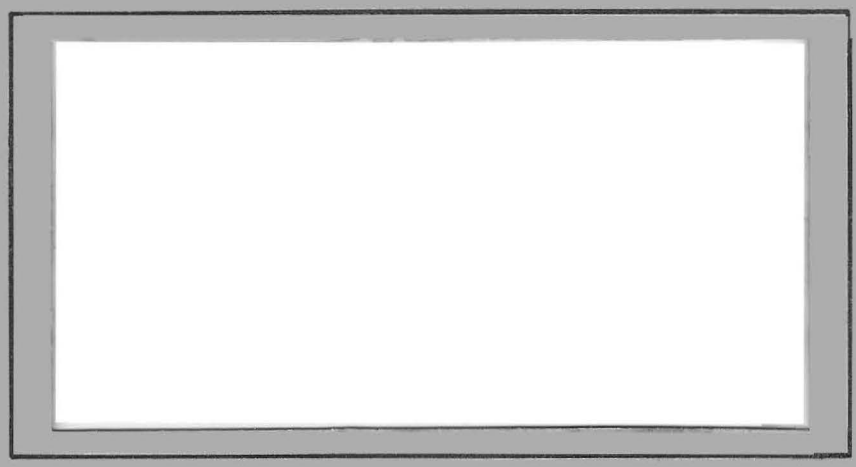
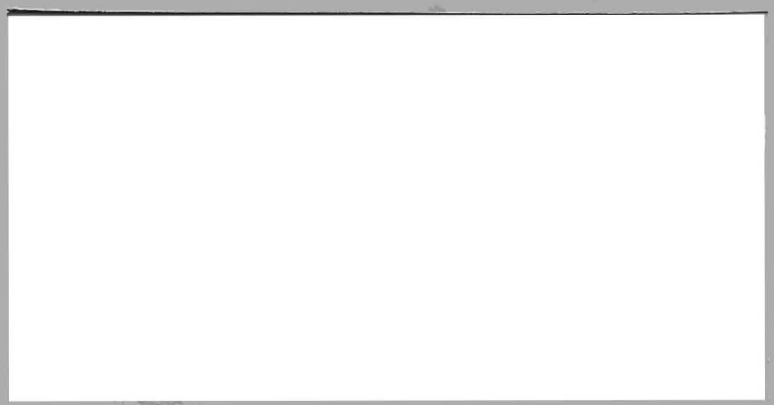


PERCOM DATA
CORPORATION



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PERCOM DATA
AT-88 DISK DRIVES
FOR THE
ATARI COMPUTER

Manual Number
050-1290-001

Percom Data Company Inc.
11220 Pagemill Road
Dallas, Texas 75243

STATEMENT OF LIMITED WARRANTY

For a period of 90 days from the date of delivery, PERCOM DATA CO., INC. warrants to the original purchaser that the computing equipment described herein shall be free from defects in material and workmanship under normal use and service. During this period, if a defect should occur, the equipment must be returned to the PERCOM DATA CO. Service Facility at the address on page i, the full title page. The purchaser must prepay all shipping and insurance charges, and supply proof of purchase from PERCOM DATA DATA CO. or an authorized PERCOM DATA dealer or distributor. Purchaser°s sole and exclusive remedy in the event of defect is expressly limited to the correction of the defect by adjustment, repair or replacement at PERCOM DATA°s election and sole expense, except there shall be no obligation to replace or repair items which by their nature are expendable. This warranty is voided if the unit has been subjected to improper or abnormal use, or if the unit is altered or modified. No representation or other affirmation of fact, including, but not limited to, statements regarding capacity, suitability for use, or performance of the equipment, shall be deemed to be a warranty or representation by PERCOM DATA CO., INC., for any purpose, nor give rise to any liability or obligation of PERCOM DATA CO., INC. whatsoever. EXCEPT AS SPECIFICALLY PROVIDED IN THIS AGREEMENT, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND IN NO EVENT SHALL PERCOM DATA CO., INC., BE LIABLE FOR LOSS OF PROFITS OR BENEFITS, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER SIMILAR DAMAGES ARISING OUT OF ANY BREACH OF THIS WARRANTY OR OTHERWISE.

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OS/A+ is a trademark of Optimized Systems Software, Inc.
Atari, Atari 800, Atari 400, Atari 810, and Atari DOS 2.0S are trademarks

RADIO FREQUENCY INTERFERENCE PROTECTION

This equipment generates and uses radio frequency energy. If not installed and used properly, that is, in strict accordance with Percom Data installation and operation instructions, it may cause interference to radio and television reception. There is no guarantee, however, that interference will not occur in a particular installation.

If this equipment does cause interference to radio or television reception -- which can be determined by turning the equipment off and on -- we encourage you to try to correct the interference by one or more of the following measures:

* reorient the receiving antenna
* relocate the computer with respect to the receiver
* move the computer away from the receiver
* plug the computer into a different outlet so that the computer and receiver are on different branch circuits

If necessary, consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the United States Government Printing Office, Washington, DC 20402, Stock No. 004-000-0035-4.

CHAPTER ONE — INTRODUCTION

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1-2 Specifications
1-2 Accessories
1-3 System Requirements
1-3 Unpacking
1-3 A Final Word

CHAPTER TWO — CONFIGURATIONS

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APPENDIX

A-1 Nothing Happened

INTRODUCTION

CHAPTER ONE

1-1 AT-88 Disk Drives

1-2 Specifications

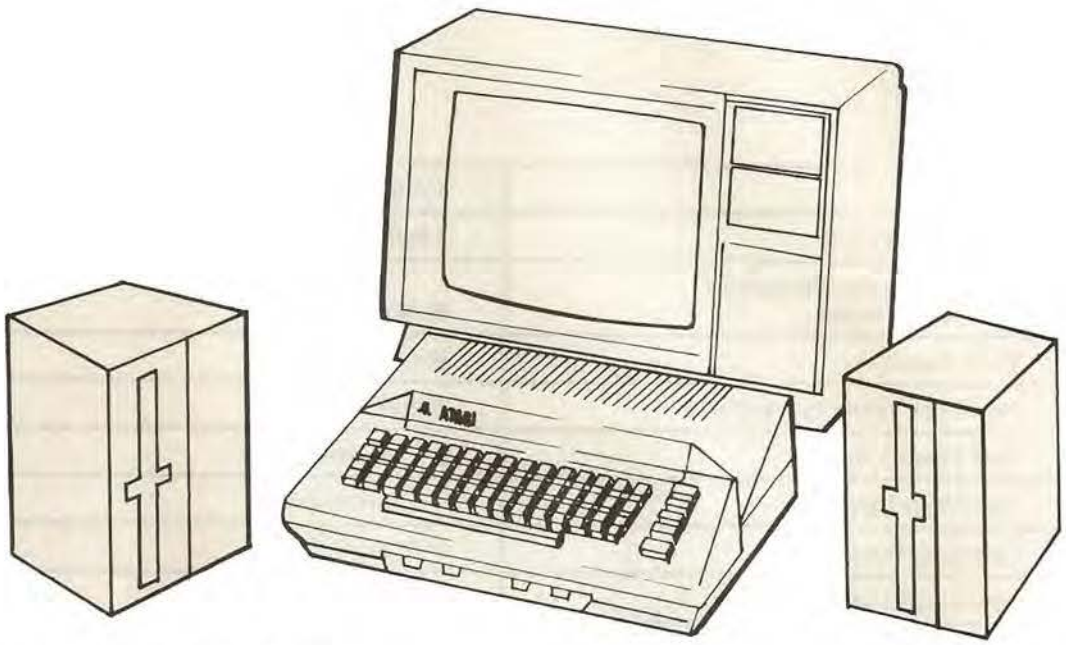
1-2 Accessories

1-3 System Requirements

1-3 Unpacking

1-3 A Final Word

Chapter One introduces you to Percom Data Disk Drives.



AT-88 Disk Drives

Congratulations on your purchase of a Percom Data mini-disk drive for your Atari computer.

In addition to being the highest quality floppy disk drives available, your Percom Data diskette drives include added features not found in the diskette drives of other manufacturers:

- You can connect your Percom Data Controller Drive directly to your computer.
- Your Percom Data Controller Drive includes a versatile four-drive controller; this means you can connect as many as three additional low-cost Percom Data Add-On Drives.
- Your Percom Data Drives operate in Single-Density and can use one of two operating systems: the included OS/A+ 2.00 or the Atari DOS 2.0S.

Specifications

Media	5¼-inch diskette
Typical Media Life	3 million passes / track
Storage Capacity (Formatted): Single Density	88,000 bytes / side
Track Density	48 tracks / inch
Head Seek Time (track to track)	20 milliseconds
Data Transfer Rate	19,200 bits / second
Start / Stop Time	1 second (max)
Operating Temperature	10°C to 40°C
Operating Relative Humidity	20% to 80% (non-condensing)
Head Life (normal use)	20,000 hours
Input Power — Controller Drive	
Domestic Models	105-125 V, 1.0 A (max), 50-60 Hz
Foreign Models	210-250 V, 0.5 A (max), 50-60 Hz
Input Power — Add-On Drive	
Domestic Models	105-125 V, 0.5 A (max), 50-60 Hz
Foreign Models	210-250 V, 0.25 A (max), 50-60 Hz

Accessories

Percom Data manufactures a Data/Clock separator circuit; the SEPARATOR plugs into an Atari 810 Disk Drive and virtually eliminates problems associated with reading diskettes on the 810 drive.

A three-drive interconnecting cable for AT-88 Add-On Drives is also available from Percom Data.

For more information about Percom Data products for your Atari computer visit or telephone 1-800-527-1222 (outside of Texas) or (214) 340-7081 (within Texas) for an authorized Percom Data retailer.

System Requirements

To use Percom Data AT-88 drives with your Atari computer, you will need as a minimum the following:

- An Atari 800 or an Atari 400 computer with 34 Kbytes of RAM and compatible video display system.
- Operating system OS/A+ 2.00 or Atari DOS 2.0S and the appropriate manual.
- An optional interconnecting cable if more than one add-on drive is used.
- Two blank diskettes.

Unpacking

As you unpack your Percom Data AT-88 Controller Drive, verify that the following items are included:

- An AT-88 Controller Drive (one drive in cabinet), an AT-88 Controller Drive with one AT-88 Add-On Drive (two drives in cabinet), or an AT-88 Add-On Drive (one drive in cabinet).
- A Data Cable for connecting the Controller Drive to your computer or 810 Disk Drive, or a flat cable to connect your Add-On Drive to the Controller Drive. A cross section of a data cable resembles a circular shape. A flat cable consists of insulated conductors that lie side by side; therefore, the cable looks flat.
- A Percom Data AT-88 Disk Drive owner's manual (this Users Manual).
- Operating system OS/A+ 2.00 and an OS/A+ Manual.

Your Percom Data AT-88 add-on drives (if purchased) are shipped assembled, and include the drive mechanism and power supply in an enclosure.

A Final Word

Please be sure your computer is operating properly before attempting to expand it with a disk drive system or other peripheral devices. Adding new devices to a system with a problem may further complicate the problem and make troubleshooting more difficult.

Every effort has been made to ensure that this manual accurately documents your Percom Data AT-88 disk drives. We will, however, be continuously improving and updating both software and hardware, and therefore Percom Data Company, Inc., cannot absolutely guarantee the accuracy of this publication

CONFIGURATIONS

CHAPTER TWO

2-1 System A

2-2 System B

2-3 System C

2-4 System D

2-5 System E

2-6 System F

2-7 System G

2-8 System H

2-9 System I

2-10 System J

2-11 System K

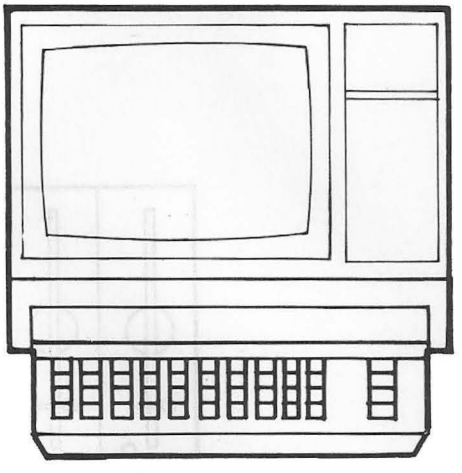
2-12 System L

Chapter Two illustrates twelve possible drive system configurations: System A through System L.

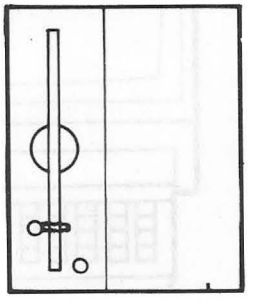
Decide which system you have and then go to the appropriate page in Chapter Three.

System A

If you have a computer and one Percom Data Controller Drive, you have System A (one drive).



Computer

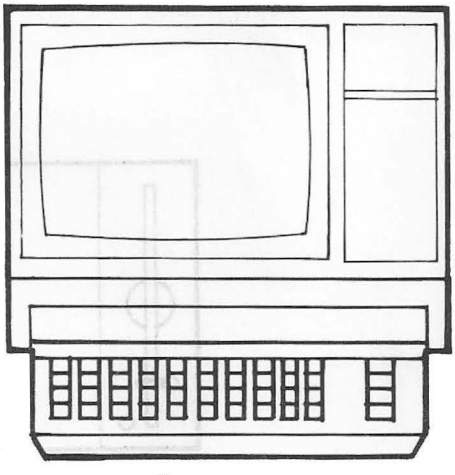


Percom Data
Controller Drive

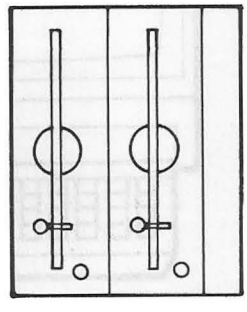
Please go to page 3-1.

System B

If you have a computer and one Percom Data Dual Drive Unit that contains a Controller Drive and an Add-On Drive, you have System B (two drives).



Computer

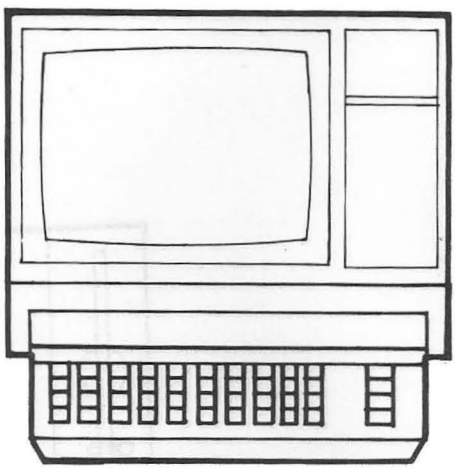


Percom Data
Dual Drive

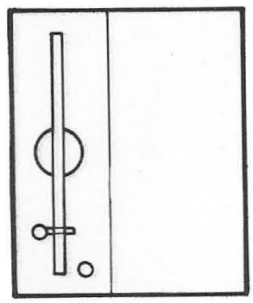
Please go to page 3-3.

System C

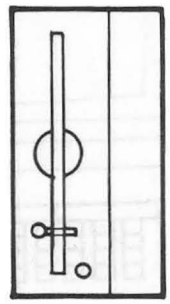
If you have a computer, one Percom Data Controller Drive, and one Percom Data Add-On Drive, you have System C (two drives).



