See Figure 6-3.

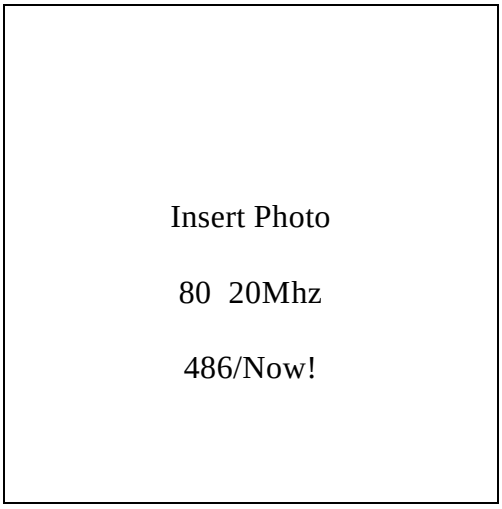


Figure 6-3 Installing 486/Now!

STEP 7

Reinstall the internal holder case and Fix Disk Drive.

STEP 8

Reinstall all cables between disk controller and fixed disk drive, reinstall power cable from fixed disk drive to power supply and close the chassis.

STEP 9

Reconnect all the cables back to computer.

STEP 10

End of installation. You can go to **FIRST TIME POWER UP** section now.

IBM PS/2 MODEL 80 (25MHZ)

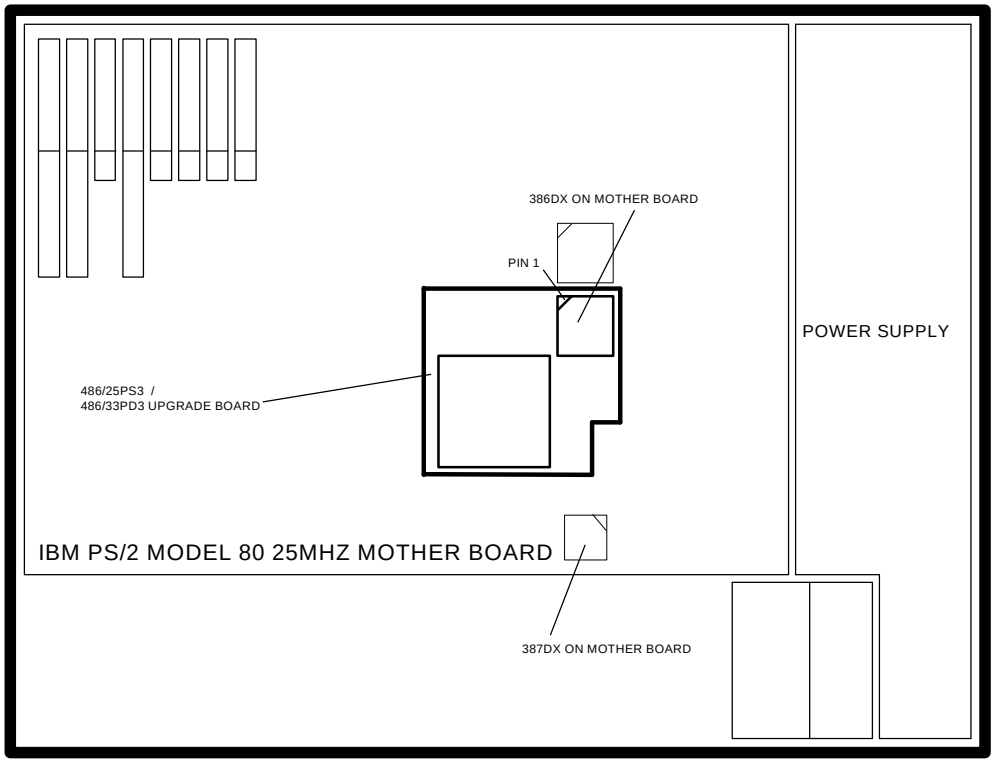


Figure 7

STEP 1

Turn off power and disconnect any cables from computer.

