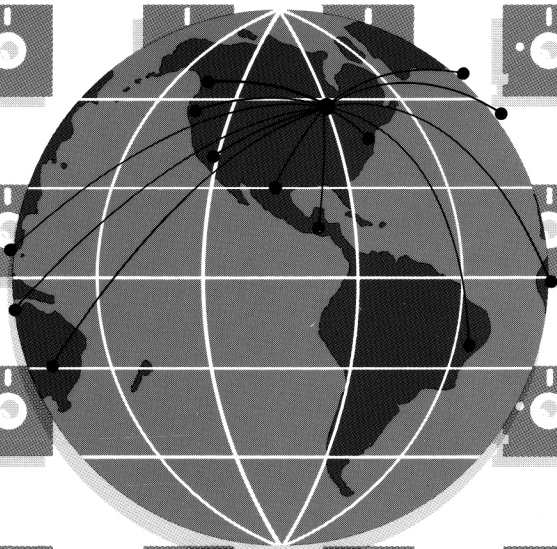


Home ConnectionTM



Home ConnectionTM

by William R. Shaw and David Winzler

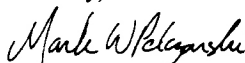
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Chapter 1

An Introduction

The Home Connection software, in conjunction with a modem, provides an intellectual connection between one computer and another. The physical connection between the two computers is provided by a telephone line. **The Home Connection**, the software connection between the computers, makes it very easy to transfer information over the phone line.

The Home Connection is designed for use with the Hayes Micromodem, or modems that work with the Apple Super Serial Card or the Apple Communications Card, or other compatible serial interfaces (including those in the Apple //c).

There are two types of data communication: conversations and file transfers. In a conversation, the characters you type on your keyboard are sent to the other computer, and characters it sends back are displayed on your screen. The characters coming from the other computer could have been typed by someone, or they might have come from a program running on the other computer. The key ingredient to this 'conversation' is the two-way flow of information, as in a human conversation.

The second type of communication, file transfer, allows files to be sent from one computer to another. File transfer is actually a fancy file copy; a file in California can be copied to a disk in Maine in just a few minutes. The file might contain just about anything: a letter, a data file, a spreadsheet template, a picture, or a program.

The Home Connection makes it very easy to do all the above. It provides a number of features which turn your Apple into a powerful and very intelligent communications device.

This manual is divided into two sections: Procedures and Reference. The Procedures Section (chapters 2-5) describes how to use **The Home Connection**, and contains detailed step-by-step instructions to help get you started. It is meant for those people who want to get **The Home Connection** up and running as quickly as possible. The Reference Section (chapter 6) goes into much more detail, and describes each and every part of **The Home Connection**. It should be read by anyone who wishes to use **The Home Connection** as effectively as possible.

We hope that this software serves you well. If you haven't done so already, please mail in your registration card so we can provide you with technical support, as well as keep you informed of future enhancements and updates.

Backup Copies

The entire **The Home Connection** disk may be copied with any standard copy program. (See your DOS manual for further information about making backup copies). You must use a backup copy in your work instead of the original. Also, if anything should happen to your backup, you can always make another copy. Be sure to keep your master in a safe place.

To prevent accidental erasure, the master is on a disk that has no notch on the side. When a disk has no notch, or the notch is covered with a tab, the disk drive will not try to store information on the disk — what is called "writing to the disk," hence the name write-protect notch.

You must copy your master disk onto a disk which has a write-protect notch in it. Some parts of this program require certain information to be stored on (written to) the master backup disk. Throughout this manual, when we refer to your master disk, we are talking about the backup of the master you are working with.

How To Use The Home Connection

MOVING THROUGH MENUS: **The Home Connection** was designed to be used by non-typists. When interacting with **The Home Connection**, you usually need only three keys: the **right and left arrow** keys, and **RETURN**. These three keys are used to select options from each of **The Home Connection's** menu screens (which list your choices, much like a menu in a restaurant). You use the arrow keys to move up and down through the list, and the **RETURN** key is used to select an item.

When you first load **The Home Connection**, the Title screen is displayed. When you press the **RETURN** key, the **The Home Connection's** Main Options menu will be displayed. The cursor is on the first entry in the menu (Converse). If you press **RETURN** at this point, you enter **The Home Connection's** Converse menu. If you press the **right arrow** or **down arrow** key, you move downward through the list of options; press it once and the cursor will be on second option (Transmit/Receive). The **left arrow** or **up arrow** key is used to go backward (move up) through the list. To select a particular option, use the arrow keys to point at the option, then press **RETURN**.

ABOUT CURSORS: At various points in this manual, we will refer to the 'cursor.' The cursor is simply a pointing device, and is used to direct your attention to a particular part of the screen. If you're selecting options from a menu, the cursor will be a pointer (→). **The Home Connection** also uses two other types of cursors: a small flashing square or checkerboard character (used when entering information into **The Home Connection**) and a flashing underscore (used in Conversation mode).

ABOUT ENTERING INFORMATION INTO The Home Connection: Occasionally, **The Home Connection** will ask you to type in a number or a word; when you wish to load a file, for instance, **The Home Connection** will ask you to type in the name of the file. When it does, you will be presented with a small flashing cursor. When you press a key, that character appears on the screen, and the cursor moves to the right. As long as the cursor is there, **The Home Connection** is waiting for you to type more. When you've entered the entire word (or number or phrase), press the **RETURN** key. For example, when you're asked to enter a phone number, you would type in the appropriate characters followed by **RETURN**: 8 7 2 - 0 9 1 7 and then **RETURN**. In general, if **The Home Connection** is sitting there and a cursor is blinking at you, it's waiting for you to type more characters, or press **RETURN**.

Chapter 2

Configuration

Setting Up The Home Connection For Your System

Before you can start using **The Home Connection**, it's necessary to let it know what hardware you have (this is known as 'configuring' the program). After **The Home Connection** has been configured, it will know what type of serial card or modem you have, what slot or port it's in, what slot or port your printer is in, and how many disk drives you have. **The Home Connection** will then be customized for your particular machine, and will be able to use it every time without re-configuring. The following step by step procedure will walk you through the configuration...