Computer



Percom Data
Controller Drive

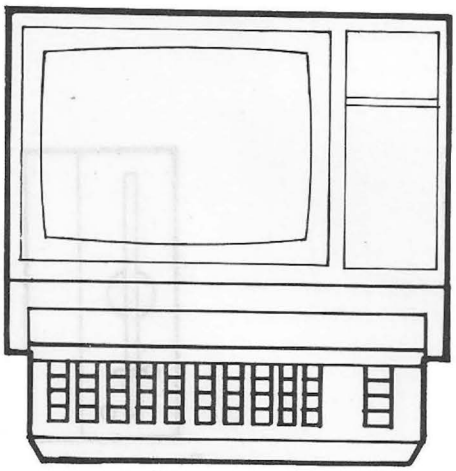


Percom Data
Add-On Drive

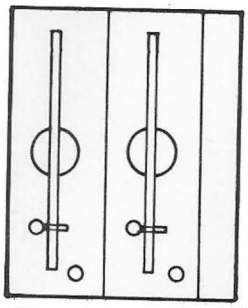
Please go to page 3-3.

System D

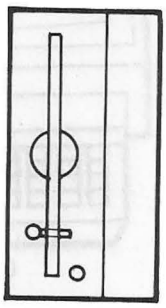
If you have a computer, one Percom Data Dual Drive Unit that contains a Controller Drive and an Add-On Drive, and one Percom Data Add-On Drive, you have System D (three drives).



Computer



Percom Data
Dual Drive

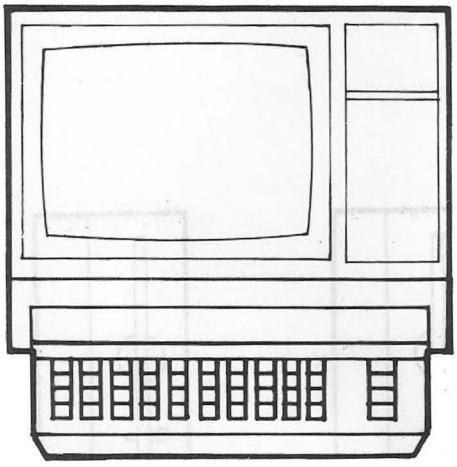


Percom Data
Add-On Drive

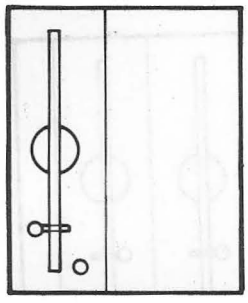
Please go to page 3-6.

System E

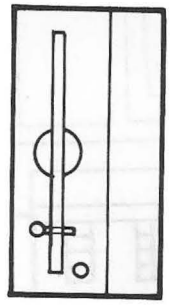
If you have a computer, one Percom Data Controller Drive, and two Percom Data Add-On Drives, you have System E (three drives).

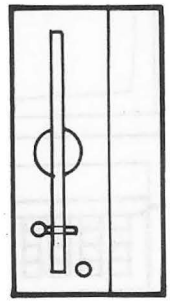


Computer



Percom Data
Controller Drive



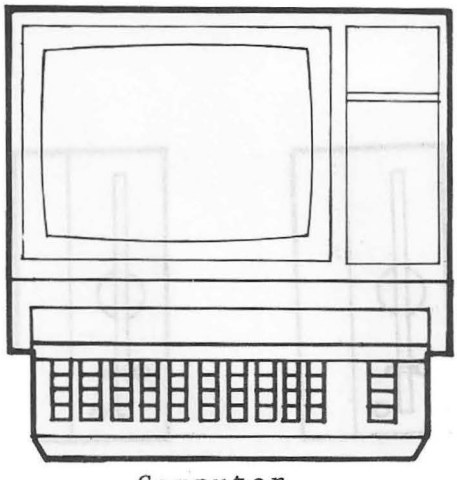


Percom Data
Add-On Drives

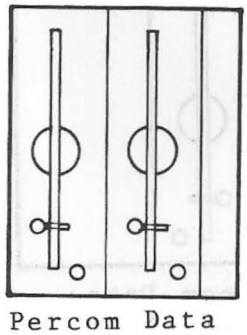
Please go to page 3-6.

System F

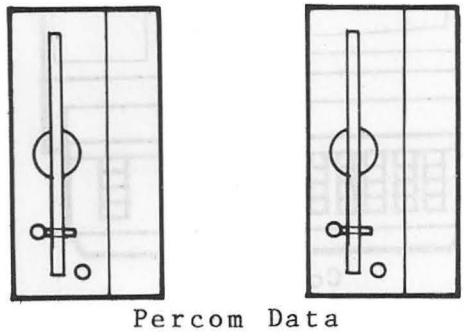
If you have a computer, one Percom Data Dual Drive Unit that contains a Controller Drive and an Add-On Drive, and two Percom Data Add-On Drives, you have System F (four drives).



Computer



Percom Data
Dual Drive

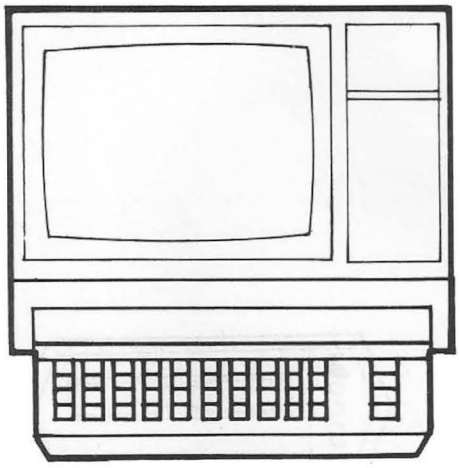


Percom Data
Add-On Drives

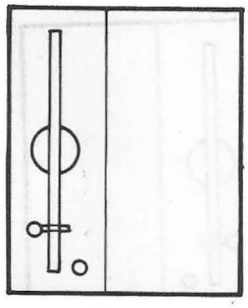
Please go to page 3-10.

System G

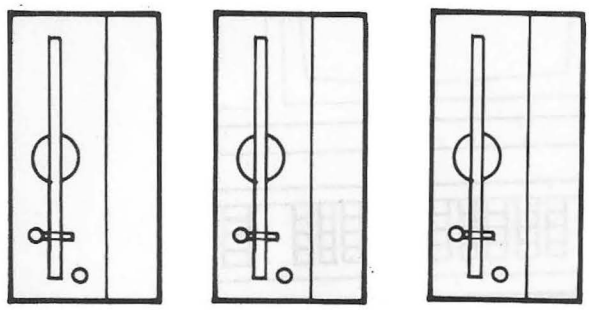
If you have a computer, one Percom Data Controller Drive, and three Percom Data Add-On Drives, you have System G (four drives).



Computer



Percom Data
Controller Drive

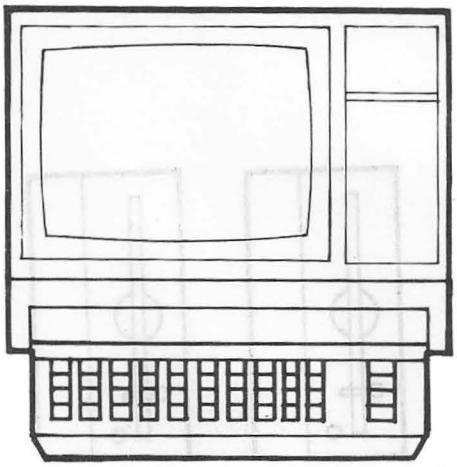


Percom Data
Add-On Drives

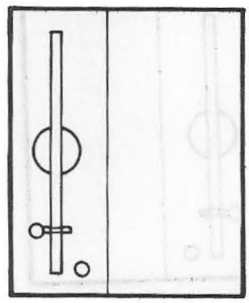
Please go to page 3-10.

System H

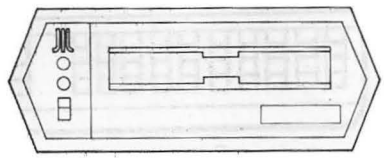
If you have a computer, one Percom Data Controller Drive, and one Atari 810 Drive, you have System H (two drives).



Computer



Percom Data
Controller Drive

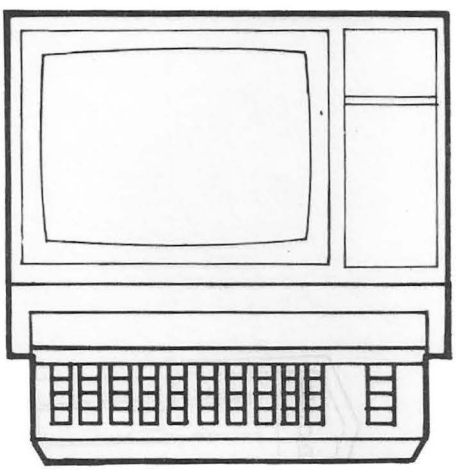


Atari
810 Drive

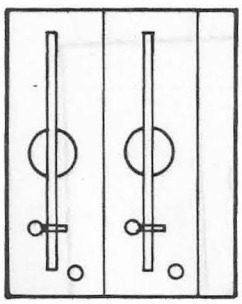
Please go to page 3-15.

System I

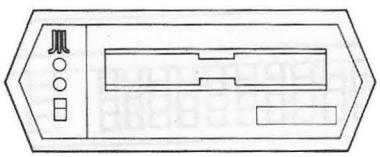
If you have a computer, one Percom Data Dual Drive Unit that contains a Controller Drive and an Add-On Drive, and one Atari 810 Drive, you have System I (three drives).



Computer



Percom Data
Dual Drive

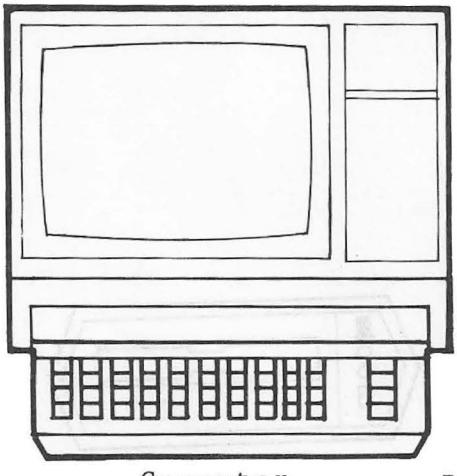


Atari
810 Drive

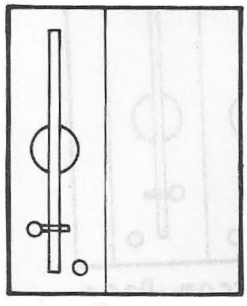
Please go to page 3-18.

System J

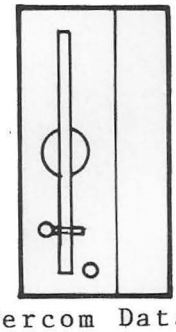
If you have a computer, One Percom Data Controller Drive, one Percom Data Add-On Drive, and one Atari 810 Drive, you have System J (three drives).



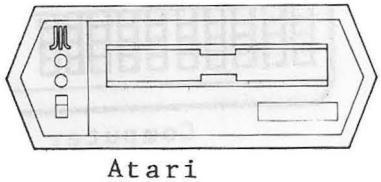
Computer



Percom Data
Controller Drive



Percom Data
Add-On Drive

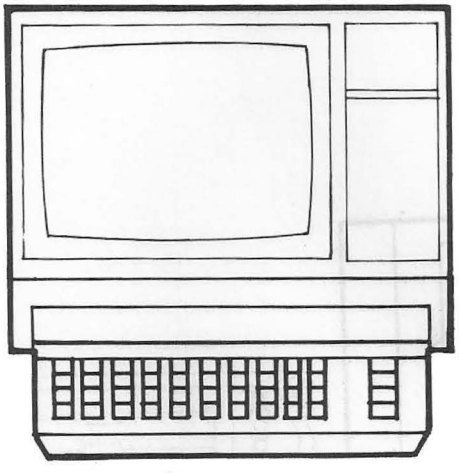


Atari
810 Drive

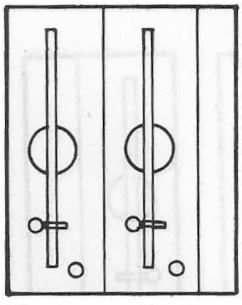
Please go to page 3-18.

System K

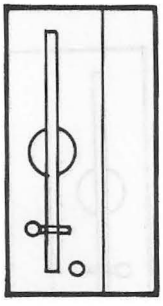
If you have a computer, one Percom Data Dual Drive Unit that contains a Controller Drive and an Add-On Drive, one Percom Data Add-On Drive, and one Atari 810 Drive, you have system K (four drives).



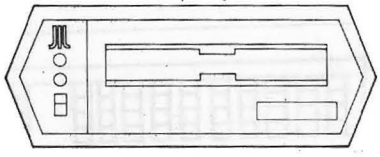
Computer



Percom Data
Dual Drive



Percom Data
Add-On Drive

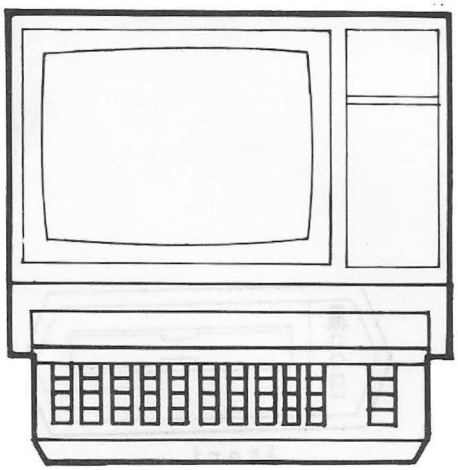


Atari
810 Drive

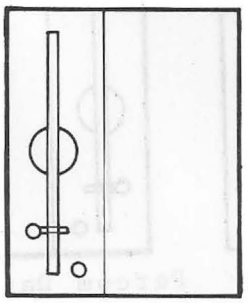
Please go to page 3-22.

System L

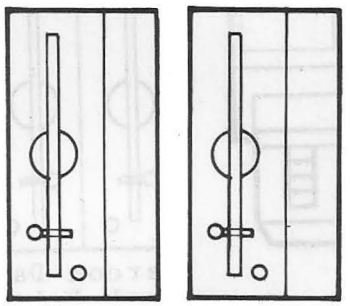
If you have a computer, one Percom Data Controller Drive, two Percom Data Add-On Drives, and one Atari 810 Drive, you have System L (four drives).



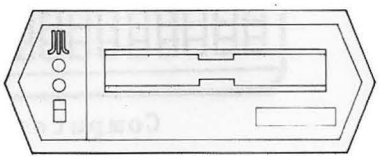
Computer



Percom Data
Controller Drive



Percom Data
Add-On Drives



Atari
810 Drive

Please go to page 3-22.

SETTING UP

CHAPTER THREE

3-1 Build System A

3-3 Build System B or System C

3-6 Build System D or System E

3-10 Build System F or System G

3-15 Build System H

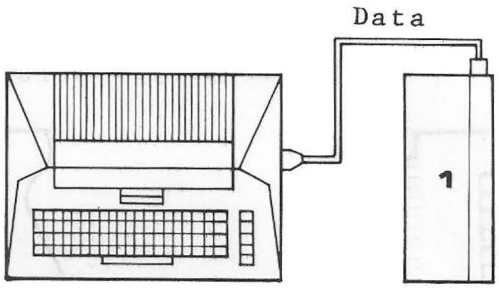
3-18 Build System I or System J

3-22 Build System K or System L

Chapter Three tells you how to set up your drive system.

