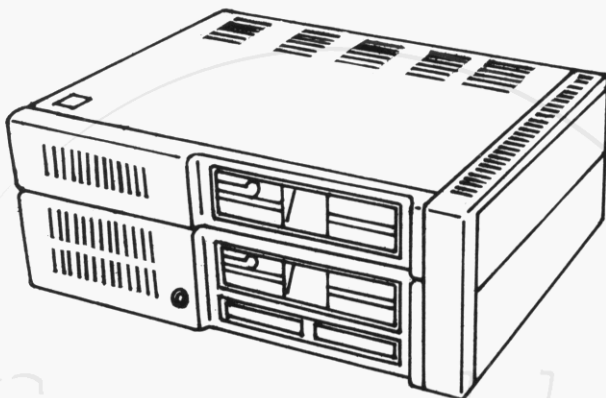


# Rapport Companions™ Drive Two Enhancement Package (Model 1200) Installation Instructions



If your IBM PCjr has not been set up at this time, do so before installing this product.

This carton contains the following:

- Top Assembly with Diskette Drive.
- Side Assembly.
- Transformer with power cords.
- Rapport Diskette Drive Signal Cable.
- Rapport Software Diskette.

If any item is missing or damaged, notify your place of purchase.

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*Scanned by*  
*MBB*

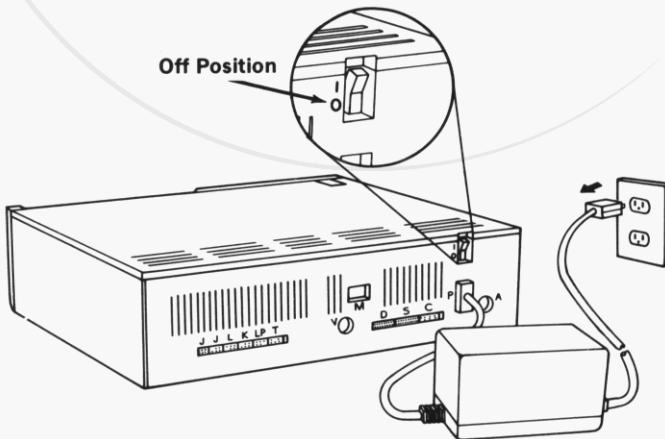
# Installation of the Rapport Drive Two Enhancement Package

The following is a step by step set of instructions for installation of the **Rapport Drive Two Enhancement Package**.

Note:

- If you purchased the **Rapport 128/384KB Memory Expansion Option**, you should complete the **128/384KB Memory Expansion Installation Instructions** before you start this installation.
- If you have additional peripheral equipment that attach to the side bus on your PCjr, you may have to alter address locations, please consult the address considerations chapter of these intructions.

- 1** Turn your IBM PCjr's power off.
- 2** Turn all external option power off (printer, TV, etc.).
- 3** Unplug the power cords for the IBM PCjr and all options from the wall outlets.



- 4** Turn your IBM PCjr so the rear is toward you.

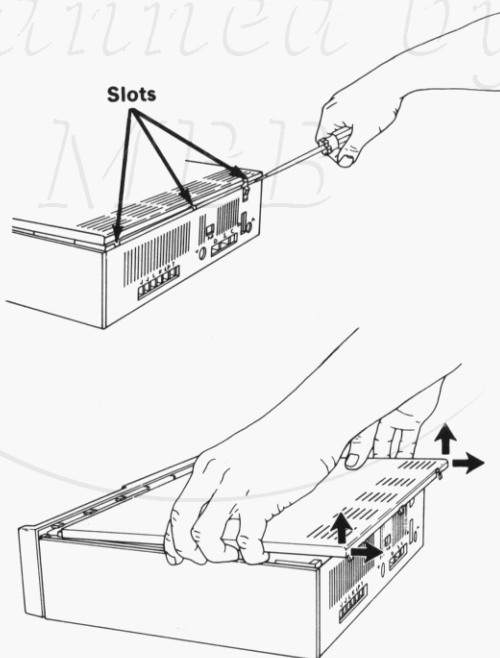
**Caution**

Serious shock hazards exist within the cover of the IBM PCjr. Do not open the cover unless you have unplugged your IBM PCjr's power cord from the wall outlet.