STEP 2

Open the chassis and remove all cables between disk controller and fixed disk drive, remove power cable between disk drive and power supply.

STEP 3

Remove the Fixed Disk Drive and the internal holder case.

STEP 4

Remove the 386 CPU chip on the motherboard by using the IC removal tool. Carefully insert the IC removal tool on one side between the 386 CPU chip and the socket. Gently pry upward to lift just a little, then lift slightly from other side. Alternate between sides until the chip is completely out of the socket. (Save the 386 CPU chip so you can re-install it if you ever need to return temporarily to the old configuration). See Figure 7-1 below.

STEP 5

Remove the 387 Math-Coprocessor on motherboard, if present, by inserting the IC removal tool on one side between the 387 FPU chip and the socket. Gently pry upward to lift just little, then try other side until the chip is completely out of the socket. See Figure 7-2 below.

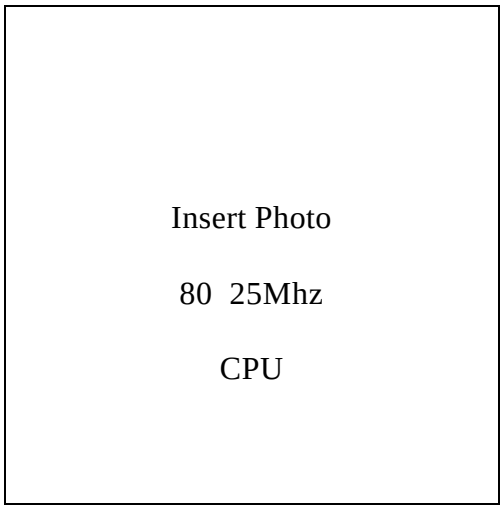


Figure 7-1 Removing the CPU

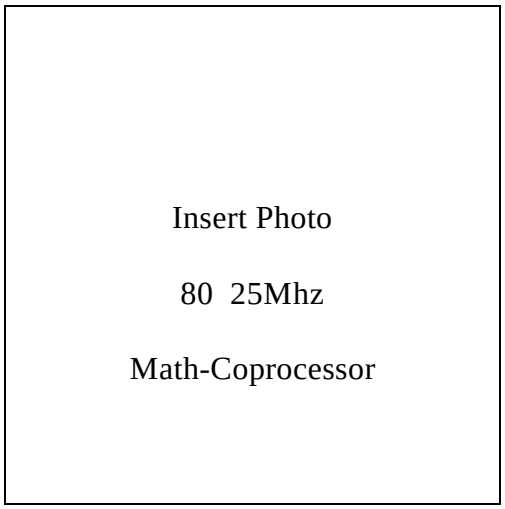


Figure 7-2 Removing Math-Co

STEP 6

Install the Kingston 486/33PD3, 486/33PS3 or 486/25PS3 board into 386 CPU socket. Make sure pin 1 is positioned correctly and press the board firmly in place. See Figure 7-3.

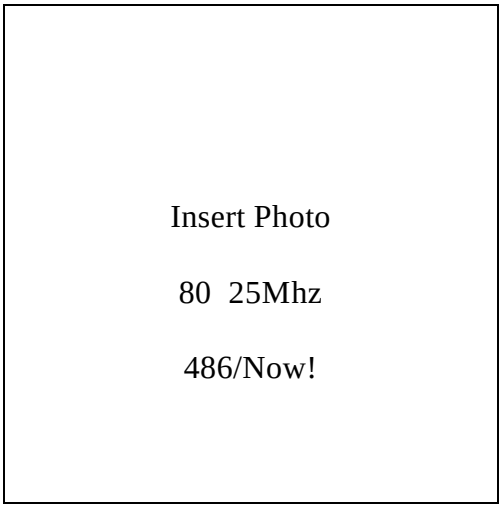


Figure 7-3 Installing 486/Now!

STEP 7

Reinstall the internal holder case and Fixed Disk Drive.