Build System A

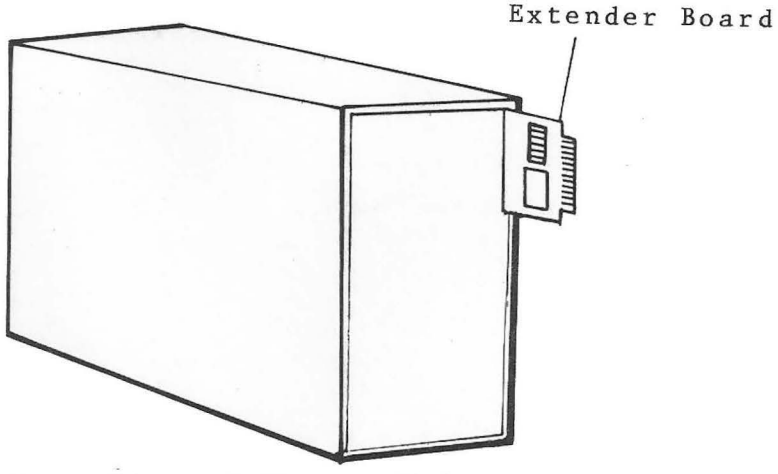
1. You have System A. (Refer to Chapter 2.)



System A

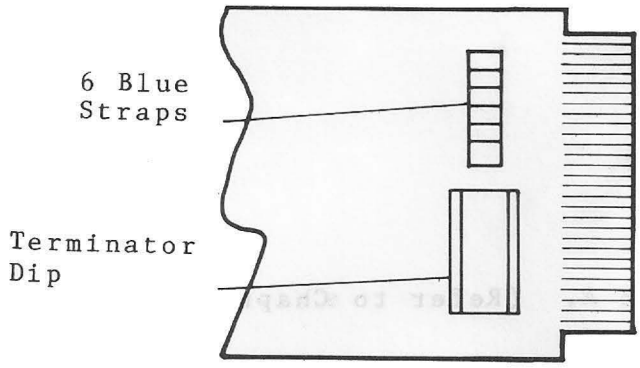
2. Connect the data cable between your computer and your controller drive.

3. Look at the rear of a Percom drive unit. Find the extender board; it extends about 1 inch by 2 inches beyond the unit's case.

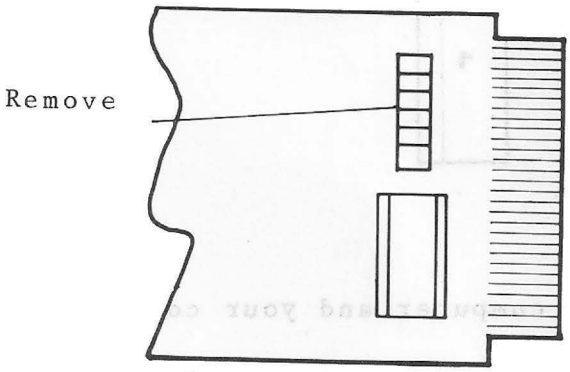


Rear View of Percom Drive

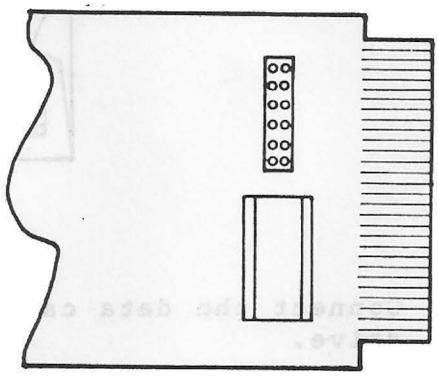
A closer look shows that every extender board has 6 blue jumper straps and a terminator dip.



4. From Drive 1, remove all of the blue jumper straps (with needle-nose pliers).



System A,
Drive 1, Before



System A,
Drive 1, After

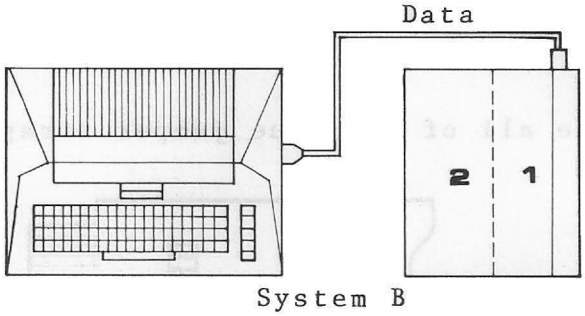
5. Plug your computer ac Power Adapter into an ac outlet and plug its small dc plug into your computer.

6. Plug your drive's ac power cord into an ac outlet.

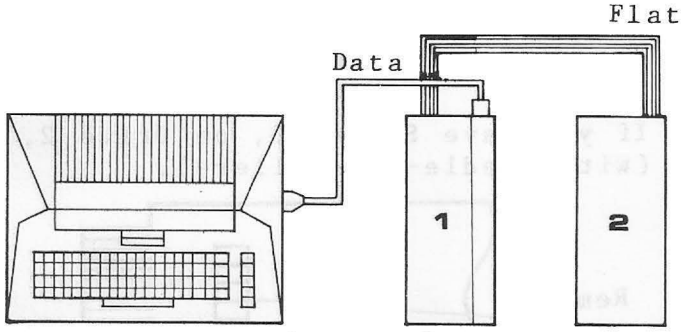
7. Continue with Chapter 4 for the checkout procedures.

Build System B or C

1. Decide if you have System B or System C. (Refer to Chapter 2)



System B

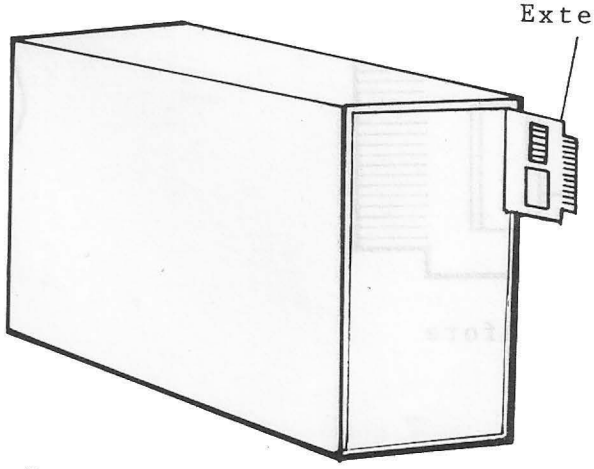


System C

2. If you have System B, connect the data cable between your computer and your controller drive.

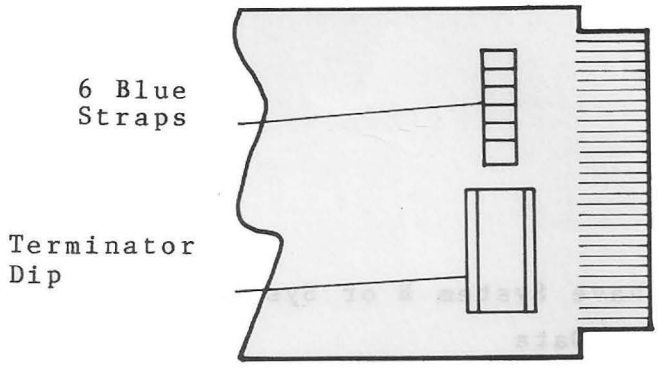
   If you have System C, connect the data cable between your computer and your controller drive, and connect the flat cable between your controller drive and your add-on drive.

3. Look at the rear of a Percom drive unit. Find the extender board; it extends about 1 inch by 2 inches beyond the unit's case.

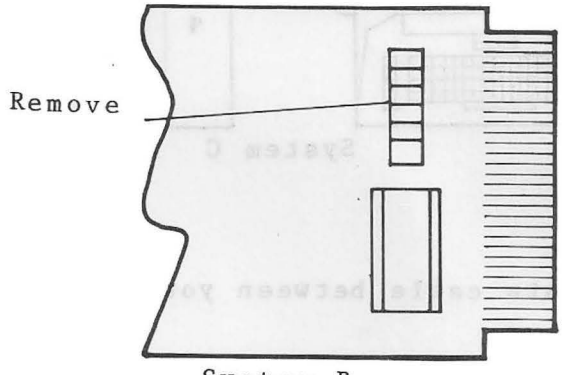


Rear View of Percom Drive

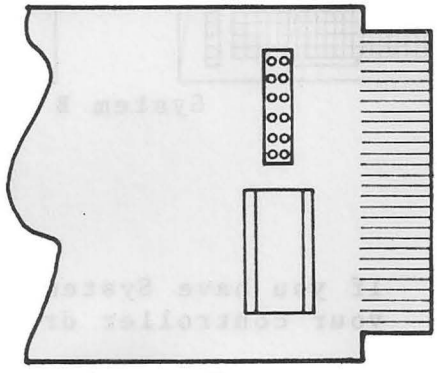
A closer look shows that every extender board has 6 blue jumper straps and a terminator dip.



4. If you have System B, on Drive 2, remove all of the blue jumper straps (with needle-nose pliers).

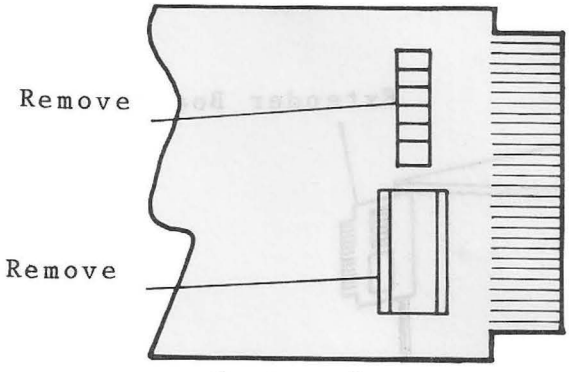


System B,
Drive 2, Before

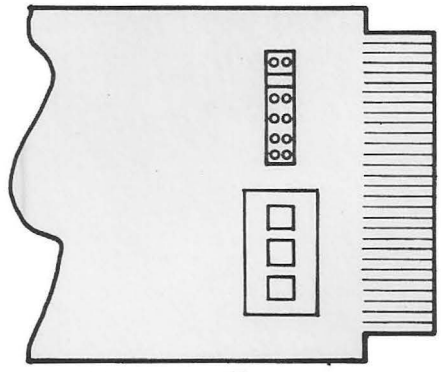


System B,
Drive 2, After

If you have System C, on Drive 1, remove all of the blue jumper straps except the second one from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

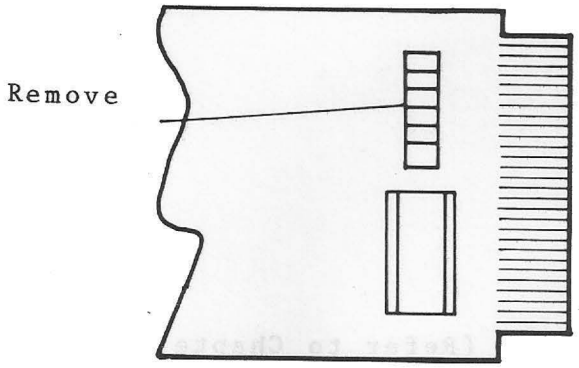


System C,
Drive 1, Before

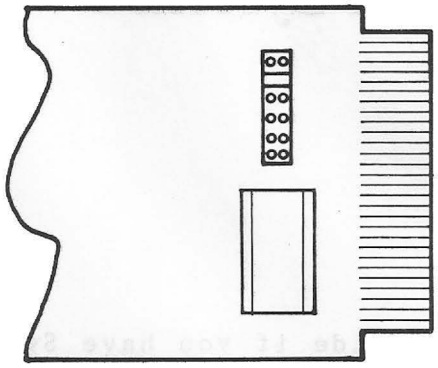


System C,
Drive 1, After

If you have System C, on Drive 2, remove all of the blue jumper straps except the second one from the top (with needle-nose pliers).



System C,
Drive 2, Before



System C,
Drive 2, After

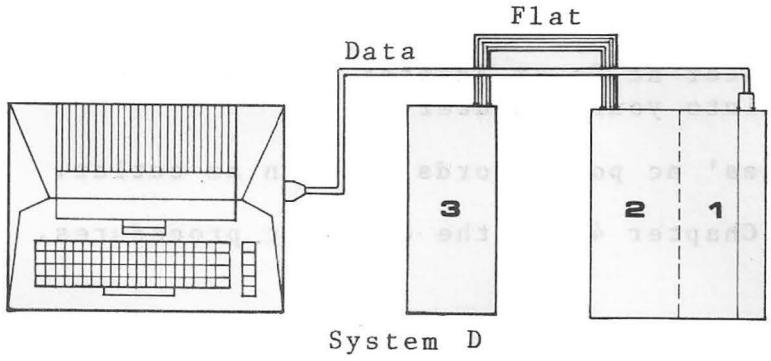
5. Plug your computer ac Power Adapter into an ac outlet and plug its small dc plug into your computer.

6. Plug your drives' ac power cords into an ac outlet.

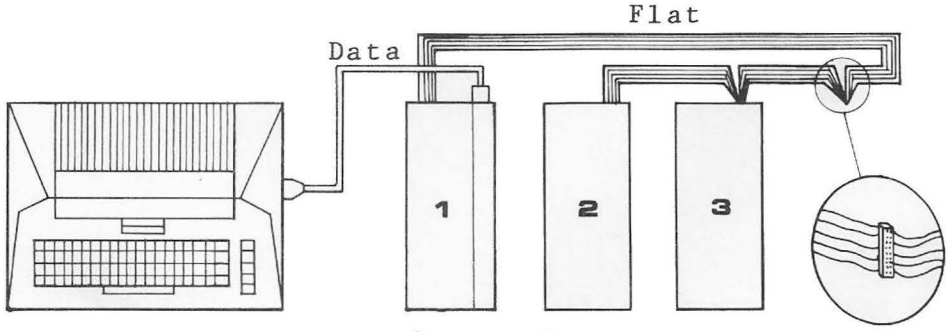
7. Continue with Chapter 4 for the checkout procedures.

Build System D or E

1. Decide if you have System D or System E. (Refer to Chapter 2.)



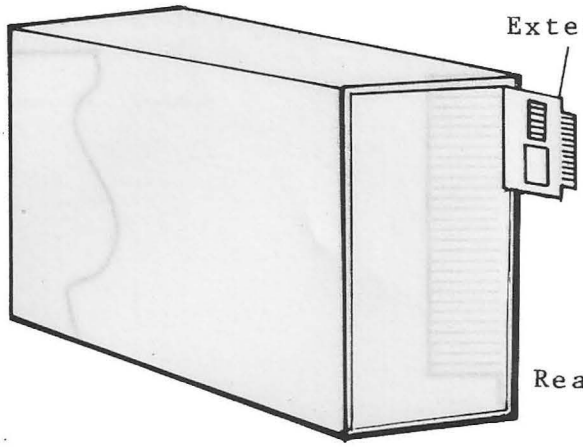
System D



System E

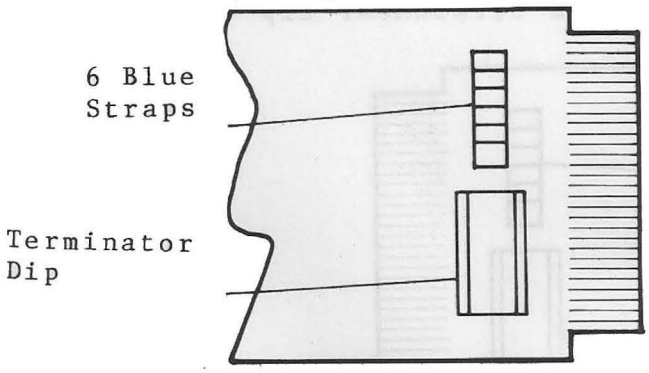
2. With System D and System E, connect the data cable between your computer and your controller drive, and connect the flat cable between your controller drive and your add-on drive(s).