**Warning**

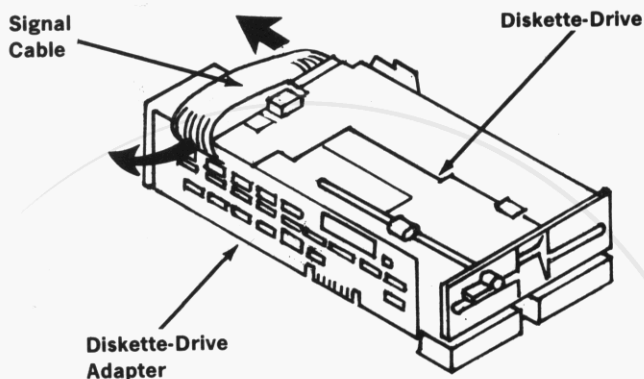
After turning your IBM PCjr off, allow 5 minutes for cooling to take place before removing the cover.

- 5** Insert a flat-blade screwdriver into the slots between the top cover and case. Gently twist to lift cover.
- 6** Remove the top cover by lifting it up and away from the front of the IBM PCjr.



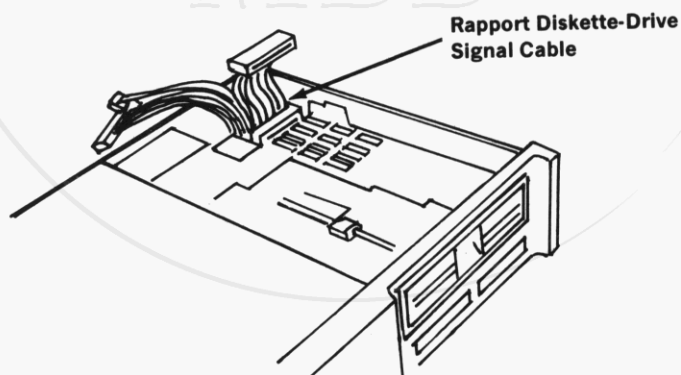
7

Disconnect and remove the IBM PCjr diskette drive signal cable from the diskette drive and the diskette drive adapter.

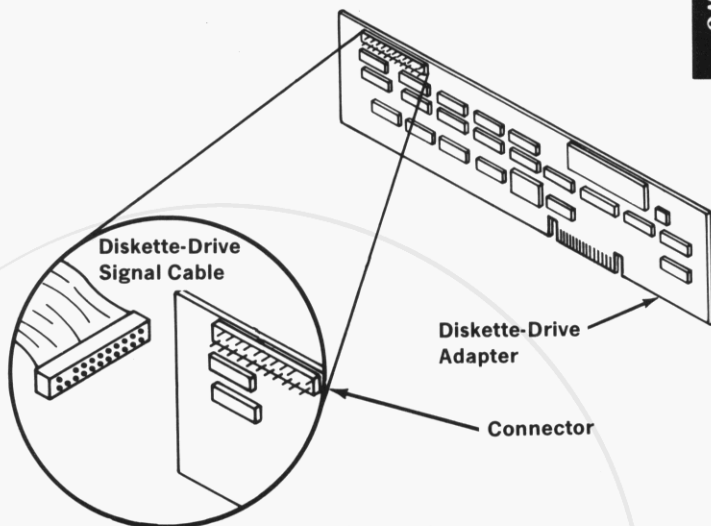


8

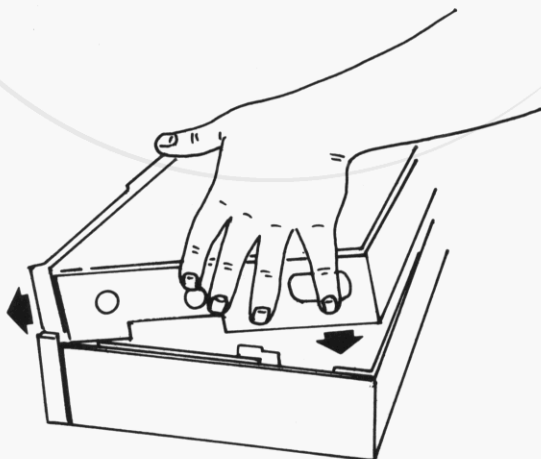
Connect the **Rapport** diskette drive signal cable to the diskette drive. Be sure to align the guide correctly.



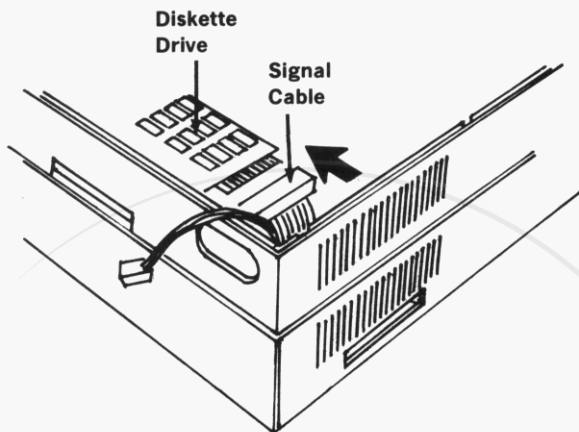
- 9** Plug the **Rapport** diskette drive signal cable into the connector on the diskette drive adapter. Be sure to align the pins and holes correctly.