STEP 8

Reinstall all cables between disk controller and fixed disk drive, reinstall power cable from fixed disk drive to power supply and close the chassis.

STEP 9

Reconnect all the cables back to computer.

STEP 10

End of Installation. You can go to **FIRST TIME POWER UP** section now.

IBM PS/2 MODEL P70 (061 20MHZ)

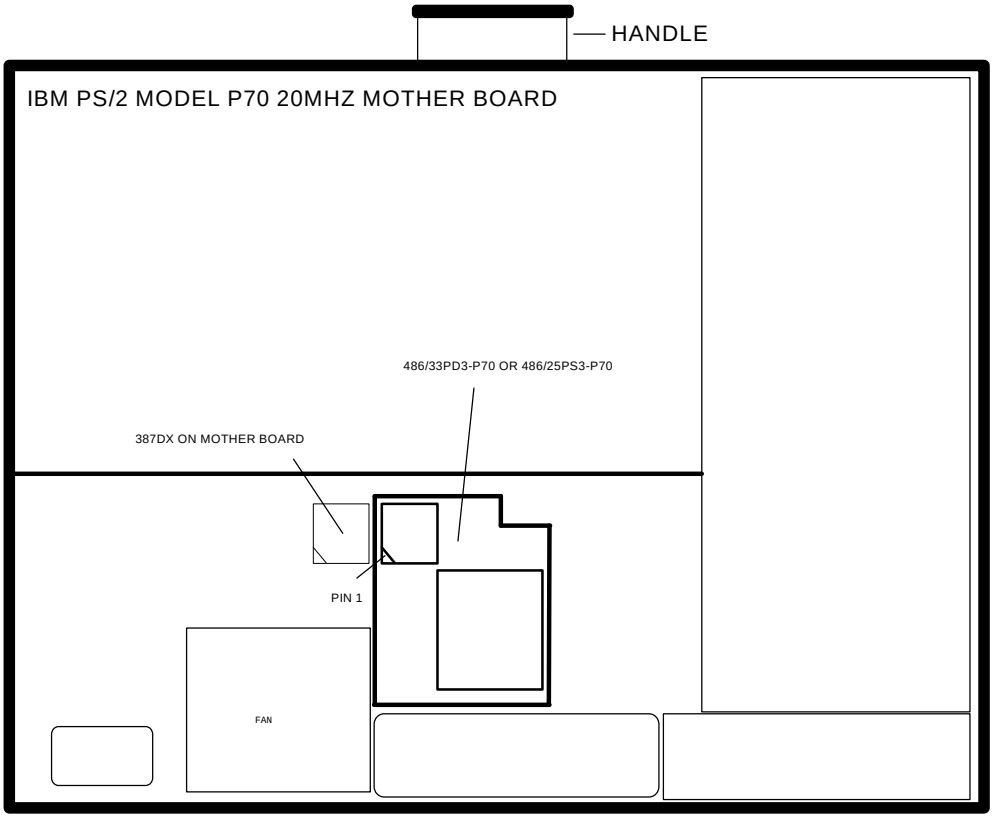


Figure 8

STEP 1

Turn off power and disconnect any cables from computer.

STEP 2

Remove all cables from back cover including power cord.

STEP 3

Remove the back cover.

STEP 4

Remove the 386 CPU chip on the motherboard by using the IC removal tool. Carefully insert the IC removal tool on one side between the 386 CPU chip and the socket. Gently pry upward to lift just a little, then lift slightly from other side. Alternate between sides until the chip is completely out of the socket. (Save the 386 CPU chip so you can re-install it if you ever need to return temporarily to the old configuration). See Figure 8-1 below.

STEP 5

Remove the 387 Math-Coprocessor on motherboard, if present, by inserting the IC removal tool on one side between the 387 FPU chip and the socket. Gently pry upward to lift just little, then try other side until the chip is completely out of the socket. See Figure 8-2 below.