3. Look at the rear of a Percom drive unit. Find the extender board; it extends about 1 inch by 2 inches beyond the unit's case.

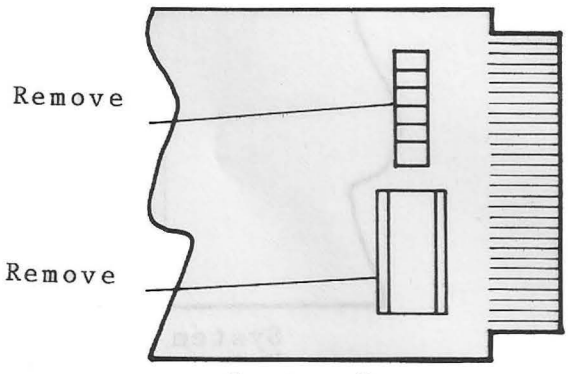


Rear View of Percom Drive

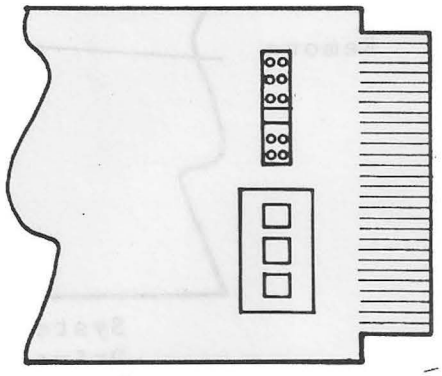
A closer look shows that every extender board has 6 blue jumper straps and a terminator dip.



4. If you have System D, on Drive 2, remove all of the blue jumper straps except the fourth one from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

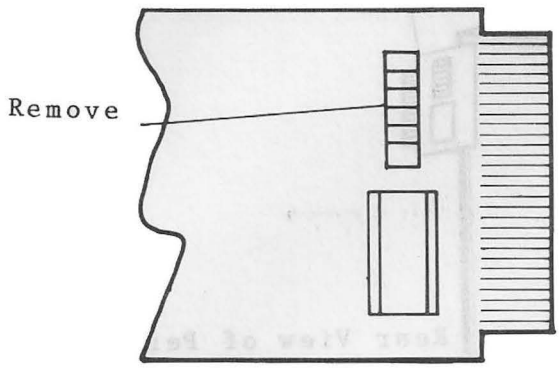


System D,
Drive 2, Before

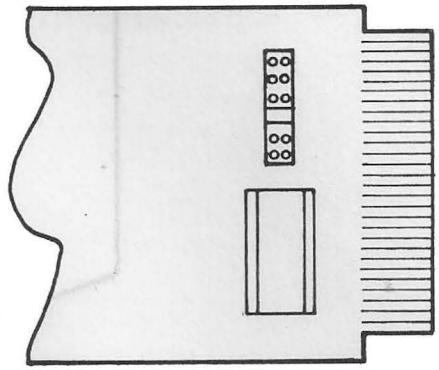


System D,
Drive 2, After

If you have System D, on Drive 3, remove all of the blue jumper straps except the fourth one from the top (with needle-nose pliers).

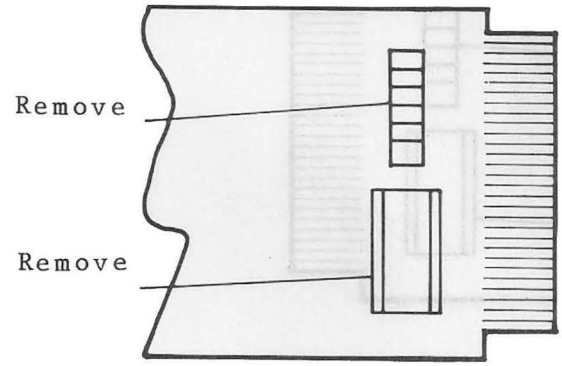


System D,
Drive 3, Before

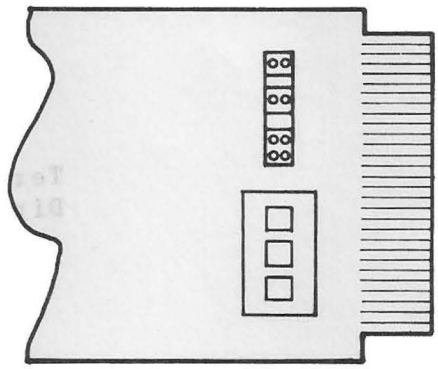


System D,
Drive 3, After

If you have System E, on Drive 1, remove all of the blue jumper straps except the second and fourth ones from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

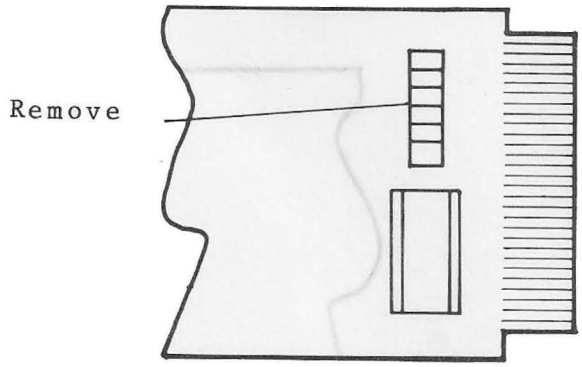


System E,
Drive 1, Before

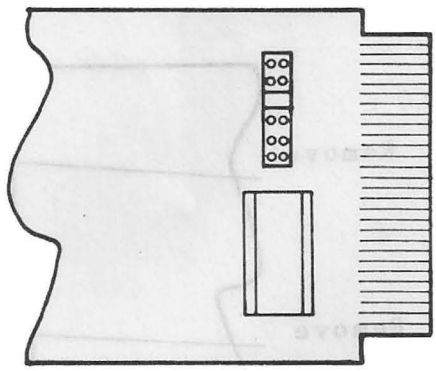


System E,
Drive 1, After

If you have System E, on Drive 2, remove all of the blue jumper straps except the third one from the top (with needle-nose pliers).

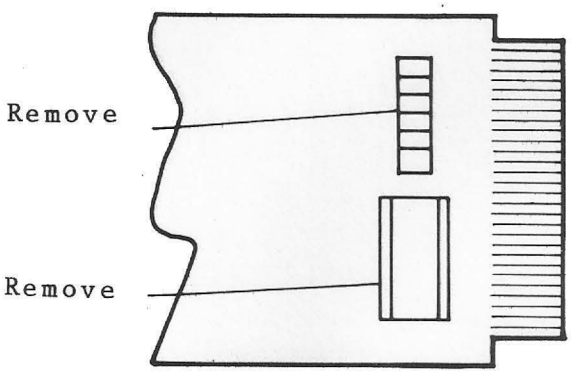


System E,
Drive 2, Before

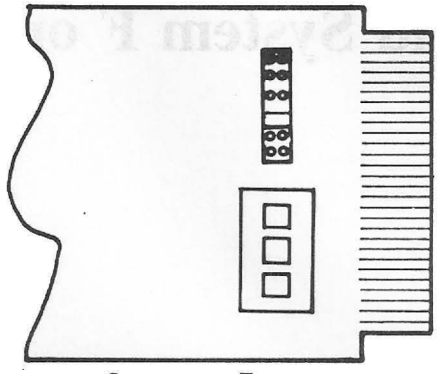


System E,
Drive, 2 After

If you have System E, on Drive 3, remove all of the blue jumper straps except the fourth one from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).



System E,
Drive 3, Before



System E,
Drive 3, After

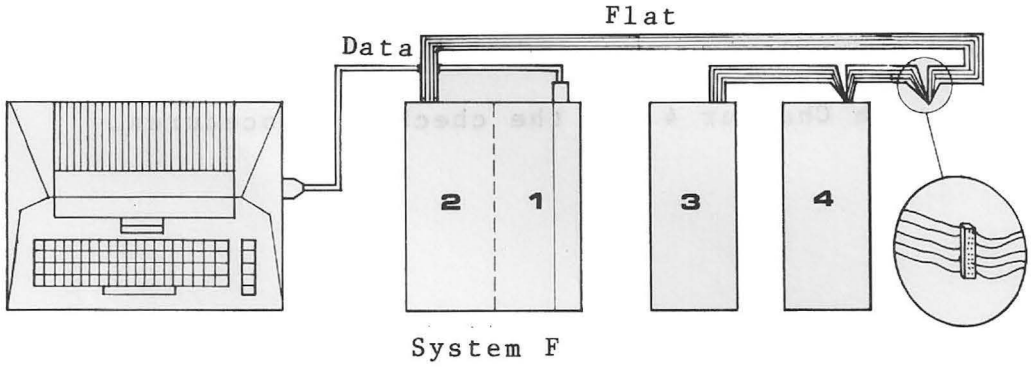
5. Plug your computer ac Power adapter into an ac outlet and plug its small dc plug into your computer.

6. Plug your drives' ac power cords into an ac outlet.

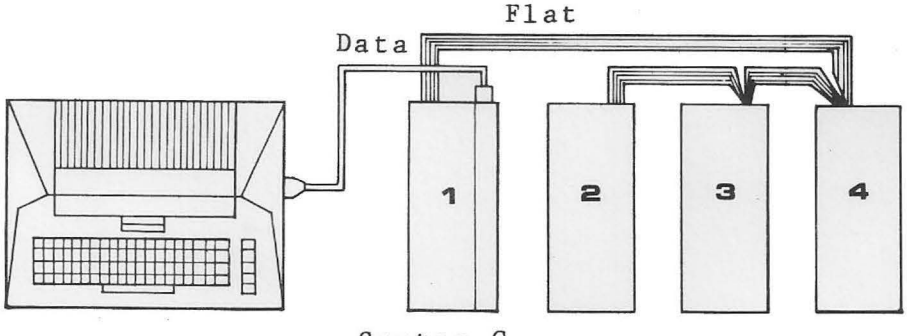
7. Continue with Chapter 4 for the checkout procedures.

Build System F or G

1. Decide if you have System F or System G. (Refer to Chapter 2.)



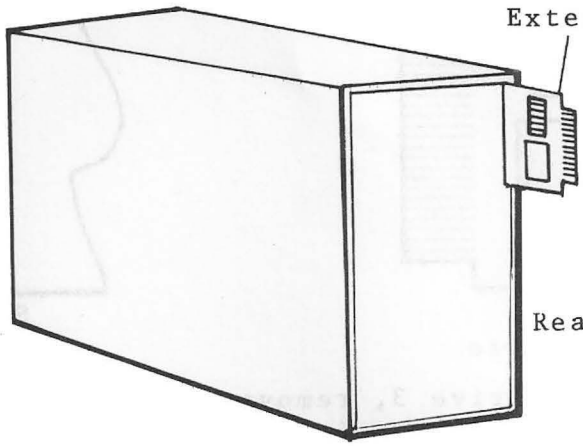
System F



System G

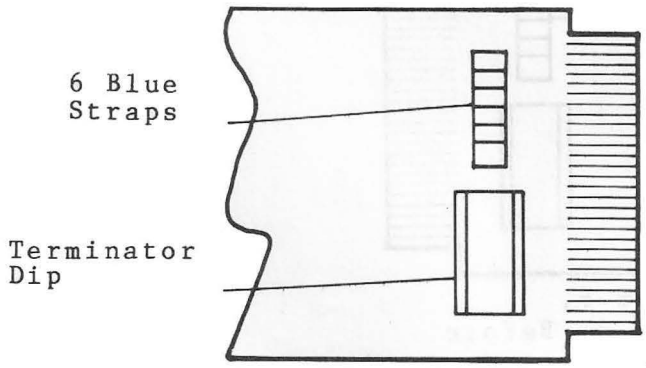
2. With System F and System G, connect the data cable between your computer and your controller drive, and connect the flat cable between your controller drive and your add-on drive(s).

3. Look at the rear of a Percom drive unit. Find the extender board; it extends about 1 inch by 2 inches beyond the unit's case.

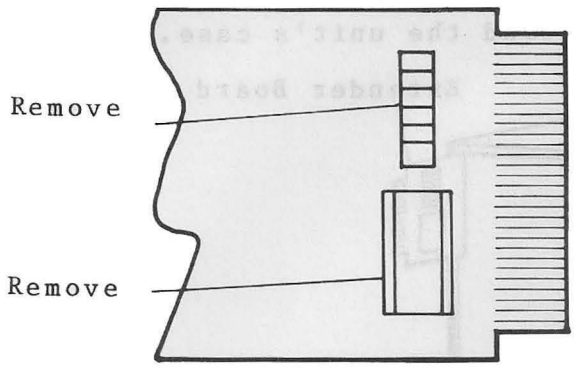


Rear View of Percom Drive

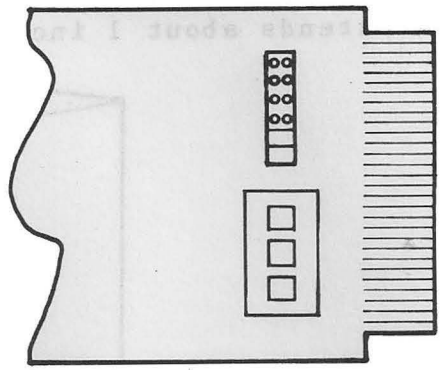
A closer look shows that every extender board has 6 blue jumper straps and a terminator dip.



4. If you have System F, on Drive 2, remove all of the blue jumper straps except the fifth and sixth ones from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

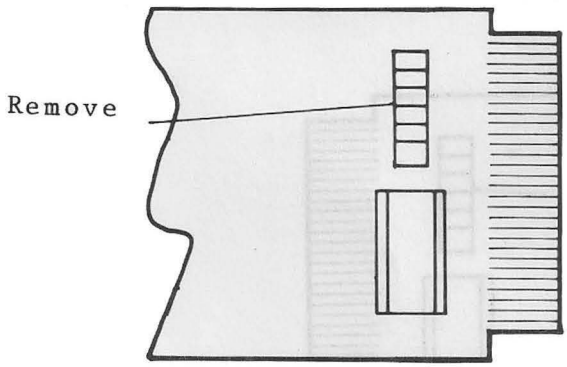


System E,
Drive 2, Before

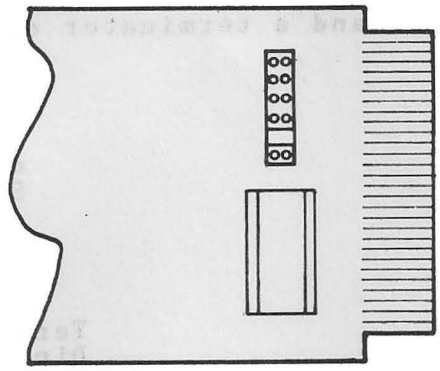


System E,
Drive 2, After

If you have System F, on Drive 3, remove all of the blue jumper straps except the fifth one from the top (with needle-nose pliers).