- 10** Place the **Rapport Drive Two Enhancement Package Top Assembly** on the IBM PCjr. Pass the 2 remaining ends of the **Rapport** diskette drive signal cable through the hole behind the diskette drive of the Top Assembly. Slide the Top Assembly forward. Press down on the rear of the Top Assembly until it snaps into place.



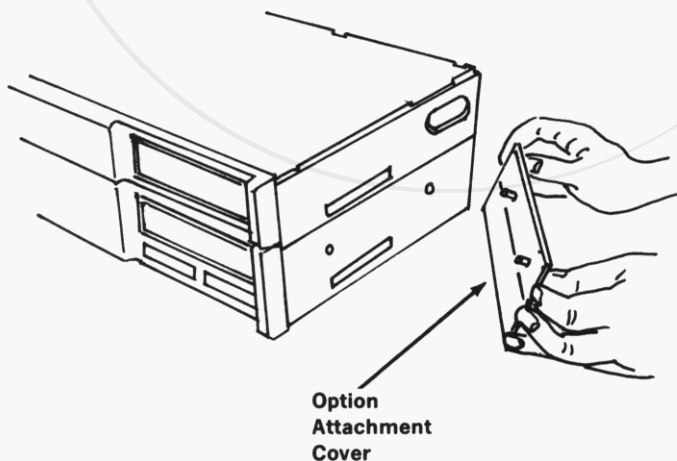
- 11** Plug the **Rapport** diskette drive signal cable to the diskette drive in the **Rapport** Top Assembly. Be sure to align the guide correctly.



- 12** Turn your IBM PCjr so the right side is toward you. Remove the option attachment cover.

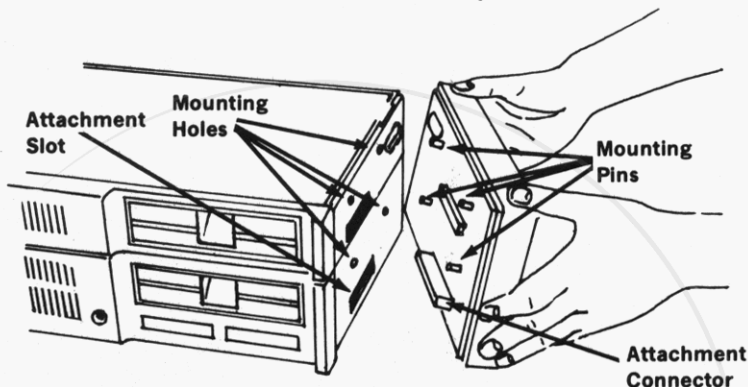
Note:

- It may be necessary to gently pry the cover off by inserting a screwdriver between the option attachment cover and the side of your IBM PCjr.





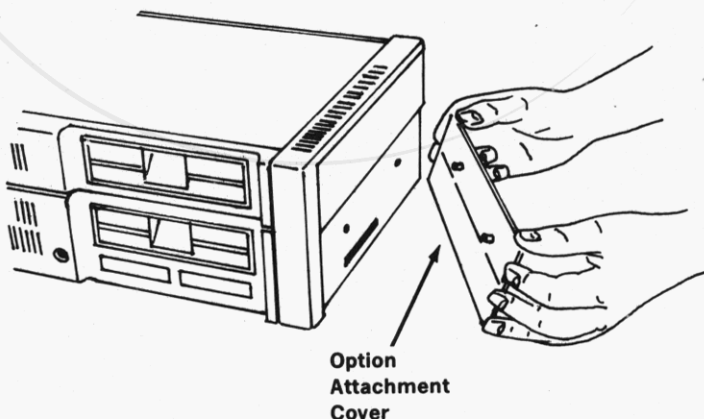
- 13** Position the **Rapport Side Assembly** so the mounting holes and attachment slot line up with the mounting pins and attachment connector. Press the **Rapport Side Assembly** into place. Be careful not to bend or break the pins on the **Rapport Side Assembly**. **Do Not Force The Side Assembly Into Place.**