- 1) Boot the **The Home Connection** disk, like you would any other disk.
- 2) **The Home Connection's** title screen will be displayed. Press the **space bar** to see **The Home Connection's** 'Main Options' screen.
- 3) (from Main Options) Press the **right or down arrow** key several times to move the cursor to the 'Configure' selection, then press **RETURN**. Remember, the **right or down arrow** moves the cursor forward through the list (down), the **left or up arrow** key is used to move it backward (up), and the **RETURN** key is used to make the selection. You will now be in Configure Menu, where you can set up **The Home Connection** to fit your hardware and your own preferences.

Configuring Modem/Serial Card

- 4) (from Configure Menu) Use the arrow keys to move the cursor to the 'Select Comm Slot' entry, then press **RETURN**. Enter the slot or port number (1 thru 7, usually slot/port 2 is used for communications) which contains your communications interface, then press **RETURN**. With an Apple //c, choose port 2.
- 5) (from Configure Menu) Use the arrow keys to select 'Serial Card Specification,' then press **RETURN**. Use the arrow keys to select which communications card you have. Depending on the particular card, you may or may not be asked several questions about your hardware. For now, select the first item in each menu displayed to get a standard 300 baud setup. If this doesn't work, you will probably need to refer to the manual which came with your serial card, or have your dealer configure this part of **The Home Connection** for you.

Configuring Disk Drives

- 6) (from Configure Menu) Select 'Configure Disk.' If you have one drive, select slot 6 (or whichever slot your disk drive is in) and drive 1. If you have two drives, you should indicate which slot the second drive is in, as well as whether it is drive 1 or drive 2. For a standard two drive system, the data disk will be in slot 6, drive 2. On a two drive system, then, the **The Home Connection** disk will remain in drive 1, and your data disk will remain in drive 2, eliminating the need for disk swapping.

Configuring the Printer

7) (from Configure Menu) If you have a printer, select 'Configure Printer Slot.' Enter the slot/port number of your printer (usually 1) and press **RETURN**. When prompted to enter the width, type in the number of characters your printer can fit on a line (usually 80) and press **RETURN**. When prompted for the setup string, enter the setup characters needed by your printer or its interface card, and press **RETURN**.

PARALLEL INTERFACE: Most interface cards will work with the following setup string: Control -I 80N (hold down **CONTROL** and press **I**, then type **80N**; don't type in any spaces). If you're not sure which setup string to use, have your dealer setup this section for you.

APPLE SUPER SERIAL CARD, or APPLE //c: If you have an Apple Super Serial Card or an Apple //c, use the following setup string: Control-I CN (hold down **CONTROL** and press **I**, then type **CN**; no spaces). Without this setup string, your printer may print lines on top of each other.

Configuring the Screen

8) (from Configure Menu) Select 'Configure Screen.' The Configure Screen Menu will be displayed, indicating three choices: Apple 40 column, Videx 80 column, or Apple //e 80 column.

9) (from Configure Screen) Select the appropriate screen type. If you select Apple 40 column, you will be asked if you want to enable or disable lower case display. If your Apple can display lower case characters, select 'Enable Lower Case Display.' You can use this option if you have an Apple //e, or you have an Apple II with a lower case adapter. With an Apple //c, use either 40 column (if you are using a TV or color monitor) or Apple //e 80 column (if you can display and read 80 column text on your monitor).

Configuring for Shift Key Mod (older Apples)

10) (from Configure Menu) If you have an Apple II with a 'shift key mod' installed, select 'Set Shift Key Mod', then select 'Enable Shift Key Mod,' and **The Home Connection** will use it. If you switch to an unmodified Apple II keyboard, or an Apple //e, make sure you 'Disable Shift Key Mod,' or everything you type will appear in lower case!

Saving the Configuration to Disk

NOTE: If you have a single drive system, **The Home Connection** will ask you to swap disks several times in steps 11-13. Because you are saving the configuration to your **The Home Connection** disk, you can ignore each of these messages, and simply press **RETURN**.

11) (from Configure Options) Select 'Main Options', then (from Main Options) select 'Disk Access.'

12) (from Disk Access) Select 'Save Configuration to **The Home Connection** Disk'. The new configuration will then be saved onto your **The Home Connection** disk, so you won't have to enter it again.

13) (from Disk Access) Select 'Main Options' to return to the main menu.

There! You have now configured **The Home Connection** to your system. Since the configuration is saved on the **The Home Connection** disk, you can turn the machine off if you wish, knowing that the next time you boot up you won't have to go through configuration all over again.

Chapter 3

Conversing with Converse

This section contains procedures for dialing up and conversing with a bulletin board system (BBS), a network such as **The Source** or **Compuserve** (with proper sign-ons), an electronic mail source such as **MCI Mail**, or to someone on another computer.

Your dealer should be able to provide you with a list of free bulletin board systems. Different BBS's around the country (indeed, the world!) serve as centers for exchanging information and messages with other people, via computer. On most BBS's you can leave messages, post notices, ads and questions, as well as read those which other people have posted. When talking with a BBS, keep in mind that you're really talking with a program. It will probably only understand single letter commands (such as M to read or send mail). Most BBS's recognize the letter 'H' or the symbol '?' as a help or distress signal, and will display a list of the commands available.

At any rate, no matter if you're calling a bulletin board system, a friend's Apple, or your friendly neighborhood IBM timesharing system, here's the procedure for dialing the phone and establishing a connection. You'll notice there are really two procedures, one for autodial modems such as the Apple Modem, Password Modem, and Hayes Micromodem (which can dial the phone all by itself) and one for other serial modems (which require you to dial the number for them). Most modems on the market today are of the first variety.