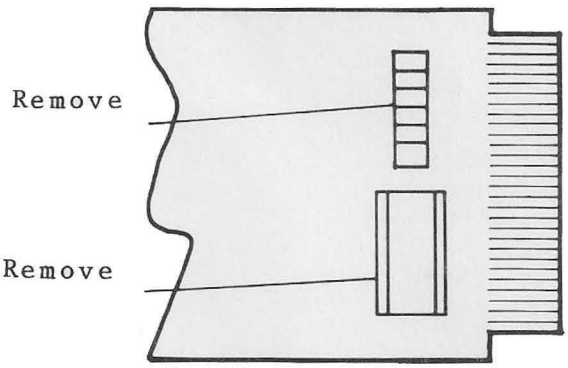


System F,
Drive 3, Before

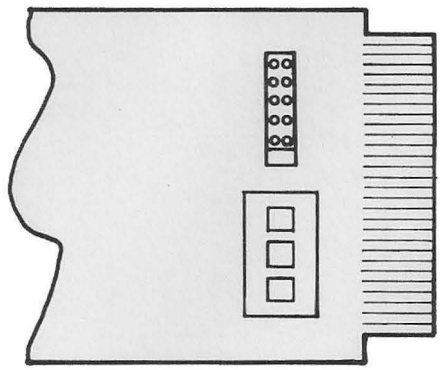


System F,
Drive 3, After

If you have System F, on Drive 4, remove all of the blue jumper straps except the sixth one from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

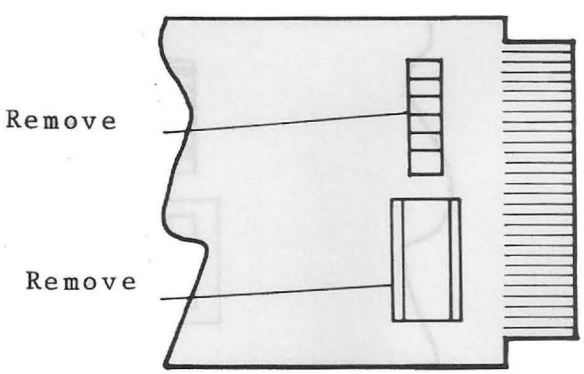


System F,
Drive 4, Before

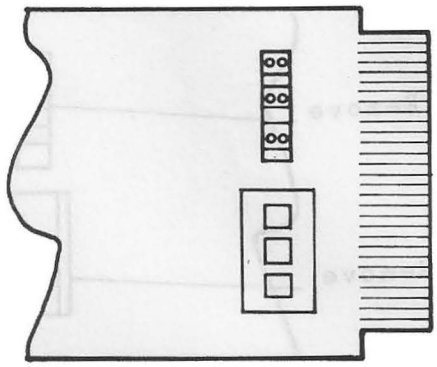


System F,
Drive 4, After

If you have System G, on Drive 1, remove all of the blue jumper straps except the second, fourth, and sixth ones from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

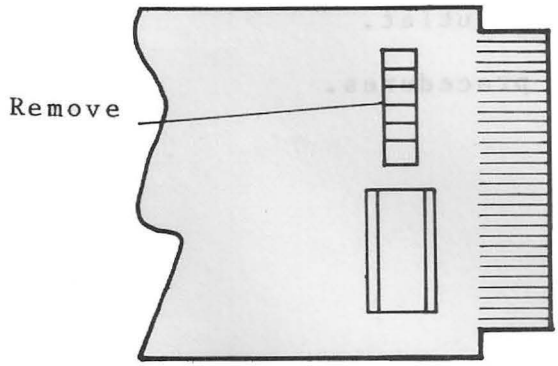


System G,
Drive 1, Before

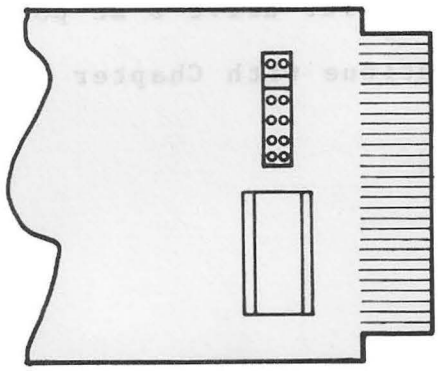


System G,
Drive 1, After

If you have System G, on Drive 2, remove all of the jumper straps except the second one from the top (with needle-nose pliers).

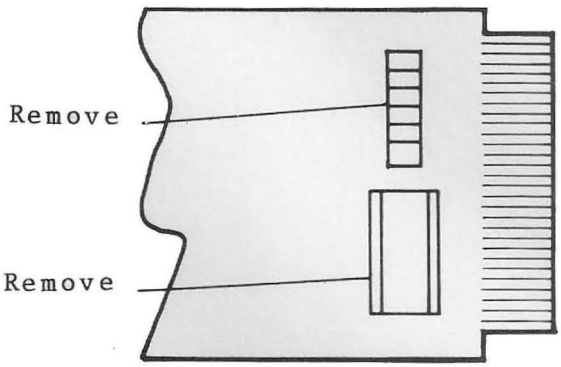


System G,
Drive 2, Before

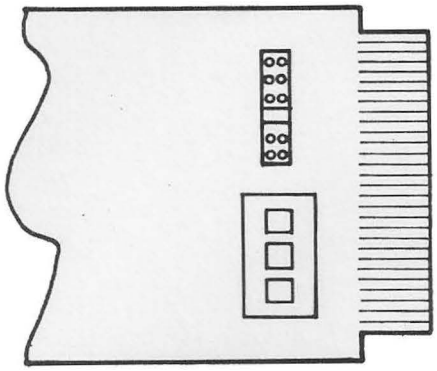


System G,
Drive 2, After

If you have System G, on Drive 3, remove all of the blue jumper straps except the fourth one from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

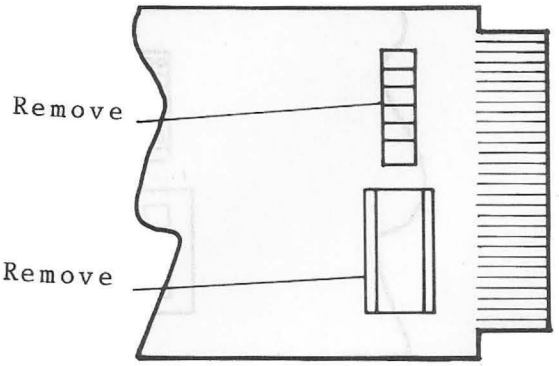


System G,
Drive 3, Before

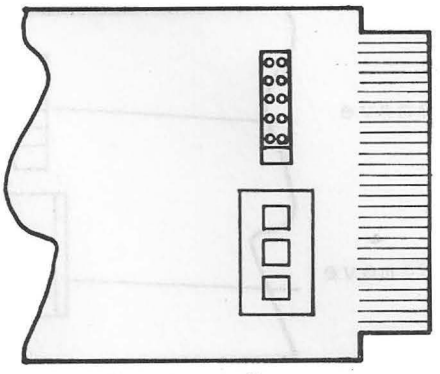


System G,
Drive 3, After

If you have System G, on Drive 4, remove all of the blue jumper straps except the sixth one from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).



System G,
Drive 4, Before



System G,
Drive 4, After

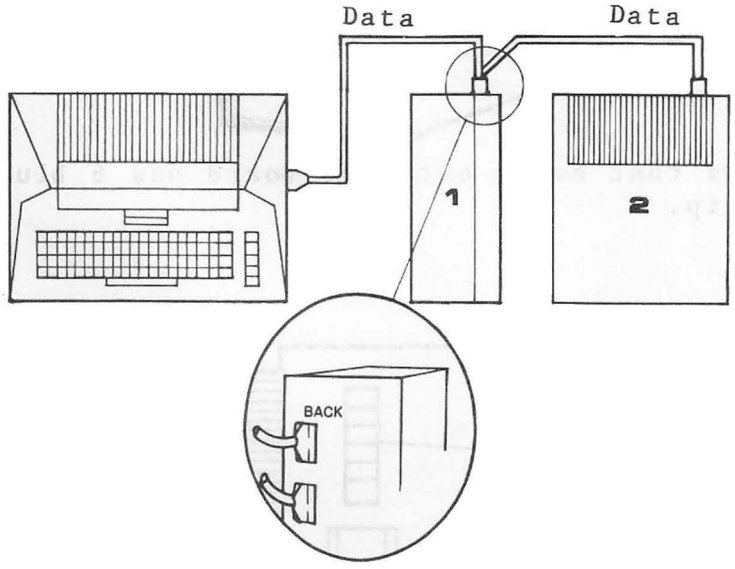
5. Plug your computer ac Power Adapter into an ac outlet and plug its small dc plug into your computer.

6. Plug your drive's ac power cord into an ac outlet.

7. Continue with Chapter 4 for the checkout procedures.

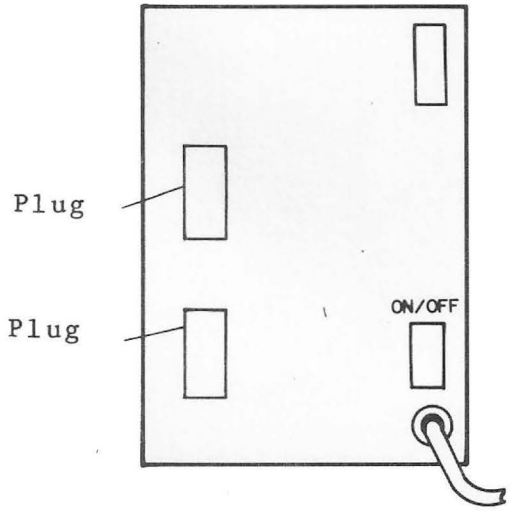
Build System H

1. You have System H. (Refer to Chapter 2.)



System H

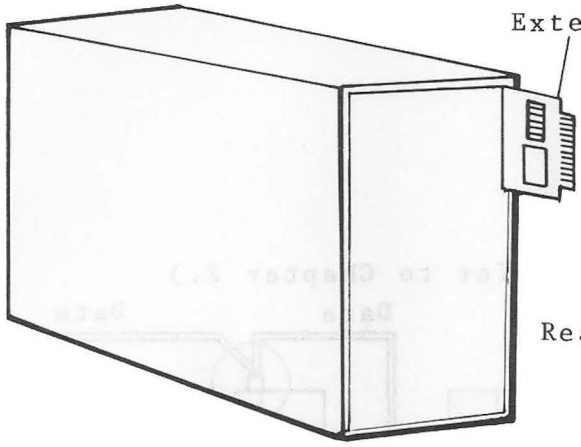
2. Look at the rear of your Percom controller. You will notice on the left side that there are two plugs; one is on top of the other. Both plugs are interchangeable.



Rear of
Controller Drive

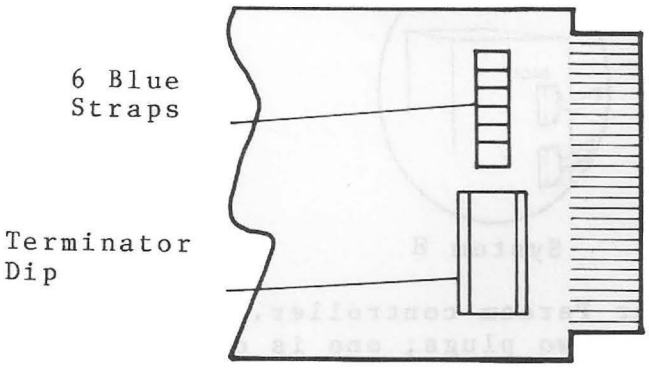
Connect one data cable between your computer and the Percom controller (using either plug on the controller). Connect another data cable between your Atari drive and the Percom controller (using either plug on the controller).

3. Look at the rear of your Percom drive unit. Find the extender board; it extends about 1 inch by 2 inches beyond the unit's case.

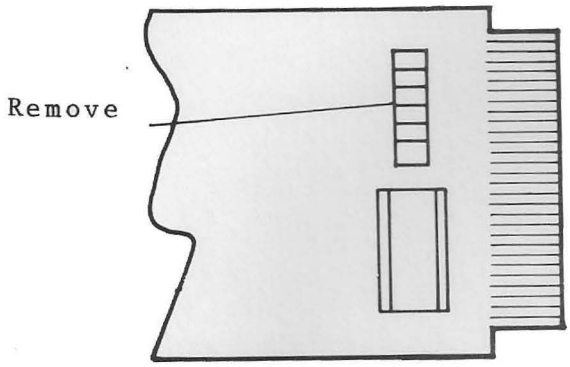


Rear View of Percom Drive

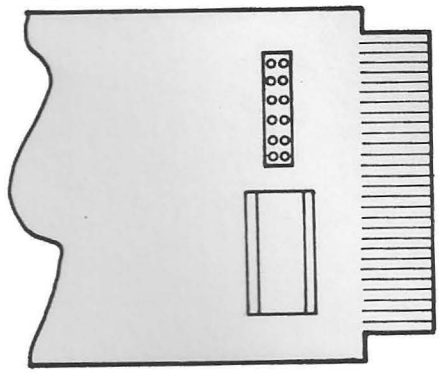
A closer look shows that every extender board has 6 blue jumper straps and a terminator dip.



4. From Drive 1, remove all of the blue jumper straps (with needle-nose pliers).

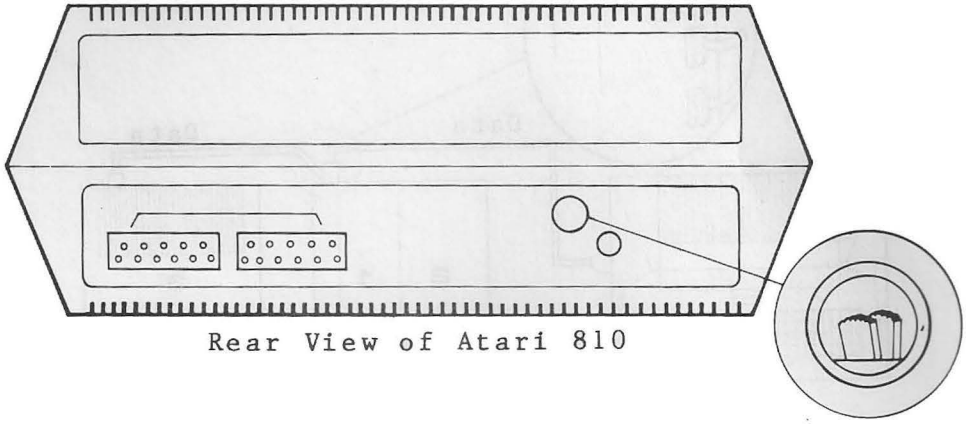


System H,
Drive 1, Before



System H,
Drive 1, After

5. Set the Drive Code Switches on the back of the Atari to 2. Set the white switch to the left and set the black switch to the right.