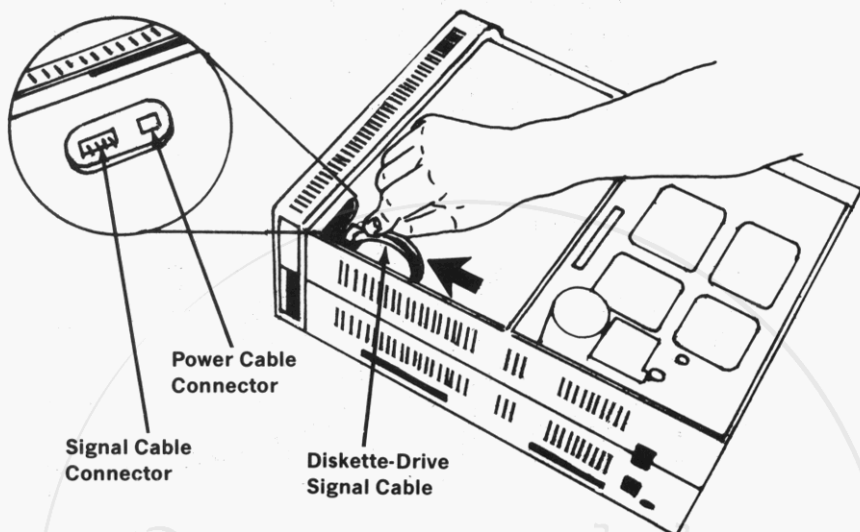
- 14** Install and tighten the four mounting screws until they are snug but do not overtighten screws.

**Note:** Use a medium-sized flat blade screwdriver.

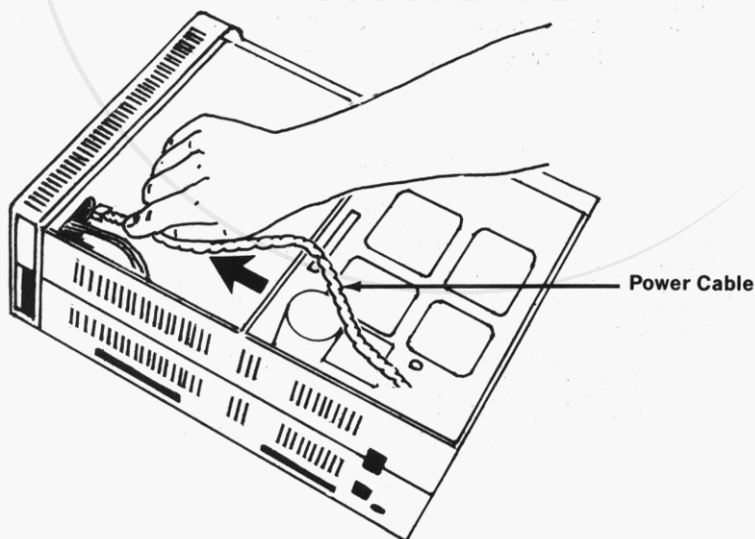
- 15** Replace the option attachment cover. Make sure it is pressed firmly into the mounting holes.



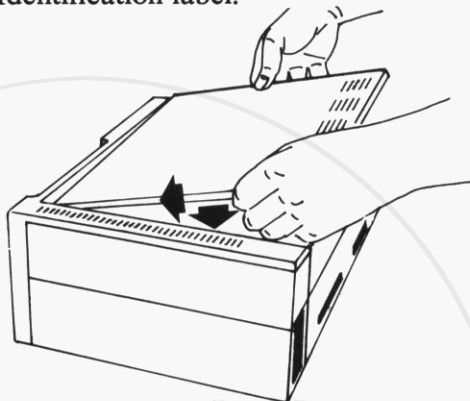
- 16** Plug the diskette drive signal cable into the connector on the **Rapport** Side Assembly. Be sure to align the pins and holes correctly.



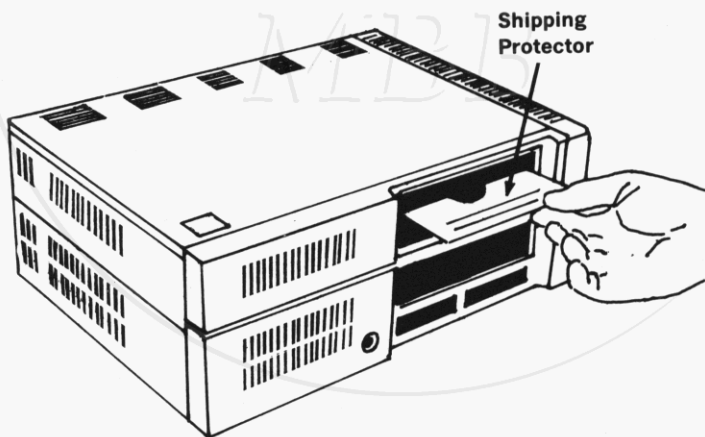
- 17** Plug the Side Assembly power cable into the connector on the **Rapport** Side Assembly. Be sure to align the pins and holes correctly. The connector should snap into place.