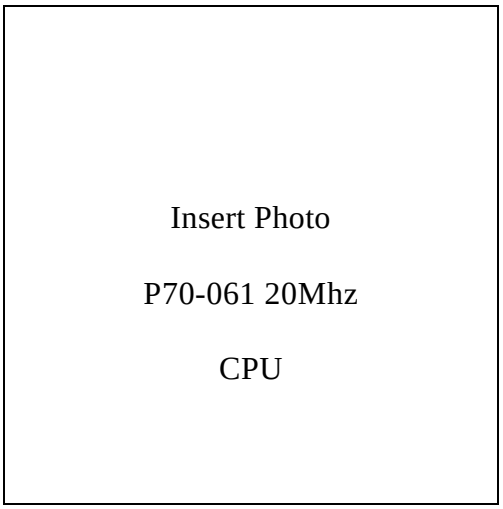


Figure 8-1 Removing the CPU

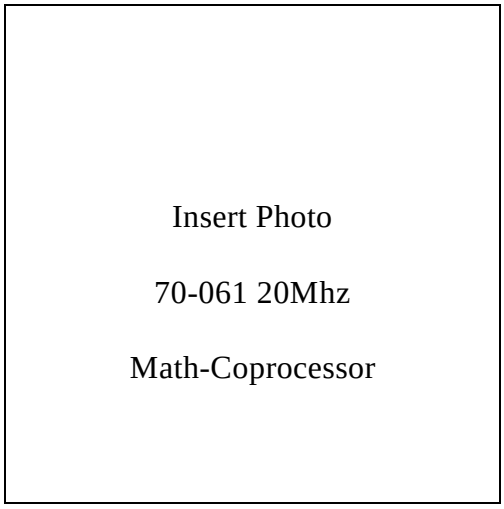


Figure 8-2 Removing Math-Co

STEP 6

Install the Kingston 486/33PD3-P70 or 486/33PS3-P70 board into the 386 CPU socket. Make sure pin 1 is positioned correctly and press the board firmly in place. See Figure 8-3.

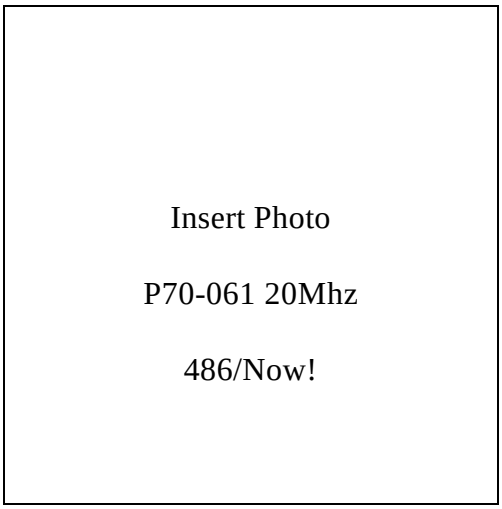


Figure 8-3 Installing 486/Now!

STEP 7

Reinstall the back cover.

STEP 8

Reconnect all the cables back to computer.

STEP 9

End of installation. You can go to **FIRST TIME POWER UP** section now.

IBM PS/2 MODEL P70LP (16MHZ & 121 20MHZ)