Rear View of Atari 810

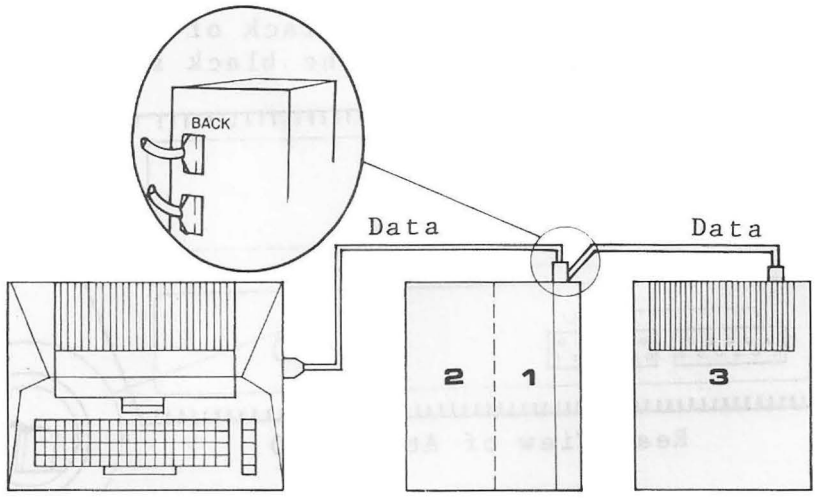
6. Plug your computer ac Power Adapter into an ac outlet and plug its small dc plug into your computer.

7. Plug your drives' ac power cords into an ac outlet.

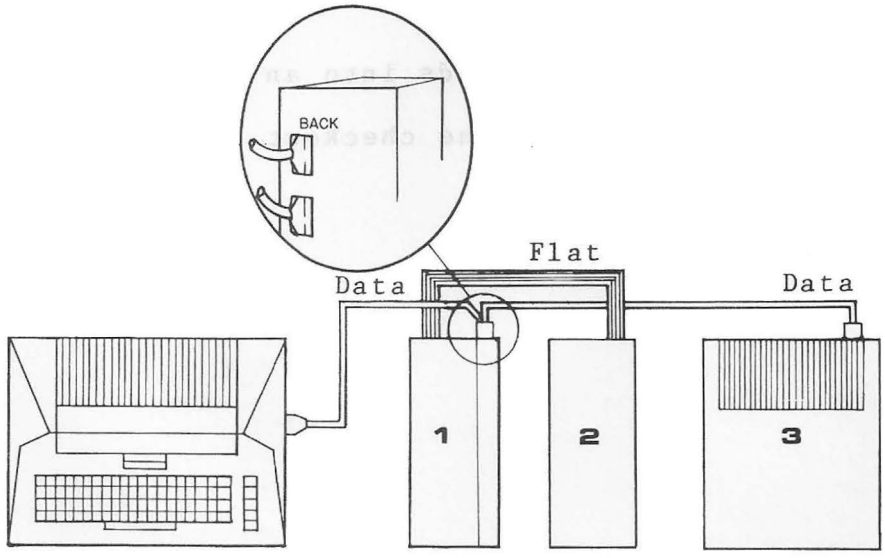
8. Continue with Chapter 4 for the checkout procedures.

Build System I or J

1. Decide if you have System I or System J. (Refer to Chapter 2.)

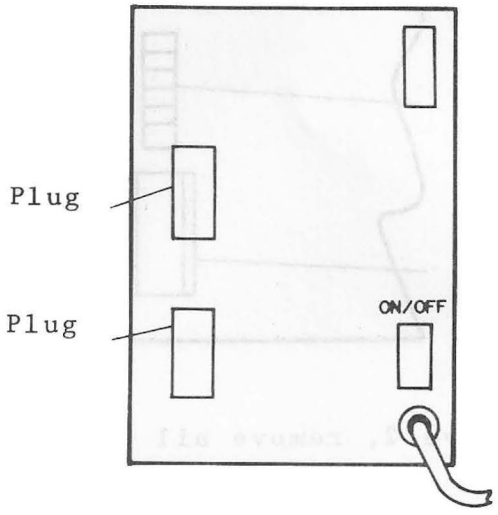


System I



System J

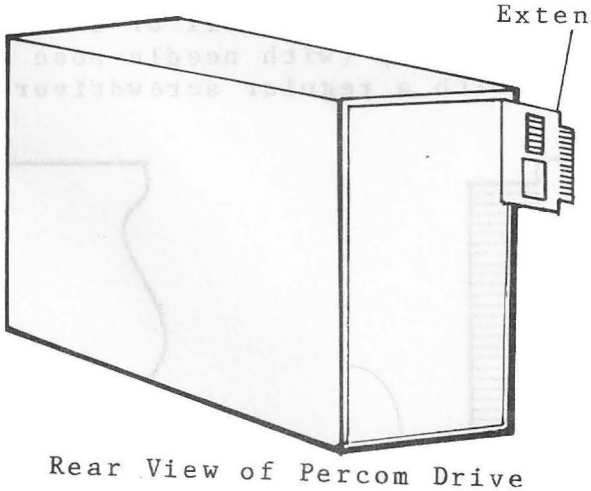
2. Look at the rear of your Percom controller. You will notice on the left side that there are two plugs; one is on top of the other. Both plugs are interchangeable.



Rear of Controller Drive

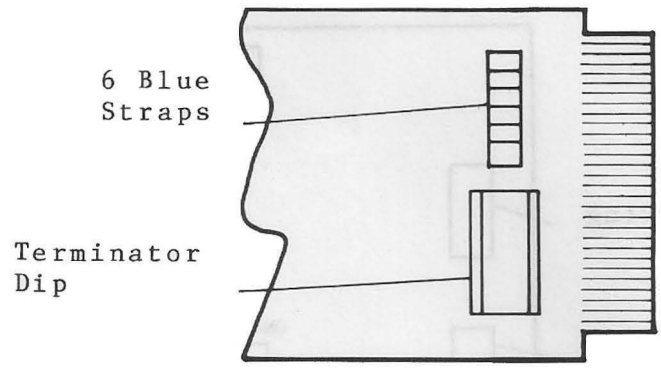
With System I or J, connect one data cable between your computer and the Percom controller (using either plug on the controller). Connect another data cable between your Atari drive and the Percom controller (using either plug on the controller). If you have System J, connect the flat cable between your Percom controller drive and the Percom add-on drive.

3. Look at the rear of your Percom drive unit. Find the extender board; it extends about 1 inch by 2 inches beyond the unit's case

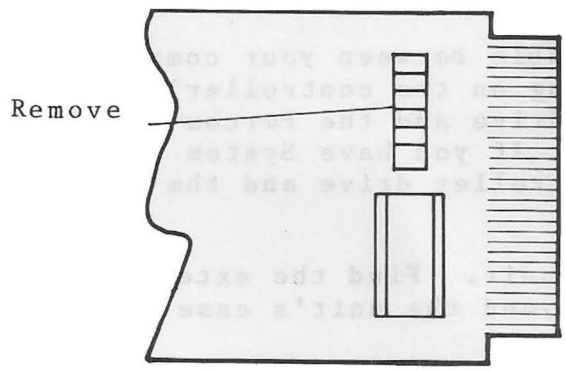


Rear View of Percom Drive

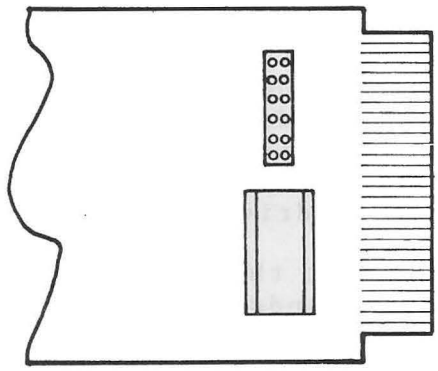
A closer look shows that every extender board has 6 blue jumper straps and a terminator dip.



4. If you have System I, on Drive 2, remove all of the blue jumper straps (with needle-nose pliers).

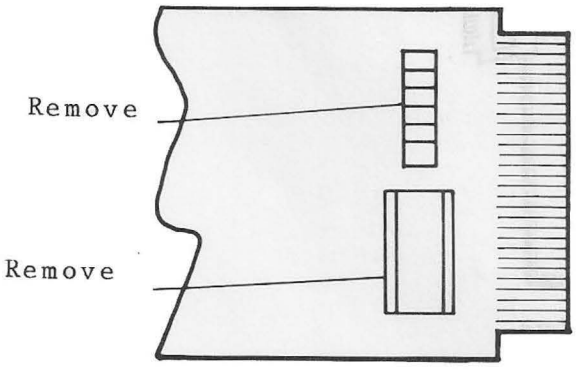


System I,
Drive 2, Before

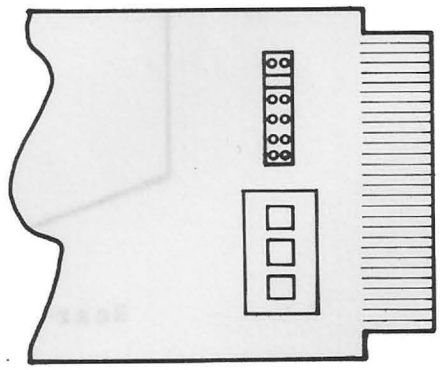


System I,
Drive 2, After

If you have System J, on Drive 1, remove all of the blue jumper straps except the second one from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

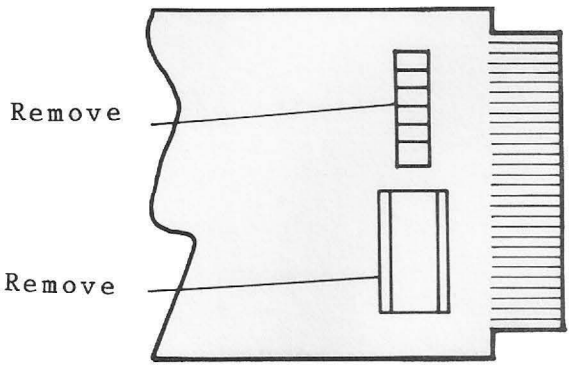


System J,
Drive 1, Before

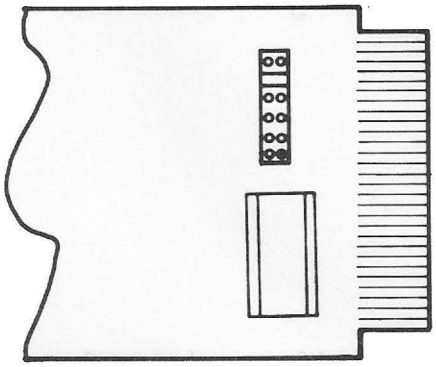


System J,
Drive 1, After

If you have System J, on Drive 2, remove all of the blue jumper straps except the second one from the top (with needle-nose pliers).

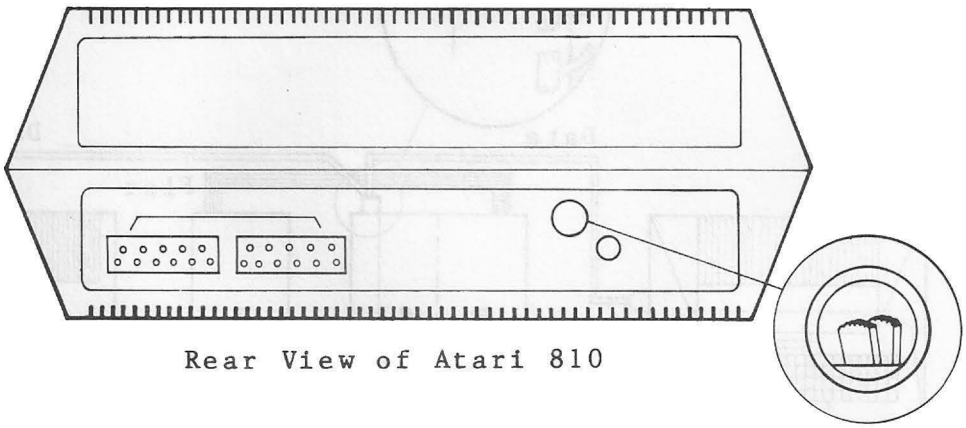


System J.
Drive 2, Before



System J
Drive 2, After

5. Set the Drive Code Switches on the back of the Atari to 3 for System I or System J. Both the white and black switches are set to the right.



Rear View of Atari 810

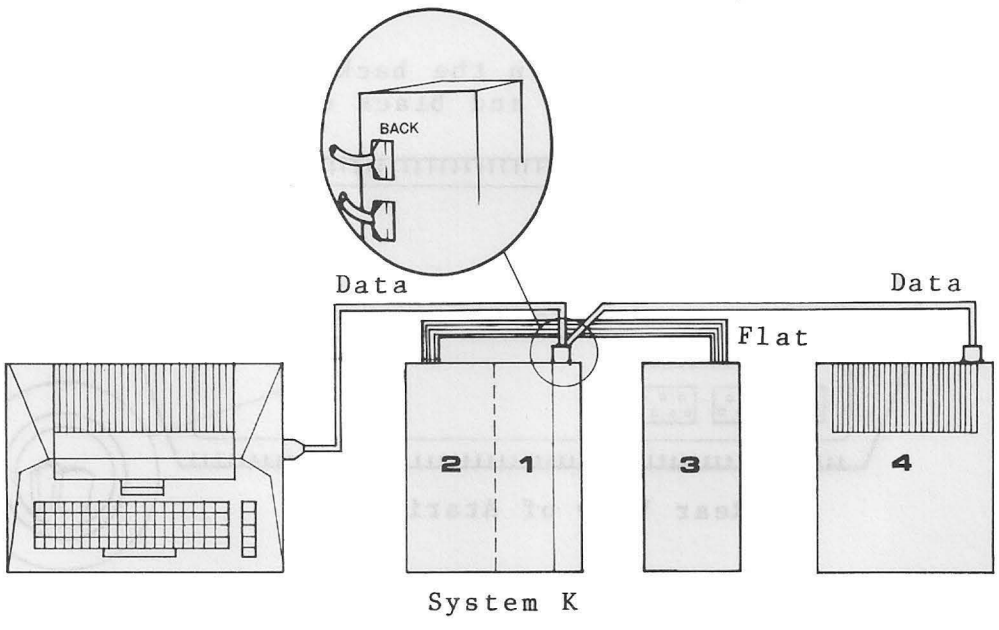
6. Plug your computer ac Power Adapter into an ac outlet and plug its small dc plug into your computer.