- 18** Replace the top cover by placing it on the **Rapport Top Assembly**. Slide it forward until the top cover and front of the **Rapport Top Assembly** fits together. Press down on the rear of the top cover until it snaps into place. Affix the **Rapport** Identification label next to the PCjr Identification label.



- 19** Remove the shipping protector from the diskette drive.



- 20** Plug the IBM PCjr and the **Rapport Drive Two Enhancement Package** power cords into wall outlets.

# Instructions

## Rapport Software Installation

### Making Backup Copy of Rapport Software Diskette

- 1** Flip the toggle switch on the back of the Side Assembly to PCjr Mode (outward).
- 2** Insert your Disk Operating System (DOS) working diskette into Drive A. (Bottom Drive)
- 3** Turn your PCjr on.
  - You will see something similar to this on your screen:  
  

```
Current date is Tue 1-01-1980
Enter new date:
```
- 4** Enter the current date.
- 5** Press the ENTER key.
  - You will see something similar to this on your screen:  
  

```
Current time is 0:02:03.16
Enter new time:
```
- 6** Enter the current time.
- 7** Press the ENTER key.
  - You will see this on your screen:  
  

```
A>
```
- 8** Type DISKCOPY A: B:
- 9** Press the ENTER key.

- You will see this on your screen:

```
Insert source diskette in drive A:
Insert target diskette in drive B:
Strike any key when ready
```

**10** Remove your DOS working diskette from drive A.

**11** Insert the **Rapport** Software Diskette in drive A.

**12** Insert a blank diskette in drive B. (Top Drive)

**13** Press any key.

- You will see this on your screen:

```
Copying 2 side(s)
Formatting while copying
```

- When the backup copy is complete, you will see this on your screen:

```
Copy complete
Copy another (Y/N)?
```

**14** Remove your **Rapport** Software Diskette from drive A.

**15** Insert your DOS working diskette in drive A.

**16** Type N.

- You will see this on your screen:

```
A>
```

**Take Rapport Master Software Diskette And Put It Away For Safe Keeping. Always Use The Backup Copy.**

## Setting The Clock/Calendar

**17** Type B:SETCLK

**18** Press the ENTER key.

- You will see something similar to this on your screen:

```
Current date is 9-30-1982  
Enter new date:
```

**19** Enter the current date.

**20** Press the ENTER key.

- You will see something similar to this on your screen:

```
Current time is 14:43:50  
Enter new time:
```

**21** Enter the current time:

**22** Press the ENTER key.

- You will see this on your screen:

```
A>
```

**23** Type COPY B:POW2CLK.EXE

**24** Press the ENTER key.

- You will see this on your screen:

```
A>
```

**Your Clock/Calendar Is Now Permanently Set And  
The Clock's Software Is Installed On Your  
DOS Working Diskette.**

## Making Your PCjr Video Compatible With PC Video

**25** Type COPY B:PCVIDEO.COM

**26** Press the ENTER key.

- You will see this on your screen:

```
A>
```

**This File Is Now Installed On Your DOS Working Diskette.**

### Creating Or Editing An Autoexecute File

Establishing this file eliminates the need to enter time and date each time you boot up your system.

**27** Type EDLIN AUTOEXEC.BAT

**28** Press the ENTER key.

- You will see this on your screen:

```
New file
*
or
End of file
*
```

**29** Type I

**30** Press the ENTER key.

- You will see this on your screen:

```
1:*
```

**31** Type PCVIDEO.

**32** Press the ENTER key.

- You will see this on your screen:

2: \*

**33** Type POW2CLK

**34** Press the ENTER key.

- You will see this on your screen:

3: \*

**35** Simultaneously depress the CTRL and C keys.

- You will see this on your screen:

\*

**36** Type E

**37** Press the ENTER key.

- You will see this on your screen:

A>

**The New Autoexecutive File Is Now Installed  
On Your DOS Working Diskette.**

**38** Remove your **Rapport** Software backup diskette  
from drive B.

**39** Simultaneously depress the CTRL, ALT,  
and DEL keys.

You will see the following  
on your screen:

A> PCVIDEO  
A> POW2CLK  
A>  
A>

**All Rapport Software Is Now Permanently Installed  
On Your DOS Working Diskette.**



## PC/PCjr Mode Switch

The toggle switch, located on the back of the **Rapport** Side Assembly, above the printer connector, allows you to change the mode of your computer from PCjr to PC. The switch is operative only when the system is started (either power ON or System Reset). Changing the position of the switch after DOS has loaded has no effect on operation.