Converse Procedure #1

Dial up with an Autodial Modem

- 1) From the 'Main Options' screen, select 'Converse.'
- 2) (from Converse Menu) Select 'Dial.'
- 3) (from Dial) Select 'New', then enter the phone number you wish to dial and press **RETURN**.
- 4) (from Dial) The computer will display a "dialing" or "waiting for carrier" message while it dials the number. If it is able to connect to the other computer, it will display a "connected," and you will find yourself in Conversation mode. While you're in Conversation mode, everything you type will be sent to the other computer, and everything it sends back to you will be displayed on the screen. To get out of Conversation mode and back to the Converse Menu, press **CONTROL-O** (hold down the **CONTROL** key then press **O**). This is the **The Home Connection** Attention key; it will immediately get **The Home Connection's** attention and return you to the Converse Menu.

Converse Procedure #2

Dialing up without an Autodial Modem

This procedure should be used if you have a serial card/port connected to an acoustic coupler, or a modem that does not dial by itself.

- 1) From the 'Main Options' screen, select 'Converse.'
- 2) (from Converse Menu) Select 'Pick Up.' If you have a modem with a switch labelled 'Talk' or 'Voice', put the switch in that position so you can dial the phone.
- 3) Pick up the phone and dial the number you wish to connect to. When the other end picks up, wait for the high-pitched tone of their modem, then put the mode switch in the 'Originate' position. If the modem/coupler does not have a switch labelled 'Originate/ Answer,' it's probably an Originate Only device, so you should be all set). If the other end is doing things right, they will be in 'Answer' mode. NOTE: The Originate and Answer modes are complementary. In order for a connection to be made, one party must be in Originate mode and the other in Answer. As a general rule, the computer placing the call should Originate, and the other computer should Answer. Since you're the one calling, start with Originate. If that doesn't work, try Answer.
- 4) (from Converse Menu) When the two modems recognize each other, they will connect, and **The Home Connection** will go right into Converse mode (Step 5).
- 4A) (problems connecting?) If **The Home Connection** doesn't go into conversation mode, then it's having problems trying to connect with the other computer. Depending on the problem, an error message may be displayed, or the computer may just sit there waiting for a connection. First, make sure your modem is connected to the wall phone jack. Next, go back and check that the configuration is for the correct port/slot and the proper modem and serial interface (to check this, go back to Configure, and select 'Show Configuration'). If that checks out, make sure you are dialing the right number, that you hear the other modem's beep at the other end, and that you are in 'originate' mode. As a last resort, your dealer should be able to help you get things working.
- 5) If all goes well, you will find yourself in Conversation mode. While in conversation mode, everything you type will be sent to the other computer, and everything it sends back will be displayed on your screen. To get out of conversation mode and back to the Converse Menu, press **CONTROL-O** (hold down **CONTROL** and press **O**). This is **The Home Connection's** Attention Key; it will immediately get **The Home Connection's** attention and return you to the Converse Menu.

Converse Procedure #3

Determining Duplex

Full-duplex and half-duplex refer to two conventions used when data is transmitted. When you are in Conversation mode, and your Apple is in 'half duplex,' any characters typed on your keyboard are immediately displayed on the screen, and are sent to the other computer at the same time. In full-duplex, the characters you type are first sent to the other computer, which then sends them back to you. Then they are displayed on the screen.

In order for things to go smoothly, both computers must be in the same duplex (either both in full or both in half). Let's see what happens when they're not.

SCENARIO #1 (FULL TALKS TO HALF): Let's say you're talking to a BBS; your Apple is in full duplex, while the BBS is in half. When you type a character, it isn't displayed on the screen (since you're waiting for the BBS to send the character back to you). Because the BBS is in half duplex, it will not send the character back; the end result is that you can't see what you type.

SCENARIO #2 (HALF TALKS TO FULL): This time, your Apple is in half duplex, while the BBS is in full. You type a character, which is immediately displayed on the screen. The character is sent to the BBS, which (being in full duplex) then echoes the character back to you. When the Apple receives the character, it displays it on the screen (again). The end result here is that each character you type appears on the screen twice.

THE MORAL: If you're connected to another computer, and you can't see what you're typing, switch to half duplex. If everything you type is echoed twice, you should be in full duplex. It's as easy as that!

Converse Procedure #4

Hanging Up

Contrary to what you might think, the best way to hang up is not to put the phone back on the hook. That method takes care of only the hardware, not the software.

There is an option on the Converse menu to 'Hang Up,' which tells **The Home Connection** to break the connection.

1A) If you are talking to someone in Conversation mode, you will need to get back to the Converse Menu. Press the Attention Key, **CONTROL-O**. This will return you to the Converse menu.

1B) If you are elsewhere in **The Home Connection** (the Transmit/Receive Menu, for example), select 'Main Options' to get back to that menu, then select 'Converse' to get to the Converse menu.

2) (from Converse Menu) Select the 'Hang Up' option. You will be asked if you are sure you want to hang up (so you won't hang up accidentally). Press the **Y** key because you're sure, and the **The Home Connection** software will disconnect itself from the modem, and return to the Converse menu.

3A) (serial card with modem or acoustic coupler) If your modem has a DATA/VOICE switch, move it to the VOICE position, then hang up the phone. If you have an acoustic coupler, remove the handset from the coupler and hang it up.

3B) (autodial modems) Since the autodial modems can usually hang up the phone by themselves, no further action is required.

Chapter 4

Capturing the Conversation

Now you know how to connect to another computer, and how to converse with the person or program at the other end. This opens up all sorts of fascinating possibilities. Sooner or later, you'll want to record a conversation for future reference. **The Home Connection** offers you three different ways of keeping a conversation. The first way is quite simple, but it requires a printer (and **The Home Connection** has to be configured to use it: see the 'Configuration' section). This method simply takes a 'snapshot' of the screen, and prints it on the printer. This has the advantage of printing out only what appears on the screen. (NOTE: Before **The Home Connection** starts printing, it automatically sends a 'stop transmitting' signal (CTRL-S) to the other computer. This tells the other computer to hold up for a bit. When it's done printing, **The Home Connection** will send a 'start transmitting' signal (CTRL-Q) to the other computer, which tells it to continue).

The Home Connection also allows you to record an entire conversation by storing it away in your Apple's memory. Because this memory is used to buffer text, it is referred to as the Text Buffer. Once a conversation is in the Text Buffer, you can edit it, review it on the screen, print it out on the printer, save it as a disk file, or you can delete it from memory and forget all about it.