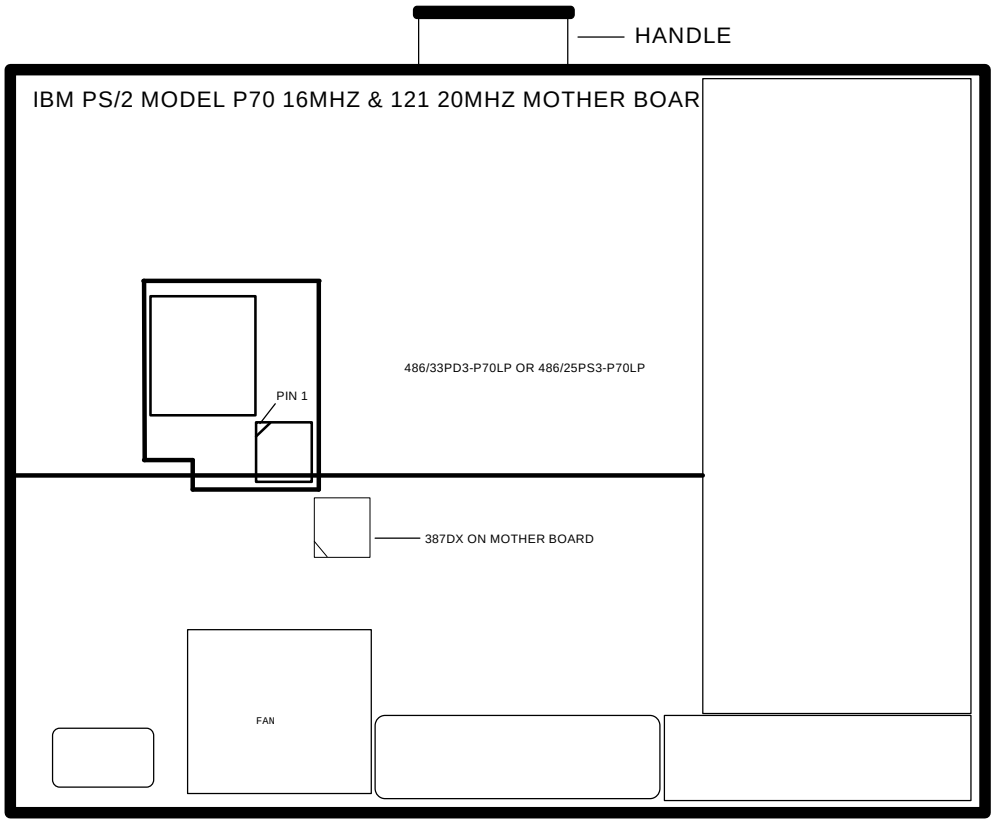


Figure 9

STEP 1

Turn off power and disconnect any cables from computer.

STEP 2

Remove all cables from back cover including power cord.

STEP 3

Remove the back cover.

STEP 4

Remove the 386 CPU chip on the motherboard by using the IC removal tool. Carefully insert the IC removal tool on one side between the 386 CPU chip and the socket. Gently pry upward to lift just a little, then lift slightly from other side. Alternate between sides until the chip is completely out of the socket. (Save the 386 CPU chip so you can re-install it if you ever need to return temporarily to the old configuration). See Figure 9-1 below.

STEP 5

Remove the 387 Math-Coprocessor on motherboard, if present, by inserting the IC removal tool on one side between the 387 FPU chip and the socket. Gently pry upward to lift just little, then try other side until the chip is completely out of the socket. See Figure 9-2 below.