7. Plug your drives' ac power cords into an ac outlet.

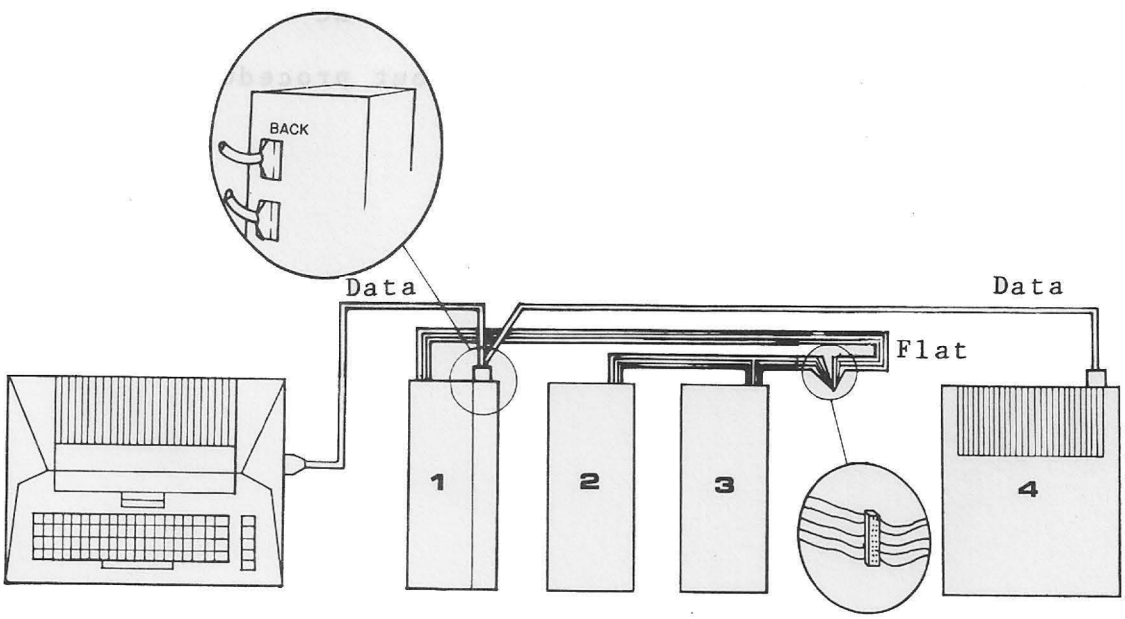
8. Continue with Chapter 4 for the checkout procedures.

Build System K or L

1. Decide if you have System K or System L. (Refer to Chapter 2.)

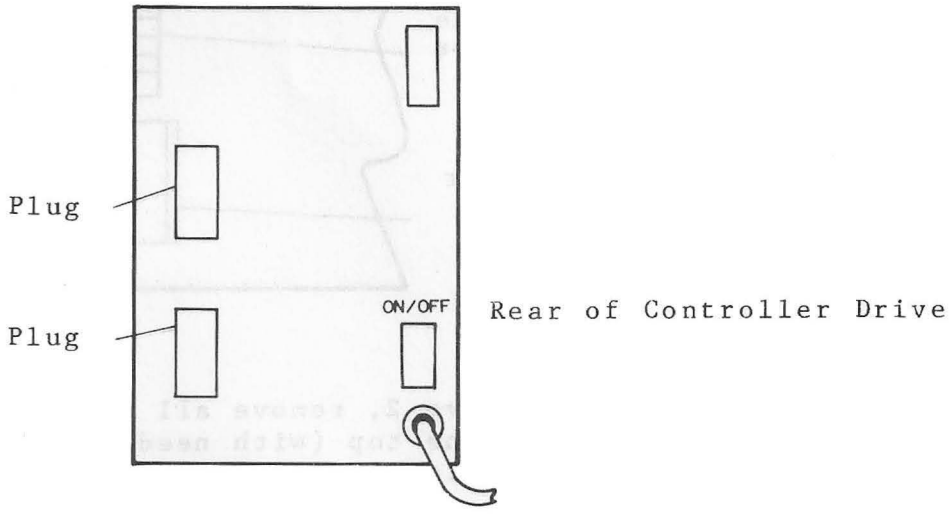


System K



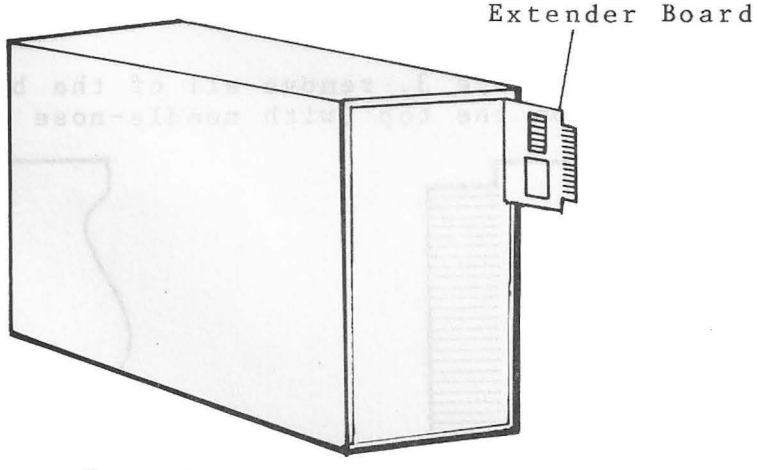
System L

2. Look at the rear of your Percom controller. You will notice on the left side that there are two plugs; one is on top of the other. Both plugs are interchangeable.



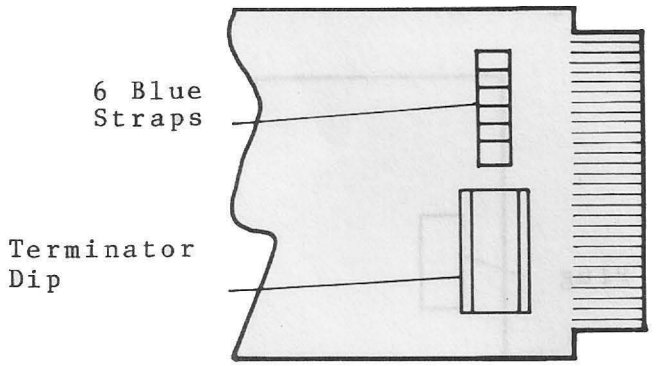
With System K or System L, connect one data cable between your computer and the Percom controller (using either plug on the controller). Connect another data cable between your Atari drive and the Percom controller (using either plug on the controller). Connect the flat cable between your Percom controller drive and the Percom add-on drive(s).

3. Look at the rear of your Percom drive unit. Find the extender board; it extends about 1 inch by 2 inches beyond the unit's case.

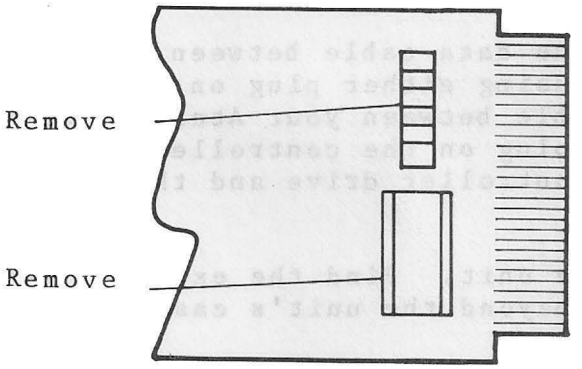


Rear View of Percom Drive

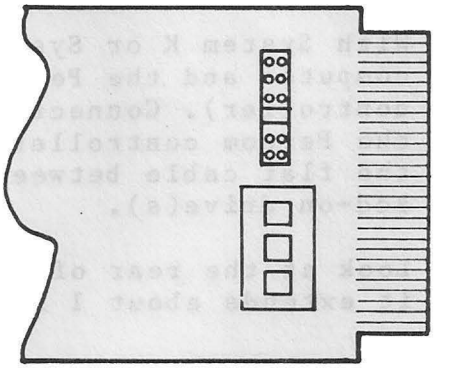
A closer look shows that every extender board has 6 blue jumper straps and a terminator dip.



4. If you have System K, on Drive 2, remove all of the blue jumper straps except the fourth one from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

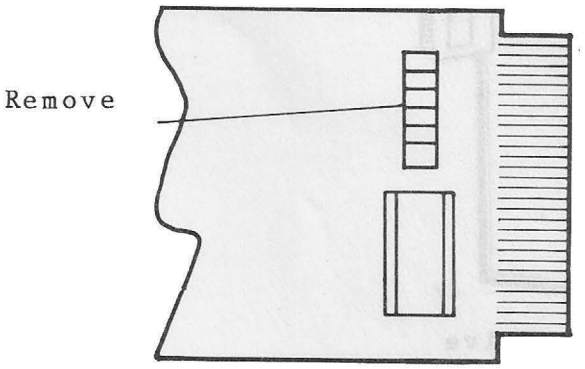


System K,
Drive 2, Before

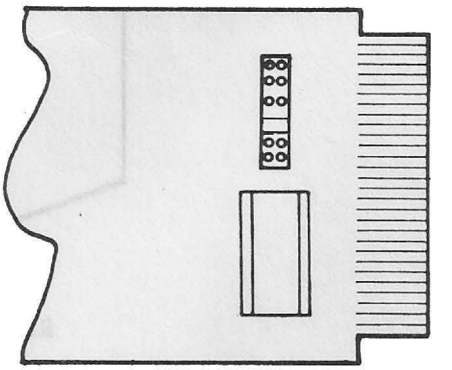


System K,
Drive 2, After

If you have System K, on Drive 3, remove all of the blue jumper straps except the fourth one from the top (with needle-nose pliers).

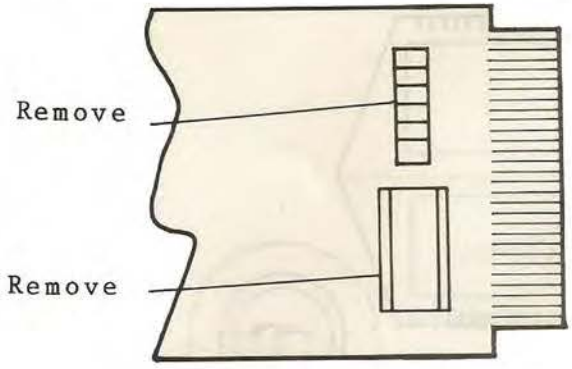


System K,
Drive 3, Before

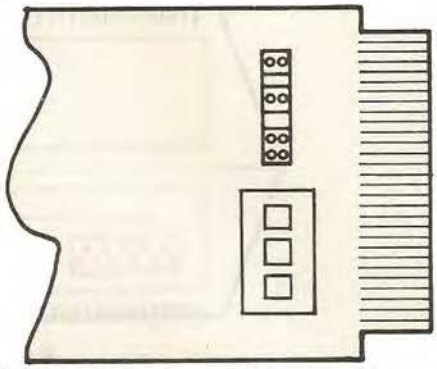


System K,
Drive 3, After

If you have System L, on Drive 1, remove all of the blue jumper straps except the second and fourth ones from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

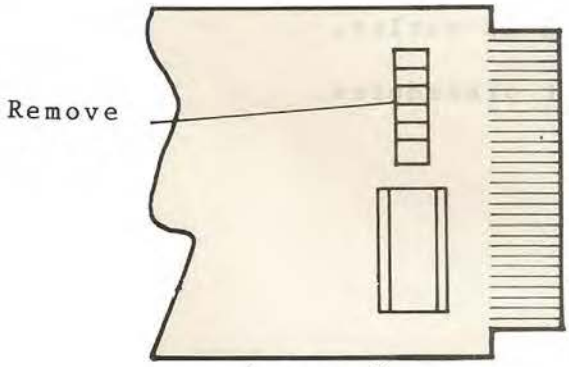


System L,
Drive 1, Before

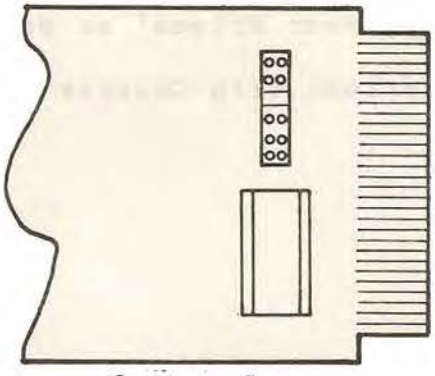


System L,
Drive 1, After

If you have System L, on Drive 2, remove all of the blue jumper straps except for the third one from the top (with needle-nose pliers).

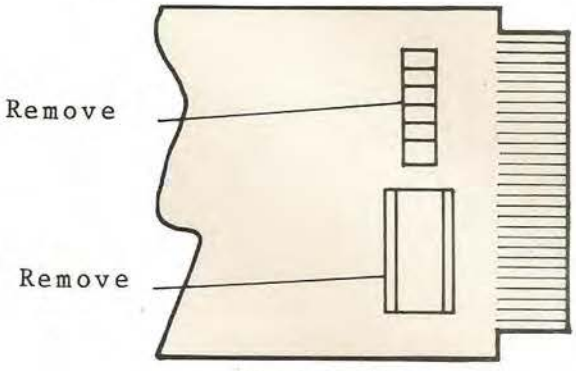


System L,
Drive 2, Before

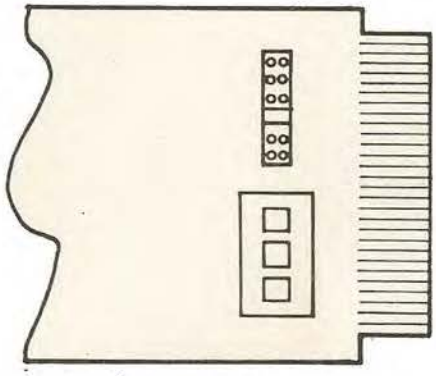


System L,
Drive 2, After

If you havs System L, on Drive 3, remove all of the blue jumper straps except for the fourth one from the top (with needle-nose pliers), and remove the terminator dip (with a regular screwdriver).

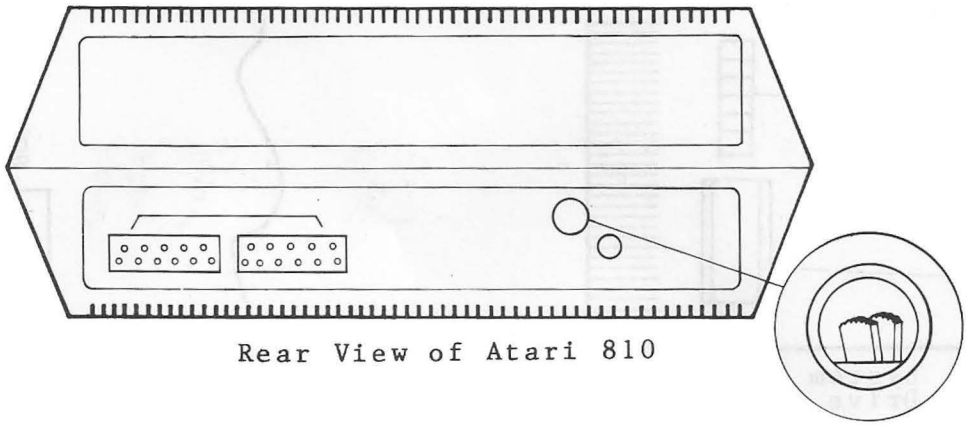


System L,
Drive 3, Before



System L,
Drive 3, After

5. Set the Drive Code Switches on the back of the Atari to 4 for System K or System L. Set the white switch to the right and set the black switch to the left.



Rear View of Atari 810

6. Plug your computer ac Power Adapter into an ac outlet and plug its small dc plug into your computer.

7. Plug your drives' ac power cords into an ac outlet.

8. Continue with Chapter 4 for the checkout procedures.

CHECKOUT

CHAPTER FOUR

4-1 Is the System Cabled?

4-1 Get Familiar with the Diskettes

4-2 What Happens During the Checkout?

4-2 The Checkout

4-2 Check Out the Controller Drive

4-4 You Are Finished If...

4-4 Check Out the Add-On Drives

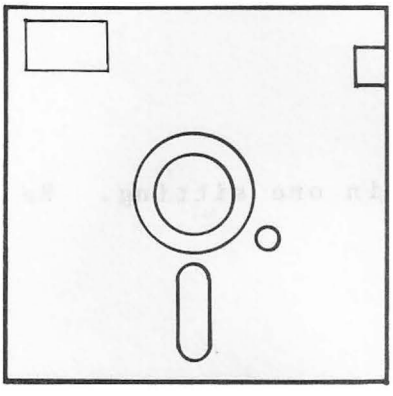
Chapter Four checks out the drives.