When the switch is pointed away from the computer (outward), the computer is in the PCjr mode. In this mode, the computer behaves exactly as shipped from IBM, with the exception that you have up to 2 disk drives instead of 1. Use this mode when running PCjr programs.

When the switch is pointed toward the computer (inward), the computer is in the PC mode. In this mode the computer behaves like a PC. Also, if there is more than 64K of system memory, the display is initialized to 80 column. Use this mode when running PC programs.

# Clock/Calendar

## Introduction

**The Rapport Drive Two Enhancement Package** contains a clock/calendar with battery backup which maintains the date and time while the power is on or off. This section contains information on use of **Rapport** software for the proper operation of the **Rapport Clock/Calendar**. The diskette shipped with the **Rapport Drive Two Enhancement Package** contains 2 files used to operate the **Rapport Clock/Calendar POW2CLK.EXE** and **SETCLK.EXE**.

## POW2CLK

The Disk Operating System (DOS) for your PCjr uses the DOS system clock for various system operations. Whenever you power on your PCjr, the DOS system clock must be set. To set the DOS system clock from the **Rapport Clock/Calendar**, you must execute the program **POW2CLK**. This is easily accomplished by adding the **POW2CLK** command to your **AUTOEXEC.BAT** batch file (see **IBM DISK OPERATING SYSTEM MANUAL**).

## SETCLK

This program is used to set the date and time of your **Rapport Hardware Clock**. When SETCLK is loaded and ready, you will see something similar to this on your screen:

```
Current date is 9-30-1982
Enter new date:
```

Enter a new date in the form MM-DD-YY, where:

**MM** is a one-or two-digit number from 1 to 12  
(representing month)

**DD** is a one-or two-digit number from 1 to 31  
(representing day)

**YY** is a two-digit number from 80 to 99 (the  
19 is assumed) or a four-digit number  
from 1980 to 2099 (representing year)

If you enter an invalid date or delimiter, on your screen  
you will see:

```
Invalid date
Enter new date:
```

**Note:** To leave the date as is, press the ENTER key.

After you have entered a valid date, you will see something similar to this on your screen:

```
Current time is 14:43:50
Enter new time:
```

Enter a new time in the form HH:MM, where:

- HH is a one-or two-digit number 0 to 23  
(representing hours)
- MM is a one-or two-digit number from 0 to 59  
(representing minutes)

If you enter an invalid time or delimiter, on your screen you will see:

```
Invalid time  
Enter new time:
```

Note:

- To leave the time as is, press the ENTER key.
- The **Rapport** Hardware Clock may only be set to the nearest minute; therefore, SETCLK always sets the seconds to zero.

After you have entered a valid time, SETCLK will set the DOS system clock and the **Rapport** Hardware Clock and then return to DOS.

# Parallel Printer Port

## Introduction

The **Rapport Drive Two Enhancement Package** contains a parallel printer port. This section contains information on the use of **Rapport** software for the proper operation of the **Rapport Parallel Printer Port**.

## Printer Drivers

The diskette shipped with the **Rapport Drive Two Enhancement Package** contains 4 files used to drive the **Rapport Parallel Printer Port**. These **Rapport** printer device driver files are named **RAPPRN.COM**, **RAPLPT1.COM**, **RAPLPT2.COM**, and **RAPLPT3.COM**. Each file is the driver for the DOS printer device it names (PRN, LPT1, LPT2, and LPT3). As shipped, the **Rapport Parallel Printer Port** needs no software to operate as printer device PRN or LPT1. The printer may also be configured as printer device LPT2 or LPT3 by adding **RAPLPT2** or **RAPLPT3** to the **CONFIG.SYS** configuration file.

If the base I/O address of the **Rapport Drive Two Enhancement Package** is changed (see **Address Considerations For The Rapport Drive Two Enhancement Package**), for any reason, the **Rapport** printer device driver file must be contained in the configuration file, **CONFIG.SYS**, for the printer to be recognized as the DOS printer device.

## Installing Device Drivers--CONFIG.SYS

DOS Versions 2.00 and above allow new device drivers to be installed dynamically at boot time by processing a file named CONFIG.SYS. To install a new device, you must add a **DEVICE=** command to the CONFIG.SYS file. See the Technical Reference section of the IBM DISK OPERATING SYSTEM MANUAL for further information.