The Home Connection has a very large Text buffer, over 40K worth (this is over twice the size of many communications programs). If the buffer should get full, you can simply save its current contents to a disk file, then continue with the conversation (it will take about 45 seconds to save a full buffer).

Capture Procedure #1

Turning on the Text Trap

- 1) (from within Conversation Mode) Press the **The Home Connection** Attention key, (**Control-O**), to return to the Converse menu.
- 2) (from the Converse Menu) Select 'Trap On.'
- 3) (from the Converse Menu) Select 'Conversation' to get back into Conversation mode.

Capture Procedure #2

Turning Off the Text Trap

- 1) (from within Conversation Mode) Press the **The Home Connection** Attention key, (**Control-O**), to return to the Converse menu.
- 2) (from the Converse Menu) Select 'Trap Off.'
- 3) (from the Converse Menu) Select 'Conversation' to get back into Conversation mode.

Capture Procedure #3

Viewing the Text Buffer

1A) (from within Conversation Mode) Press the **The Home Connection** Attention key, (**Control-O**), to return to the Converse menu.

1B) (from elsewhere in **The Home Connection**) Get back to the Main Options menu and select 'Converse.'

2) (from Converse Menu) Select 'View Buffer.' The contents of the buffer will begin appearing slowly, one word at a time.

3) (from View Buffer) While viewing the buffer, four keys have special meaning: **F**, **S**, **SPACE**, and **Shift-Control-@**.

F is for Fast display, useful for scanning quickly through the buffer.

S is for Slow display (this is how View starts up).

SPACE is used to freeze the display. Press **SPACE** again to start it up again.

Shift-Control-@ is used to get a snapshot printout of the screen.

Control-O is used to quit early, before reaching the end of the buffer.

4) (from View Buffer) When the end of the buffer is reached (or if you press the **The Home Connection** Attention key), **The Home Connection** will ask you to press a key, and you will be returned to the Converse menu.

Capture Procedure #4

Printing the Text Buffer

This procedure prints the contents of the Text Buffer on your printer. This is useful for getting a hard copy of a conversation, but you can also use it to print out small to medium sized text files.

Before you can print the buffer, **The Home Connection** must be configured to use your printer (see the section on 'Configuring **The Home Connection**' if you haven't already done this).

1) (from any menu) Return to the Main Options screen. NOTE: If you wish to load a file into the text buffer, now is the time to do it. Follow Capture Procedure #5: Loading a File into the Text Buffer.

2) (from Main Options) Select 'Print Buffer.' The contents of the Text Buffer will then be printed.

Capture Procedure #5

Loading a File into the Text Buffer

1) (from any menu) Get back to Main Options.

2) (from Main Options) Select 'Disk Access.' (If you have a single drive system, you will be prompted to insert your data disk).

3) (from Disk Access Menu) Select 'Load Buffer.'

4) (catalog of data disk is displayed). If the catalog is long, the display will pause until you press **SPACE** or **Control-O**. At the end of the catalog, **The Home Connection** will ask for the name of the file to be loaded into the text buffer; enter the file name and press **RETURN**. **The Home Connection** will then load the file into memory. If the file is not a Text file, **The Home Connection** will display a warning message, but allow you to load it.

5) (from Disk Access Menu) Select 'Main Options.'

Capture Procedure #6

Saving the Text Buffer to disk

1) (from any menu) Return to 'Main Options.'

2) (from Main Options) Select 'Disk Access.' (If you have a single drive system, you will be prompted to insert your data disk).

3) (from Disk Access Menu) Select 'Save Buffer.'

4) (catalog is displayed) Enter the file name you wish to save. If no file by that name exists, a new one will be created. If a file by that name already exists, it will be deleted, and a new file will be created.

5) (from Disk Access Menu) Select 'Main Options.' (If you have a single drive system, you will be prompted to insert the **The Home Connection** Disk.

Capture Procedure #7

Printing a snapshot of the screen

Any **Home Connection** screen (whether it contains a menu, a conversation, or the contents of the Buffer) can be printed to your printer. Since nothing else will be going on while it is printing, your end of the conversation will lapse (briefly) if you do this while in Conversation mode.

1) (from any place in **The Home Connection**) Press **Shift-Control-@**, and the screen will be printed on the printer.

2) Continue with what you were doing...

Chapter 5

Transmitting and Receiving Files

The Home Connection has three means of transmitting files to another computer: in BTRAN Format, in ASCII Converted Hex format, and out of the Text Buffer. There are two ways of receiving files: in **BTRAN** format, or into the Text Buffer. BTRAN Format is a fast and reliable method of sending any type of file, but it can only be used with software which supports it (such as **The Home Connection**, **BTRAN**, and **Netmaster**, for instance). The other methods can be used to send files to just about any computer, but they aren't quite as fast and reliable as the first. Each of these methods is detailed in the following procedures.

Tranceive Procedure #1

Transmitting to The Home Connection

This procedure is used to transmit a file in BTRAN format. This method is very reliable. It can only be used when transmitting to a computer which can receive a BTRAN format transmission (with **The Home Connection**, **BTRAN**, or **Netmaster**).

- 1) Use Converse Procedure #1 or #2 to establish a phone connection. This will leave you in Conversation mode.
- 2) (from Conversation mode) At this point, you will probably want to exchange a few comments with the person at the other end, and inform them which file(s) you intend to transmit.
- 3) (from Conversation mode) When you're ready to transmit, you should both leave Conversation mode using the **The Home Connection** Attention key, (**Control-O**). This will return you to the Converse Menu.
- 4) (from Converse Menu) Select 'Main Options.'
- 5) (from Main Options) Select 'Transmit/Receive.'
- 6) (from Transmit/Receive Menu) Select 'Transmit to **The Home Connection**.
(NOTE: If you have a single drive system, you will be asked to insert your data disk in the drive).
- 7) (from Transmit to **The Home Connection**) The catalog of the data disk will be displayed on the screen (if more files are in the catalog than can be displayed at one time, you should press a key to advance through the catalog, or **Control-O** to abort it). When prompted to, type in the name of the file you wish to transmit (don't forget to press **RETURN** at the end of the name).
- 8) (from Transmit to **The Home Connection**) **The Home Connection** will begin transmitting the file. If the other computer is ready to receive (which it should be), it will send back an acknowledgement when it starts receiving the file.
- 9) (from Transmit to **The Home Connection**) After the entire file has been transmitted, **The Home Connection** will display a message to that effect, and will return you to the Transmit/Receive Menu.