Is the System Cabled?

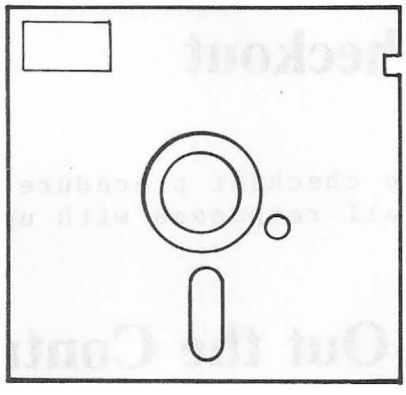
Please be sure to cable your system, as shown in Chapters 2 and 3, before continuing with Chapter 4.

Get Familiar with the Diskettes

You need a Single-Density OS/A+ 2.00 Disk that has a write-protect tab on it and two blank disks that are not write-protected.

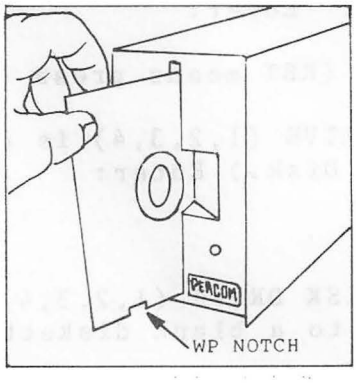


Disk Is Write Protected



Disk Is Not Write Protected

Disks are inserted into a Percom AT-88 Drive with the write-protect notch down.



What Happens During the Checkout?

The following occur during checkout:

- The computer is booted with the Single-Density OS/A+ 2.00 Disk.
- OS/A+ 2.00 is copied to a blank disk.
- The former blank disk needs to be labeled Single-Density OS/A+ 2.00 Backup.
- The computer is booted with the Single-Density OS/A+ 2.00 Backup Disk.
- If you have more than one drive, the section Checkout Add-On Drives is performed.

The Checkout

The entire checkout precedure is to be performed in one sitting. Be sure to enter all responses with uppercase letters.

Check Out the Controller Drive

1. Turn on the following in this order: the Percom Data Add-On Drives (if you have any), the Atari 810 Drive (if you have one), and the Percom Data Controller Drive.

2. Insert a write-protected Single-Density OS/A+ 2.00 Disk in Drive 1, close the door and turn on the computer.

3. The prompts OSS OS/A+ - ATARI VERSION 2.00 COPYRIGHT (C) 1982 OSS INC and D1 are displayed. Enter:

   DUPDSK [RET] (RET means press RETURN button)

4. The prompt SOURCE DISK DRIVE (1,2,3,4) is displayed. (Source disk refers to the OS/A+ 2.00 Disk.) Enter:

   1 [RET]

5. The prompt DESTINATION DISK DRIVE (1,2,3,4) is displayed. (Destination disk refers to a blank diskette.) Enter:

   1 [RET]

6. The prompt FORMAT DESTINATION DISK (Y OR N) is displayed. Enter:

   Y [RET]

7. The prompts PUT SOURCE DISK IN DRIVE 1 and WHEN READY HIT RETURN are displayed. The source disk is already in Drive 1. Enter:

   [RET]

8. The prompts READING SOURCE DISK, PUT DESTINATION DISK IN DRIVE 1, and WHEN READY HIT RETURN are displayed. Remove the source disk from Drive 1, and insert a blank disk in Drive 1 and close the door. Enter:

   [RET]

9. The prompts FORMATTING DESTINATION DISK, WRITING DESTINATION DISK, PUT SOURCE DISK IN DRIVE 1, and WHEN READY HIT RETURN are displayed. Remove the blank disk from Drive 1, and insert the source disk and close the door. Enter:

   [RET]

10. The prompts READING SOURCE DISK, PUT DESTINATION DISK IN DRIVE 1, and WHEN READY HIT RETURN are displayed. Remove the source disk from Drive 1, and insert the destination disk in Drive 1 and close the door. Enter:

    [RET]

11. You may have to repeat steps 9 and 10. Proceed according to the prompts and then do step 12.

12. The prompts WRITING DESTINATION DISK, ***DUPLICATE DONE***, and COPY SAME DISK AGAIN (Y OR N) are displayed. Enter:

    N [RET]

13. Remove what was a blank disk from Drive 1, label it Single-Density OS/A+ 2.00 Backup, and put a write-protect tab on it.

14. Turn the computer off, turn the computer on, and then insert the OS/A+ 2.00 Backup Disk in Drive 1. If you get the prompt D1 displayed on the screen, everything is working properly.

    If there is a problem, start again with step 1.

You Are Finished If . . .

If you only have one drive, the Percom Data Controller Drive, stop here.

If you have the Percom Data Controller Drive and one, two, or three Percom Add-On Drives, continue with Checkout the Add-On Drives.

Check Out the Add-On Drives

1. If you have Add-On Drives, the first one is probably addressed as Drive 2, the second is probably addressed as Drive 3, and the third is probably addressed as Drive 4.

2. In order to check the Add-On Drives, you are going to make a copy of the OS/A+ 2.00 Backup Disk; this backup-of-a-backup can be saved or used for other files. Your OS/A+ 2.00 Backup disk should still be in Drive 1 and the prompt D1 should still be displayed. Enter:

   DUPDSK [RET]

3. The prompt SOURCE DISK DRIVE (1,2,3,4) is displayed. Enter:

   1 [RET]

4. The prompt DESTINATION DISK DRIVE (1,2,3,4) is displayed. Enter:

   2 [RET]

5. The prompt FORMAT DESTINATION DISK (Y OR N) is displayed. Enter:

   Y [RET]

6. The prompts PUT SOURCE DISK IN DRIVE 1, PUT DESTINATION DISK IN DRIVE 2, and WHEN READY HIT RETURN are displayed. The source disk should already be in Drive 1 and you need to put a blank disk in Drive 2. Enter:

   [RET]

7. The prompts READING SOURCE DISK, FORMATTING DESTINATION DISK, WRITING DESTINATION DISK, ***DUPLICATE DONE***, and COPY SAME DISK AGAIN (Y OR N) are displayed. Enter:

   N [RET]

8. Remove the OS/A+ 2.00 Backup disk from Drive 1 and remove the backup-of-a-backup disk (the former blank disk) from Drive 2.

9. Turn the computer off, turn the computer on, and then insert the backup-of-a-backup into Drive 1 and close the door.

10. If the prompt D1 is displayed on the screen, everything is working properly.

11. Repeat this procedure for every Add-On Drive. Continue to put the source disk in Drive 1 and put the destination disk (a blank disk) in Drive 3 and Drive 4.

APPENDIX

A-1 Nothing Happened

Nothing Happened

If you have read the manual and followed the instructions and your system is just sitting there looking back at you with no sign of life, try the following:

1. Go to Chapter 2 and decide which system you have.

2. Go to the appropriate page in Chapter 3.

3. Cable your drives to the computer. Make sure your cables are securely inserted and not loose.

4. If you have a Percom Data Drive, remove, if necessary, the correct blue jumper straps and terminator dips.

5. If you have an Atari 810 Drive, set the Drive Code Switches to the correct positions.

6. Plug your computer and disk drives into a 110 ac outlet.

7. Turn on the following in this order: Percom Data Add-On Drives (if you have any), Atari 810 Drive (if you have one), Percom Data Controller Drive, and computer.

8. Insert a write protected Single-Density OS/A+ 2.00 disk into Drive 1.

9. The computer automatically boots. Your system is working if the prompts OSS OS/A+ - ATARI VERSION 2.00 COPYRIGHT (C) 1982 OSS INC and D1 are displayed.

PROBLEM REPORT FORM

In case of a problem, please read the instructions on the inside back cover of this manual. If you need to report a problem, please fill out this form completely and send it to Percom. If it is necessary to return equipment to solve the problem, include the problem report with the returned equipment. If you do not need to return equipment, mail this report to the Service Department address given on page iii, the full title page.

We suggest you retain a copy for reference.

I Your Name _____ Date _____

Address _____

City _____ State ___ ZIP _____

Telephone Number ( ) _____

II Percom Product _____ Version _____

Date of Purchase _____ Dealer°s Name _____

III Description of Your Equipment

Computer _____ Version _____ Memory _____

Disk System _____ Make of Drives _____

Number of Drives ____ Number of Tracks Each Drive _____

Make and Model of Printer _____

Other Peripherals _____

Disk Operating System _____ Version _____

Other Software _____

_____

_____

(Continued)

(Problem Report, Continued)

If you have made any modifications to your hardware or software, please describe fully, even if only minor.

Use an additional sheet if necessary.

If there is anything unique or unusual about your system configuration or your system memory map, please describe fully.

IV Problem Description

IMPORTANT NOTICES

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IN CASE OF DIFFICULTY
PLEASE, REREAD THE INSTRUCTION MANUAL

Please do not telephone. We cannot guarantee someone knowledgeable about your problem will be available to answer when you call. Moreover, we have found that it is very difficult to understand problems described over the telephone, and even more difficult to solve them while you wait.

If you are unable to resolve your problem, either contact your Percom Data Retailer for assistance or mail us a letter with a completed Problem Report Form enclosed. A Problem Report Form is included at the end of this manual.

When your letter is received, your problem will be give to customer service. Every effort will be made to respond to your letter promptly. If necessary, customer service will attempt to duplicate your problem, and will confer with engineers and other technicians as required. Customer service may write or call you for more operation.

If you return equipment for repair, please be sure to follow the procedures given below. Be sure to enclose a completed Problem Report with the returned equipment.

HOW TO RETURN EQUIPMENT FOR REPAIR

Please read the above information under IN CASE OF DIFFICULTY before proceeding to return equipment for repair.

You have done everything you know how to do. You have read and reread the instruction manual and technical memos but you still cannot get your system to work!

It is time to let us help. We have yet to find a sick unit that cannot be restored to full health and vigor.

There are a few things you can do that will help us expedite your repair:

1. Write or call for return authorization before returning any merchandise. RETURNS WITHOUT AUTHORIZATION WILL BE REFUSED.

2. Copy the blank Problem Report, fill in the copy, and return the unit for repair. Questions that do not relate to the reason the unit is being returned for repair must be sent in under separate cover.

3. OUT-OF-WARRANTY repairs are performed for a labor charge, parts, and shipping. If we find that a unit is functioning properly as received and does not require any service, there will be a CHECKOUT CHARGE plus return shipping and insurance. Do not enclose any payment. The unit will be returned C.O.D. for authorized repairs and shipping.

4. When returning a unit for repair, pack it in a large carton with at least 3 inches of padding on all sides. We will not attempt to service any unit if there is shipping damage until the claim is settled. Ship prepaid by UPS or INSURED PARCEL POST to: Service Department, Percom Data Corporation, 11220 Pagemill Road, Dallas, Texas, 75243.

HOW TO ORDER MERCHANDISE BY MAIL

The following procedures will help us expedite your mail orders. W suggest, however, that you make your purchase from an authorized Percom Data Retailer whenever possible. If you do not know the name of a nearby Percom Retailer, call our toll-free order number and ask for Sales.

TOLL-FREE PHONE ORDERS: To save you money and insure prompt service, we have installed a toll-free number (1-800-527-1222) FOR PLACING ORDERS ONLY. We cannot transfer calls received on our toll-free number to other departments - please help us serve you better by dialing the correct number.

PROMPT SERVICE: We ship the cheapest, fastest way. We use UPS up to 50 pounds per item, 100 pounds per shipment. We use truck freight for large or heavy shipments. Transportation charges are collected on delivery.

C.O.D. ORDERS: C.O.D. orders are accepted where possible.

TEXAS SALES TAX: Texas law requires that we collect a 5% sales tax on all shipments within Texas.

MINIMUM ORDERS: We will add a handling charge of $2.00 to all orders totaling less than $15.00.

DAMAGED SHIPMENTS: Have the carrier note if the shipment is in damaged condition, then file a claim. If there is concealed damage, contact the carrier for an inspection and then file a claim. Save your shipping carton.

* * * IN CASE OF DIFFICULTY * * *

PLEASE, RE-READ THE INSTRUCTION MANUAL!

Please do not telephone. We cannot guarantee someone knowledgeable about your problem will be available to answer when you call. Moreover, we have found that it is very difficult to understand problems described over the telephone, and even more difficult to solve them while you wait.

If you are unable to resolve your problem, either contact your Percom Retailer for assistance or mail us a letter with a completed Problem Report Form enclosed. A Problem Report Form is included at the end of this manual.

When your letter is *received*, your problem will be assigned to a customer service technician. He will make every effort to respond to your letter promptly. If necessary, he will attempt to duplicate your problem, and will confer with engineers and other technicians as required. He may write or call you for more information.

If you return equipment for repair, please be sure to follow the procedures given below. Be sure to enclose a completed Problem Report with the returned equipment.

---

* * * HOW TO RETURN EQUIPMENT FOR REPAIR * * *

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Then it is time to let us help. We have yet to find a sick unit that cannot be restored to full health and vigor.

There are a few things you can do that will help us expedite your repair:

1. Write or call for return authorization before returning any merchandise. RETURNS WITHOUT AUTHORIZATION WILL BE REFUSED.
2. Copy the blank Problem Report, fill in the copy, and return the unit for repair.

   ***** NOTE *****

   Questions that do not relate to the reason the unit is being returned for repair must be sent in under separate cover.
3. OUT-OF-WARRANTY repairs are performed for a labor charge, parts and shipping. If we find that a unit is functioning properly as received and does not require any service, there will be a CHECKOUT CHARGE plus return shipping and insurance. Do not enclose any payment. The unit will be returned C.O.D. for authorized repairs and shipping.
4. When returning a unit for repair, pack it in a large carton with at least 3" of padding on all sides. We will not attempt to service any unit if there is shipping damage until the claim is settled (a real hassle). Ship prepaid by UPS or INSURED PARCEL POST to the Service Department. The address of the Service Department is given on page iii, the Full Title Page.

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* * * HOW TO ORDER MERCHANDISE BY MAIL * * *

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TOLL-FREE PHONE ORDERS: To save you money and insure prompt service, we've installed a toll-free number (see page iii, Full Title Page) FOR PLACING ORDERS ONLY. We cannot transfer calls received on our toll-free number to other departments — please help us serve you better by dialing the correct number.

PROMPT SERVICE: We ship the cheapest, fastest way. We use UPS up to 50 lbs. per item, 100 lbs. per shipment. We use truck-freight for large or heavy shipments. Transportation charges collected on delivery.

COD ORDERS: COD orders are accepted where possible.

OPEN ACCOUNT TERMS: Net 10 days to rated firms.

TEXAS SALES TAX: Texas law requires that we collect 5% sales tax on all shipments in Texas.

MINIMUM ORDERS: We will add a handling charge of $2.00 to all orders totaling less than $15.00.

DAMAGED SHIPMENTS: Have carrier note if received in damaged condition, then file claim. About concealed damage: contact carrier for inspection, then file claim. Save the shipping carton.

PERCOM DATA
CORPORATION
11220 Pagemill Road, Dallas, Texas 75243

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