### Example

To configure the **Rapport** parallel Printer Port as DOS printer devices LPT2 and LPT3 use the following commands in your existing CONFIG.SYS file or create a new CONFIG.SYS file by entering the following commands:

```
EDLIN CONFIG.SYS
    (press the ENTER key)
NEW FILE or END OF FILE
*1i (press the ENTER key)
1:* DEVICE=RAPLPT2.COM
    (press the ENTER key)
2:* DEVICE=RAPLPT3.COM
    (press the ENTER key)
3:* (simultaneously depress CTRL and C keys)
*E
A>
```

Note:

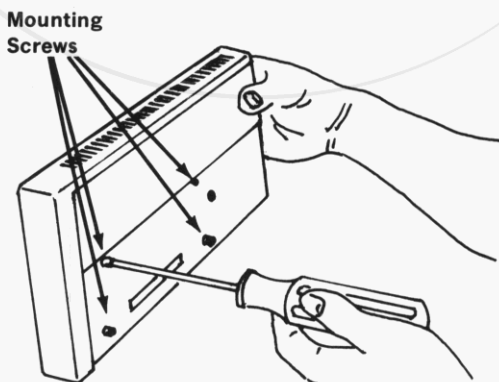
All device drivers used in the CONFIG.SYS file must reside on the diskette with CONFIG.SYS.

# Address Considerations For The Rapport Drive Two Enhancement Package

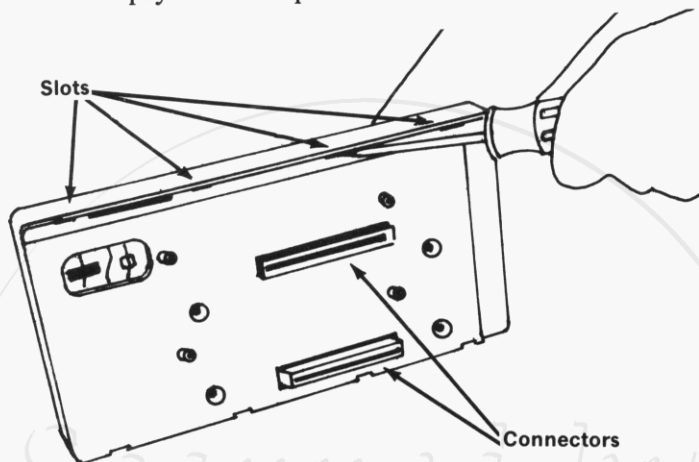
As shipped, the **Rapport Drive Two Enhancement Package** uses 4K bytes of memory address space at hexadecimal address C8000 (C8000 to C8FFF), and 4 bytes of I/O address space at hexadecimal address 378 (378 to 37B). If you have other addon devices, check the memory and I/O addresses of the other devices for contentions. If no contentions exist, there is no need to change the addressing of the **Rapport Drive Two Enhancement Package**; however, if another addon device uses addresses that the **Rapport Drive Two Enhancement Package** also uses, you must change the address at which the **Rapport Drive Two Enhancement Package** responds, or change the address at which the other addon responds.

The following is a step by step set of instructions for changing the base address of the **Rapport Drive Two Enhancement Package**:

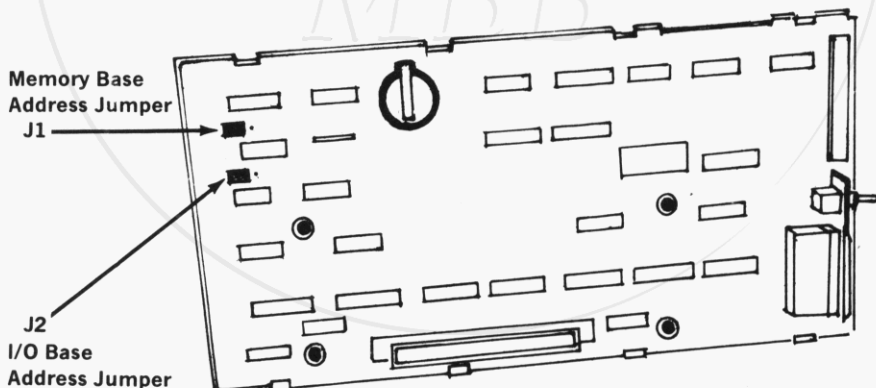
- 1 Turn your **Rapport Drive Two Enhancement Package** Side Assembly so that the 2 plastic connectors are away from you. Remove the 4 mounting screws from the plastic case.



- 2** Turn your **Rapport Drive Two Enhancement Package Side Assembly** so that the 2 plastic connectors are toward you. Insert a flat-blade screwdriver into the slots between the front and back covers and pry the two apart.