9A) (from Transmit/Receive Menu) If you wish to transmit more files, you should repeat this procedure, starting with step 6.

10) (from Transmit/Receive Menu) To break the connection, use Converse Procedure #4.

Transceive Procedure #2

Receiving from The Home Connection

This procedure is the complement of Transceive Procedure #1. It is used to receive a file transmitted in BTRAN format. It can only be used to receive a file in that format.

1) Use Converse Procedure #1 or #2 to establish a phone connection. This will leave you in Conversation mode.

2) (from Conversation mode) You should both leave Conversation mode at the same time, using the **The Home Connection** Attention Key: **Control-O**. This will return you to the Converse Menu.

3) (from Converse Menu) Select 'Main Options.'

4) (from Main Options) Select 'Transmit/Receive.'

5) (from Transmit/Receive Menu) Select 'Receive from **The Home Connection**.'

(NOTE: If you have a single drive system, you will be asked to insert your data disk in the drive).

6) (from Receive from **The Home Connection**) As soon as the file starts coming in, **The Home Connection** will display it on the screen. It then sends back an acknowledgement to the transmitting computer, telling it to either go ahead (::GG::) or to transmit the last section again (::R::). This will continue until the entire file has been received.

7) (from Receive from **The Home Connection**) When the file has been received, **The Home Connection** will return to the Transmit/Receive Menu.

7A) (from Transmit/Receive Menu) If you wish to receive more files, you should repeat this procedure, starting with step 5.

8) (from Transmit/Receive Menu) To break the connection, use Converse Procedure #4.

Transceive Procedure #3

Transmitting the Text Buffer

This method can only be used to transmit Text files (such as sequential data files, spreadsheet templates, programs listed to a text file, etc.). This procedure does not offer the error checking and correction of Procedure #1, but it can be used to transmit files to just about any computer. The text file to be transmitted is first loaded into the Text Buffer (steps 4-7 below). The contents of that buffer are then sent verbatim to the other computer.

The other computer will receive the file into its Text Buffer (the Text Trap must be on). From there, it can be printed, saved to a disk file, or viewed on their screen.

1) Use Converse Procedure #1 or #2 to establish a phone conversation with the other computer. This will leave you in Conversation mode, where you can chat with the person on the other end. Inform the person that they should stay in Conversation mode (with the Text Trap on), and in a moment or so you will begin transmitting the file.

2) (from Conversation mode) Press the **The Home Connection** Attention key, **Control-O**, to get back to the Converse Menu.

3) (from Converse Menu) Select 'Main Options.'

4) (from Main Options) Select 'Disk Access.' (NOTE: on a single drive system you will be prompted to insert your data disk).

5) (from Disk Access Menu) Select 'Load Text Buffer.'

6) (from Load Text Buffer) The catalog of the data disk will be displayed. Enter the name of the Text file (file type 'T') that you wish to transmit and press **RETURN**. When asked if you want to clobber the buffer (erase what's in the buffer), or append to it (add the file to the end of what's in the buffer), select 'Clobber.' The file will then be loaded into the Text Buffer, and you will be returned to the Disk Access Menu.

7) (from the Disk Access Menu) Select 'Main Options.' (NOTE: on a single drive system, you will be prompted to insert the **The Home Connection** disk).

8) (from Main Options) Select 'Transmit/Receive.'

9) (from Transmit/Receive Menu) Select 'Transmit Text Buffer.' The contents of the buffer will be sent to the other computer (and will also be displayed on your screen). After the buffer has been transmitted, you will be returned to the Transmit/Receive menu.

10) (from Transmit/Receive Menu) Select 'Conversation' to get back into Conversation mode. Continue your conversation with the other person.

11) To break the connection, use Converse Procedure #4.

NOTE: To save phone time, you may wish to load the file into the Text Buffer before you establish a phone connection. If you do this, you should make sure that the Text Trap is off, so your conversation will not be appended to the end of the buffer.

Transceive Procedure #4

Transmitting Disk Files

This procedure is used to transmit a file in ASCII converted hex format. This method does not have the error detection of BTRAN format, but it can be used to send a file to just about any computer. It also involves a little more work on the receiving end than transmitting the contents of the Text Buffer, but it can be used to transmit any type of file, not just text files. It is up to the receiving computer to make sense out of the data it receives. (For a detailed description of this format, see Appendix 4).

1) Use Converse Procedure #1 or #2 to connect with the other computer. This will leave you in Conversation mode.

- 2) (from Conversation mode) At this point, you will usually exchange a few comments with the person at the other end, informing them which file(s) you are about to transmit.
- 3) (from Conversation mode) Use the **The Home Connection** Attention key, **Control-O**, to get back to the Converse Menu.
- 4) (from Converse Menu) Select 'Main Options.'
- 5) (from Main Options) Select 'Transmit/Receive.'
- 6) (from Transmit/Receive Menu) Select 'Transmit Disk File.' (NOTE: If you have a single drive system, you will be asked to insert the data disk in the drive).
- 7) (from Transmit Disk File) The catalog of the data disk will be displayed on the screen (if more files are in the catalog than can be displayed at one time, you should press the **RETURN** key to advance through the catalog). Enter the name of the file you wish to transmit, then press **RETURN**.
- 8) **The Home Connection** will find your file and begin transmitting it.
- 9) When the entire file has been transmitted, **The Home Connection** will return to the Transmit/Receive Menu. If you wish to transmit more files, repeat this procedure, starting with step 6.
- 10) (from Transmit/Receive Menu) Select 'Main Options.'
- 11) (from Main Options Menu) Select 'Converse.'
- 12) (from Converse Menu) Select 'Conversation.' Continue conversing with the person on the other end.
- 13) (from Conversation Mode) To break the connection, use Converse Procedure #4.