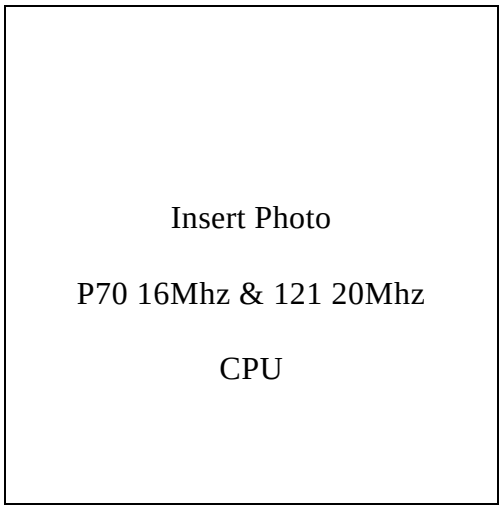


Figure 9-1 Removing the CPU

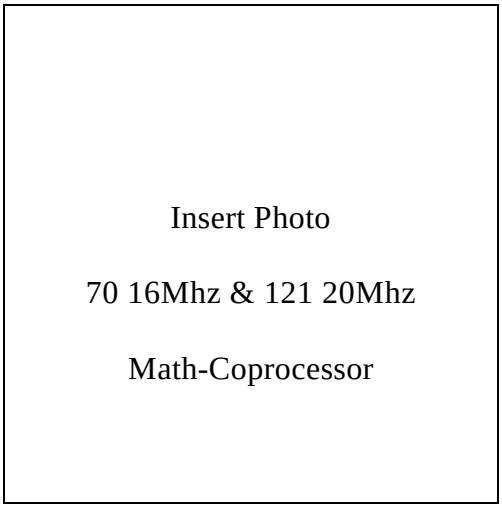


Figure 9-2 Removing Math-Co

STEP 6

Install the Kingston 486/33PD3-P70LP & 486/33PS3-P70LP board into 386 CPU socket. Make sure pin 1 is positioned correctly and press the board firmly in place. See Figure 9-3.

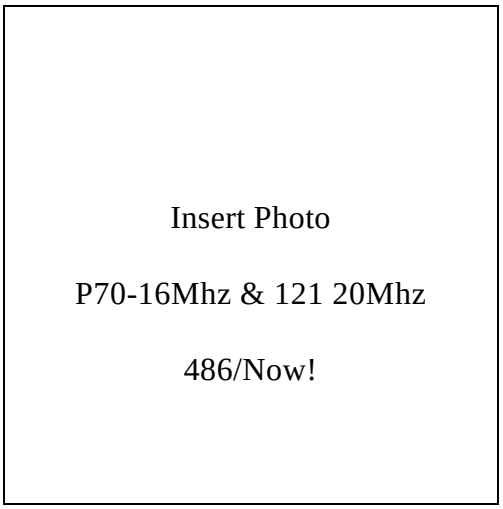


Figure 9-3 Installing 486/Now!

STEP 7

Reinstall the back cover.

STEP 8

Reconnect all the cables back to computer.

STEP 9

End of installation. You can go to **FIRST TIME POWER UP** section now.

IBM PS/2 MODEL 5530

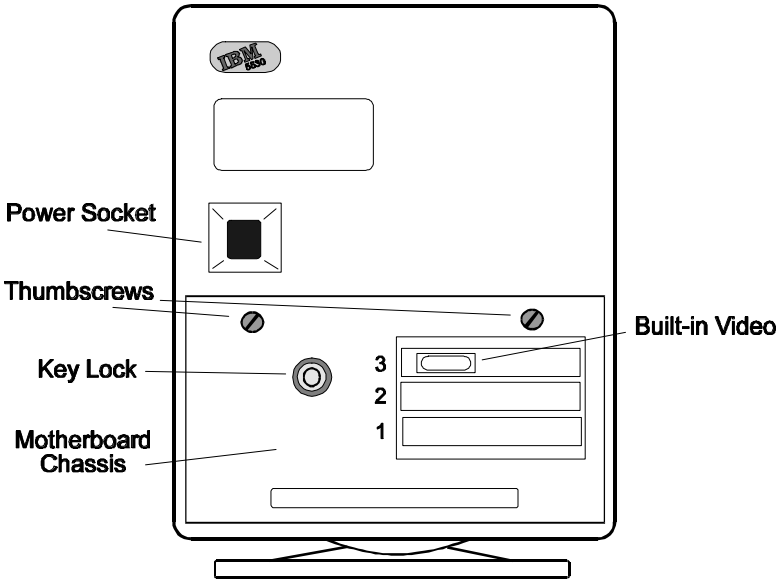


Figure 10 Model 5530 Back View

STEP 1

Turn off power and disconnect any cables from back of computer (ie. keyboard, mouse, power chord, and built-in video cable).

STEP 2

Untighten both thumbscrews manually or with a flat-blade screwdriver. Turn key to unlock position. Slide motherboard chassis out from rear of computer.

STEP 3

Remove all micro channel adapter cards from the expansion slots.