- 3** Remove the printed circuit board from the plastic case.

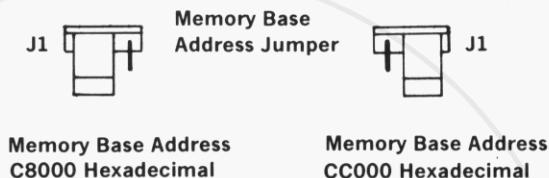


- 4** Change the position of jumpers, J1 or J2, as follows:



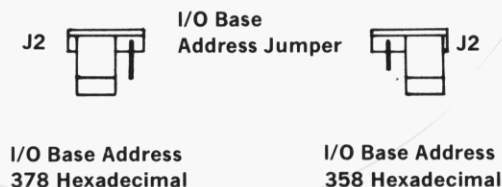
## Memory Address

As shipped, the memory base address of the **Rapport Drive Two Enhancement Package** is at hexadecimal address C8000. You may change the base address to hexadecimal address CC000 by changing the position of jumper, J1.



## I/O Address

As shipped, the base I/O address of the **Rapport Drive Two Enhancement Package** is at hexadecimal address 378. You may change the base address to 1 of 2 different hexadecimal addresses, 378 or 358, by changing the position of jumper, J2.



- 5 Replace the printed circuit board in it's plastic case.
- 6 Press the front and back covers together.
- 7 Reinstall the 4 mounting screws.

# Error Messages

## HARDWARE CLOCK ERROR

Explanation: POW2CLK. An invalid date or time was read from the **Rapport** Clock/Calendar.

Action: Reset the **Rapport** Clock/Calendar by executing SETCLK and then turn the power off. Restore power to the system. If the error occurs again, replace the clock-calendar battery. If problem persists, contact place of purchase for service information.

### Invalid date

Explanation: SETCLK. An invalid date or delimiter was entered. The only valid delimiter in a date entry is a hyphen (-).

Action: Re-enter valid date.

### Invalid time

Explanation: SETCLK. An invalid time or delimiter was entered. The only valid delimiter in a time entry is a colon (:).

Action: Re-enter valid time.

## RAPPORT CLOCK NOT PROPERLY INSTALLED

Explanation: POW2CLK or SETCLK. The **Rapport** Clock/Calendar was not found.

Action: Check for the following, then retry the command:

- Check to make sure that the **Rapport Drive Two Enhancement Package** is installed properly (see INSTALLATION INSTRUCTIONS).
- Check to make sure that no other devices are at the same I/O address as the **Rapport Drive Two Enhancement Package** (see Address Considerations for the Rapport Drive Two Enhancement Package).

If the problem persists, contact place of purchase for service information.

## RAPPORT PRINTER NOT PROPERLY INSTALLED

Explanation: **Rapport** Parallel Printer Port Drivers. The **Rapport** Parallel Printer Port was not found.

Action: Check for the following, then retry driver installation:

- Check to make sure that the **Rapport Drive Two Enhancement Package** is installed properly (see INSTALLATION INSTRUCTIONS).
- Check to make sure that no other devices are at the same I/O address as the **Rapport Drive Two Enhancement Package** (see Address Considerations for the Rapport Drive Two Enhancement Package).

If the problem persists, contact place of purchase for service information.

# **Rapport Corporation**

## **Limited Warranty**

Rapport Corporation warrants their products to be in working order for a period of one year from the date of purchase. Should a Rapport product fail to be in working order during this one year period, Rapport will repair or replace that product, at its option, at no charge except as set forth below. Replacement products or repair parts will be furnished on a replacement basis and will be either new or reconditioned. All replaced products or parts does not include service to repair damage to the product resulting from accident, misuse, disaster or non-Rapport modification to the product.

Limited Warranty service may be obtained by delivering the product, and proof of purchase during the one year period, to any Authorized Rapport Dealer or by mailing the product and proof of purchase to: Rapport Corporation, 80 South Redwood Road, North Salt Lake City Utah 84054. If you mail the product, you insure the product or assume risk of loss or damage due to shipping. You also assume the cost of shipping to Rapport Corporation.

All express and implied warranties for this product including the warranties of merchantability and fitness for a particular purpose, are limited in duration to a period of one year from the date of purchase, and no warranties, whether express or implied, will apply after this period. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

If this product is not in good working order as warranted above, your sole remedy shall be repair or replacement as provided above. In no event will Rapport be liable to you for any damages, including lost profits, lost savings or other incidental or consequential damages arising out of the use of or inability to use such product, even if Rapport or an authorized Rapport dealer has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the exclusion or limitation of incidental or consequential damages for consumer products, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.