Chapter 6

Reference Section

A. The Main Options List

The Main Options List is the hub of **The Home Connection**. When switching from one activity to another (Converse to Transmit/Receive, for example), you will always pass through the Main Options List. As such, it is the Grand Central Station of **The Home Connection**.

- I. Converse
- II. Enter Editor
- III. Transmit/Receive
- IV. Print Buffer
- V. Disk Access
- VI. Configure
- VII. Exit **The Home Connection**
- VIII. Help

Converse

FUNCTION: Establish phone connection, enter Conversation mode, turn Text Trap on and off.

DESCRIPTION: Converse is the heart of **The Home Connection**. It is used to both establish and break the phone connection. Once a connection is established, Converse automatically enters Conversation mode; what you type is transmitted over the phone, and what is received is displayed on your monitor, resulting in a two-way conversation between you and whoever or whatever is on the other end of the line. Conversation mode is primarily used to talk with computer timesharing systems (such as **The Source**) or any of the various Bulletin Board Systems (BBS's). If the Text Trap is turned on, these conversations will be recorded in the Apple's memory, and can later be viewed, printed, or saved to a disk file. While in Conversation mode, outgoing characters are translated using the Transmit Translate Table (see 'Configuration: Transmit Translate Table'), and incoming characters are translated using the Receive Translate Table ('see Configuration: Receive Translate Table'). Keyboard Macros can also be used while in Conversation mode.

USE: From the Main Options list, select 'Converse.' See the section on the 'Converse Menu' for further details.

Enter Editor

FUNCTION: Edit the contents of the Text Buffer, using the **The Home Connection** screen editor.

DESCRIPTION: After text has been loaded (or captured) into the Text Buffer, there are often occasions when you wish to change or add to that text. For your convenience, **The Home Connection** contains its own editor which allows you to modify the contents of the Text Buffer without having to run a separate text editor.

Although it's a 'mini-editor,' **The Home Connection's** editor provides many of the basic features found in more elaborate editors, including search, word-wrap, and a typeahead buffer. It was designed to be both easy to use and easy to remember (and of course a help screen is always available when you're in the editor).

USE: From the Main Options list, select 'Enter Editor.' See the section on the '**The Home Connection Editor**' for further details.

Transmit/Receive

FUNCTION: Transmit and receive files.

DESCRIPTION: Once a phone connection is established, the Transmit/Receive section of **The Home Connection** can be used to transmit the contents of a disk file (or the contents of the Text Buffer) over the phone line. Unlike other communications programs, **The Home Connection** is able to transmit any type of file, including program files, without having you first convert them into text files. If you are talking to another Apple using **The Home Connection**, you may transmit files in a special format which allows for fast and error-free file transmissions.

USE: Once a phone connection is established (see 'The Converse Menu'), return to Main Options and select 'Transmit/Receive.' Refer to 'The Transmit/Receive Menu' for further details.

Print Buffer

FUNCTION: Print the contents of the Text Buffer to the printer.

DESCRIPTION: This option will print the contents of the Text Buffer. Before it can be used, **The Home Connection** must be configured to use the printer (see the section on 'The Configure Menu: Configure Printer').

USE: Select 'Print Buffer' from the Main Options list. The contents of the buffer will be sent to the printer, and **The Home Connection** will return to the Main Options list.

NOTES: Text can be loaded into the Text Buffer in three different ways: by receiving into (Conversation Mode), creating it yourself (**The Home Connection Editor**), or by loading a file from disk (Disk Access).

Disk Access

FUNCTION: Display catalog of the data disk, load and save contents of Text Buffer, load and save **The Home Connection's** current configuration.

DESCRIPTION: Disk Access provides access to your data disk. It is mainly used to load and save the contents of the Text Buffer. It can also be used to save the current configuration to either the **The Home Connection** disk (where it becomes the bootup configuration), or to a file on your data disk. In the latter case, you might keep several different configurations on a disk, loading each into memory as it's needed.

USE: From Main Options, select 'Disk Access.' Refer to 'The Disk Access Menu' for more details.

Configure

FUNCTION: Define devices, device slots, keyboard macros, character conversion tables, phone numbers, printer parameters, etc.

DESCRIPTION: Because there are so many devices which could be plugged into your Apple, **The Home Connection** needs to be told what's where. This allows for a lot of flexibility. **The Home Connection** supports the use of a Micromodem, Apple Comm Card, Apple Super Serial Card, Networker Modem, or any 6850- or 6551-based serial card, and gives the access to just about all the functions available on each. **The Home Connection** also allows you to define Transmit and Receive Translate Tables; these two tables are used while in Conversation mode (see 'The Converse Menu') and converts all characters sent and received. These allow you to convert lowercase to uppercase, or convert ASCII or EBCDIC (and back), or convert extraneous linefeeds to spaces (to eliminate double spacing). Keyboard macros can be defined to save typing time; you might define Control-L to be an abbreviation for the word 'LOGIN,' so every time you press Control-L, **The Home Connection** will display and transmit 'LOGIN.' Configure is also used to define where the user Data Drive is, various things about your printer, what keys you want to use for various functions, etc.

USE: From the Main Options list, select 'Configure.' Refer to 'The Configure Menu' for more details.

Exit The Home Connection

FUNCTION: Exits to BASIC.

USE: From the Main Options list, select 'Exit **The Home Connection**.' When asked 'Are you sure?', press **Y** to leave **The Home Connection** and enter BASIC. Press **N** if you really don't want to quit.

B. THE CONFIGURE MENU

The Configure section is used to customize **The Home Connection** to your particular computer's setup. Configure lets you assign various hardware and software options:

- Comm card slot and type
- Printer slot, width and setup string
- Disk drive slot and drive number
- Carriage return delay
- Command keys: **The Home Connection** attention and Print Screen keys
- Translation tables for Transmit and Receive
- Control Key Macro Table

Once **The Home Connection** has been configured, the new configuration can be saved to the **The Home Connection** disk (becoming **The Home Connection's** bootstrap configuration), or saved to your data disk.