STEP 4

Remove the Speaker/Battery Cable and Floppy Cable connectors from the motherboard.

STEP 5

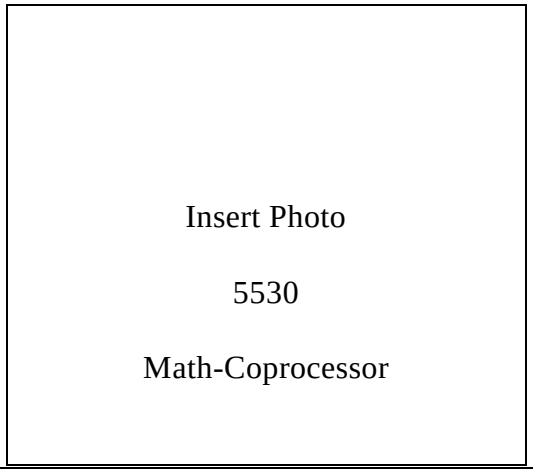
Remove the Fixed Disk Drive and the internal holder case.

STEP 6

Remove 387 Math-Coprocessor on the motherboard, if present, by inserting the IC removal tool on one side between the 387 FPU chip and the socket. Gently pry upward to lift just a little, then try other side until the chip is completely out of the socket. Remove Math-Co first so as not to interfere with CPU removal next. See Figure 10-1 below.

STEP 7

Remove the 386 CPU chip on the motherboard by using the IC removal tool. Carefully insert the IC removal tool on one side between the 386 CPU chip and the socket. Gently pry upward to lift just a little, then lift slightly from other side. Alternate between sides until the chip is completely out of the socket. (Save the 386 CPU chip so you can re-install it if you ever need to return temporarily to the old configuration). See Figure 10-2 below.



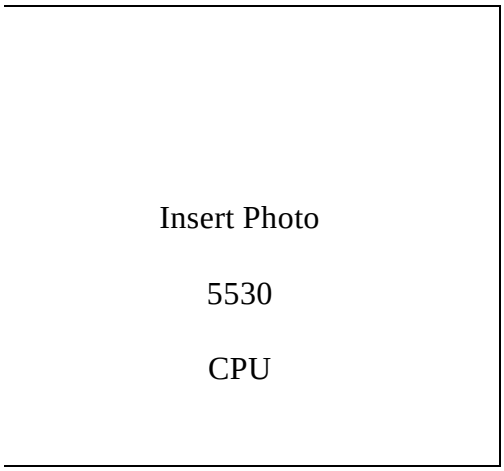


Figure 10-1 Removing the Math-Co **Figure 10-2 Removing CPU**

STEP 6

Install the Kingston 486/33PD3-P70LP, 486/33PS3-P70LP or 486/25PS3-P70LP board into the 386 CPU socket. Make sure pin 1 is positioned correctly and press the board firmly in place. See Figure 10-3 below for correct orientation of Pin 1.

Figure 10-3 Installing 486/Now!

STEP 7

Reinstall the internal holder case and Fixed Disk Drive.

STEP 8

Reconnect speaker/battery cable and floppy drive cable. Reinstall micro channel adapters and slide motherboard chassis into back of computer.

STEP 9

Reconnect all cables back to computer including built-in video cable.

STEP 10

End of Installation. You can go to **FIRST TIME POWER UP** section now.

First Time Power Up

STEP 1

Turn on power to start the computer.

STEP 2

The memory test will display in the upper left corner of the screen. After it finishes testing, two beeps will sound and an error code 162 will appear if: (1) you are installing a 486/33PD3 DX version (with built-in math coprocessor) where no previous math-co was installed; or (2) you are installing a 486/33PS3 or 486/25PS3 SX version (does not have math-co) and the 387 math-co has been removed. If a 162 error appears, proceed with Step 3, otherwise you are finished.