- A. Options
- B. Show Configuration
- C. Select Comm. Slot

- D. Serial Card Specification
 - 1. Exit to Configure
 - 2. Micromodem
 - 3. Super Serial Card
 - 4. Networker/Comm Card
 - 5. Generic 6850
 - 6. Generic 6551
- E. Phone Numbers
- F. Transmit Translate Table
 - 1. Exit to Configure
 - 2. Display Transmit Table
 - 3. Modify Transmit Table
 - 4. Clear Transmit Table
 - a. Clear to UPPER CASE
 - b. Clear to Mixed Case
 - c. Clear Straight Through
- G. Receive Translate Table
 - 1. Exit to Configure
 - 2. Display Receive Table
 - 3. Modify Receive Table
 - 4. Clear Receive Table
 - a. Clear to UPPER CASE
 - b. Clear to Mixed Case
 - c. Clear Straight Through
- H. Control Key Macros
- I. Carriage Return Delay
- J. Configure Disk
 - 1. Select User Disk Slot
 - 2. Select User Disk Drive
- K. Configure Printer
 - 1. Select Printer Slot
 - 2. Select Printer Width
 - 3. Select Printer Setup
- L. Configure Screen
 - 1. 40 col.
 - 2. Videx 80 col.
 - 3. //e or //c 80 col
- M. Configure THC Control Chars (**The Home Connection**)
 - 1. THC Attention Key
 - 2. Print Screen Key
 - 3. Start Character
 - 4. Stop Character
- N. Set Shift Key Mod
 - 1. Enable Shift Key Mod
 - 2. Disable Shift Key Mod
- O. Help

Main Options

FUNCTION: Returns to Main Options Menu.

Show Configuration

FUNCTION: Display the current hardware and software configuration.

DESCRIPTION: The following screens are displayed:

- Serial Card Configuration
- Screen/Keyboard Configuration
- Printer/User Disk
- Macros
- Phone Numbers
- Receive Translate Table (4 screens)
- Transmit Translate Table (4 screens)

USE: From the Configure Menu, select 'Show Configuration.' To advance through the Show Configuration screens, press the **SPACE** bar. To cancel and return to the Configuration Menu, press the **The Home Connection** Attention Key, **Control-O**. To dump any screen to the printer, press the Print Screen Key: **Shift-Control-@**.

Select Communications Slot

FUNCTION: Display and/or modify the slot number of your communications card (serial card or modem card).

DESCRIPTION: **The Home Connection** needs to know which slot contains your communications card; this option is used to select that slot.

USE: From the Configure Menu, select 'Select Comm. Slot.' The currently selected slot will be displayed. Enter the number of the slot which contains your comm card and press **RETURN**. If you don't wish to change the current slot number, just press **RETURN**.

Serial Card Specification

FUNCTION: Display and/or modify the type of communication card which **The Home Connection** is expecting to find.

DESCRIPTION: Tells **The Home Connection** what type of comm card you have. Depending on which card you have, you will be asked to setup various parameters. For more details, see Appendix 2, which describes various serial cards.

USE: Select 'Serial Card Specification' from the Configure Menu, then indicate which type of serial card you have. If you have a Micromodem, you will be asked to define Start/Data/Stop bits and Baud rate. If you have a generic 6551, you will be asked to define the following: Base address, Start/Data/Stop bits, Baud rate, Clock source. In either case, to configure to a standard 300 baud system, select the first item in each menu (a safe bet if you aren't sure!).

Phone Numbers

FUNCTION: Display and/or modify **The Home Connection's** phone list.

DESCRIPTION: **The Home Connection** maintains a list of up to 16 different phone numbers. Each phone number has a name associated with it, and is referred to by a single character tag (0 thru F). A partial phone list might look like this:

0) FRED	1-312-555-1212
1) TELETIME	123-7654
2) BULL BOARD	123-4567
(and so on)	

Here, tag 0 refers to Fred's phone number (which is 1-312-555-1212), tag 1 refers to TeleTime, and so on.

USE: Select 'Phone List' from the Configure Menu. The current phone list will be displayed. At the prompt, enter the new phone number (or press **RETURN** to get back to the Configure Menu). At the next prompt, enter the name to be associated with this number. The name and number will then be displayed, and you will be asked 'OK? (Y/N)'. If something is wrong, press **N** and re-enter the phone number and name. If all is OK, press **Y** and continue. At the next prompt, enter the tag number (0 thru 9 or A thru F) you want to use. The updated phone list will be displayed, with the new phone number next to its tag number. At this point, you may continue by entering another phone number (at the prompt), or you may exit to the Configure Menu by pressing **RETURN**.

NOTES: If you enter a tag which is currently in use, that entry will be replaced by the new entry. To delete an entry, enter a single dash for the phone number (actually any character except **RETURN** or **SPACE** is OK), enter a Space for the name, then enter the tag you want to delete.

Transmit Translate Table

FUNCTION: Display and/or modify the transmit translation table.

DESCRIPTION: Not all computers seek in ASCII exactly the way the Apple II does. Because of this, while in Conversation mode **The Home Connection** will translate each outgoing character using the Transmit Translate table. In the trivial cases, a character will translate to itself (an A translates to an A), but many other translations are possible: lowercase conversion (a translates to A); ASCII characters can be converted to EBCDIC: etc.

Until you change it, **The Home Connection's** transmit translation table converts all characters to negative ASCII (high bit on), and converts all lowercase characters to uppercase.

USE: From the Configure Menu, select 'Transmit Translate Table.'

EXIT TO CONFIGURE: returns to Configure Menu.

SHOW TRANSMIT TABLE: displays current transmit translate table.

MODIFY TRANSMIT TABLE: allows changes to be made to the transmit table.

Enter the hex code of the character to be translated (or press **RETURN** to get back to the Configure Menu). Its current translation will be displayed; enter the new translation value in hex and press **RETURN** (or just press **RETURN** to keep the old value). **The Home Connection** will again prompt you to enter the hex code of the character to be translated. Repeat the above, or press **RETURN** to get back to the Configure Menu.