STEP 3

Insert your backup IBM® Reference Diskette in drive A and run either AUTOMATIC CONFIGURATION or, if you have other adapters installed, say "No" to AUTOMATIC CONFIGURATION and select "Set Configuration" from the Main Menu. Then go into "Change Configuration." At this point, all you need to do is press [F10] followed by an [ENTER] to save your configuration. Now use your exit key (ESC or F3) to back out completely and re-boot your system.

You have now successfully completed the installation of your new 486/Now! processor upgrade. To verify the performance of the 486/Now!, Kingston has included the Landmark System Speed Test version 2.0 on the Kingston diskette. To test the CPU speed, refer to *"Appendix A Landmark System Speed Test"*.

CAUTION:

After powering up, the 486/Now! becomes hot to the touch. If you need to remove it for any reason, wait until the chip has cooled.

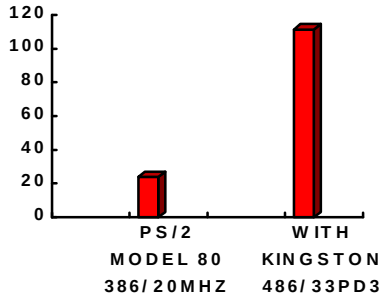
Appendices

Appendix A Landmark System Speed Test

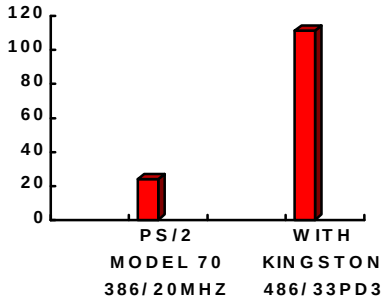
Included on the Kingston Utility Diskette is the Landmark System Speed Test Version 2.0. To test the CPU speed on your new 486/Now!, run SPEED200.EXE from the DOS prompt. This must be run from a DOS environment. Do not open a DOS window from OS/2 to run this program. If you do, it will give sporadic speed results.

LANDMARK SYSTEM SPEED (version **2.0**) should report the following:

IBM PS/2 MODEL 80 TYPE 8580-111 386/20MHZ.



IBM PS/2 MODEL 70 TYPE 8570-081 386/20MHZ.



Appendix B System Error Codes

102 SYSTEM BOARD ERROR ON IBM PS/2 MODEL 70-20MHZ.

This error may occur if the battery has been replaced or removed long enough to clear CMOS setup. With the 486 processor, some machines may experience a 102 error due to variations in motherboard timings. To correct, re-install the 80386DX Processor and run AUTOMATIC CONFIGURATION or SET CONFIGURATION from IBM Reference diskette, then re-install KINGSTON 486/33PD3 or 48625PS3, run AUTOMATIC CONFIGURATION, and this problem should not occur again.

162 MATH-COPROCESSOR INSTALLED/REMOVED.

To eliminate this error run AUTOMATIC CONFIGURATION or SET CONFIGURATION from IBM Reference diskette.

225 WRONG SPEED MEMORY ON MODEL 70 - 16MHz

Change switch settings. Refer to M70 16MHz Figure 3 for correct switch settings.

8603 MOUSE INTERRUPT

This error occurs on some mouse devices during Fast POST (Power-On-Self-Test). Change **SW1** Switch 4 to OFF.

SYSTEM KEEPS REBOOTING.

Check **SW1** switches for correct configuration setting. See *"Switch Settings"* on page 5.

VIDEO CHECK ERROR

In some machines using an 8514A Micro Channel Video Adapter you will experience a long beep during bootup. This is to indicate the CPU is not running at the expected rate. This video check does not in any way affect the performance or integrity of the machine.

Revision Level	Comment
C1	Replaced drawings with photos. Added P70LP model. Removed 25Mhz versions of both P70 and P70LP.
C2	Added 33Mhz SX version part numbers.
C3	Removed Appendix A CACHEROM utility.
C4	Corrected Figure numbering. Config Table was wrong.
D1	Added PS/2 5530 Japanese Model. Uses P70LP part.