CLEAR TRANSMIT TABLE: Clears the translation table to **The Home Connection's** default translation (hi bit of all characters on). You may also choose to have all lowercase characters converted to uppercase, or no translation at all (straight through).

Receive Translate Table

FUNCTION: Display and/or modify the receive translation table.

DESCRIPTION: As with the Transmit Translate Table, **The Home Connection** translates all incoming characters (while in Conversation mode). Refer to the section on 'The Converse Menu: Transmit Translate Table.'

USE: Same as for the Transmit Translate Table, except that characters set to zero will be ignored by **The Home Connection**, effectively throwing them away.

Control Key Macros

FUNCTION: Display and/or modify the control key macro table.

DESCRIPTION: The Control Key Macro Table is used while in Conversation mode, and converts various control keys into phrases. For instance, if you use the word 'BASIC' frequently, you could define Control-B to be a macro for the word 'BASIC'. Any control key (except for the **The Home Connection** attention key, the Print Screen key and the **RETURN** key) can be defined as macro. Macros can be up to 8 characters long; combinations of macros can be used for longer sequences. For example you might assign Control-R to be 'POST REA' and Control-A to be 'D APPLE'; this way Control-R followed by Control-A will produce 'POST READ APPLE'.

USE: Select Control Key Macros from the Configure Menu. Enter the control key to be assigned or modified (or press **RETURN** to get back to the Configure Menu). You will be prompted to enter the macro definition. If the macro contains only printable characters, type these in directly (up to a maximum of 8 characters). If the macro contains control characters, or characters not available from the Apple Keyboard, enter those characters as hex numbers, each preceded by a dollar sign (\$). For example, to enter Control-P "OFF" followed by **RETURN**, enter the following string: **\$90\$CF\$C6\$C6\$8D**. Hex numbers must be entered one byte at a time, and each must be preceded by a dollar sign. Any hex byte except \$00 may be entered as part of a macro.

NOTES: If a \$00 byte is needed, do the following: enter \$80 into the macro in place of \$00, then translate \$80 to \$00 using the Transmit Translate Table.

Carriage Return Delay

FUNCTION: Instructs **The Home Connection** how long to wait after each **RETURN** is sent.

DESCRIPTION: Some terminals take a little time to respond to a carriage return (for instance, a printing terminal needs enough time to print the line). **The Home Connection** allows for slower terminals, and will pause a specified amount of time after it sends each RETURN. This delay can range between 0 seconds (no delay) to about 6 seconds (a very long delay) in 0.025 second increments.

USE: Select 'Carriage Return Delay' from the Configuration Menu. Enter the delay time, in .025 second increments. To calculate the delay value, divide the time (in seconds) by .025. For example, to get a delay time of 1.5 seconds, divide 1.5 by .025, which yields 60. In this case you would enter 60.

Configure Disk

FUNCTION: Tells **The Home Connection** where to find your data disk.

DESCRIPTION: **The Home Connection** is designed for use on a two drive system, where one drive contains the **The Home Connection** disk, and the other contains your Data disk (on which you keep your files). On a standard two drive system, the **The Home Connection** disk will be in slot 6, drive 1, and your data disk will be in slot 6, drive 2. On a one drive system, both the **The Home Connection** and Data disks will be in slot 6, drive 1; obviously, they can't both be in the drive at the same time, so you will have to swap disks when you use the Disk Access Menu (from the Main Options list).

USE: From the Configure Menu, Select 'Configure Disk Drive.' Enter the slot number (and RETURN) to be used for the data disk (or just press RETURN to return to the Configure Menu). Next select the drive number of the data disk. If you have a one drive system, make sure the drive number is 1, or **The Home Connection** will 'hang' when it looks for the data disk in a non-existent disk.

NOTE: On a one drive system, **The Home Connection** will prompt you to swap disks as needed.

Configure Printer

FUNCTION: Assign printer slot, line width and setup string.

DESCRIPTION: If you have a printer, **The Home Connection** can be configured to use it to print out any screen, as well as the contents of the Text Buffer. Before it can use the printer, **The Home Connection** needs to know what slot it's in, how many characters can be printed on a line, and what setup string (if any) is needed by the printer and/or its interface card. **The Home Connection** uses the width value when calculating if a word will 'wraparound' at the end of a line. **The Home Connection** uses the setup string each time it sends something to the printer. Various printers and interface cards need to be sent a setup string in order to work correctly. For instance, some interface cards need to be sent Control-I N so that output to the printer will not be displayed on the screen. Others need to be sent Control-I 80N so that they can print 80 character lines.

USE: Select Configure Printer from the Configure Menu. Enter the printer slot number then press RETURN. Enter the printer width (maximum number of characters which can be printed on a line) then press RETURN. Enter the printer setup string (if required) then press RETURN. Note that the setup string can contain invisible control codes as well as visible characters.

NOTE: Most printer cards require the following setup string: Control-I 80N, (entered without any spaces).

APPLE SUPER SERIAL CARD or APPLE//C: Use the following setup string if you find that some lines are being overprinted: Control-I CN.

Configure Screen

FUNCTION: Allows **The Home Connection** to use the Apple 40 column screen, the Apple //e 80 column screen, or a Videx 80 column card.

DESCRIPTION: If you have either an Apple //e 80 column card (or Apple //c) or a Videx 80 column card, **The Home Connection** can be configured to use it. An 80 column screen can display twice as much information as a 40 column screen. In addition, some timesharing systems format their text for an 80 column screen. If you have an 80 column card, use it!

USE: Select 'Configure Screen' from the Configure Menu. Select the appropriate screen type. If you have a 40 column screen, you will need to specify whether or not your screen can display lowercase characters: if you have an unmodified Apple][, you cannot display lowercase; if you have an Apple //e or //c, or have installed a lowercase adapter in your Apple][, you will be able to display lowercase.

NOTE: If you have configured your **The Home Connection** disk for 80 column display, it will not work correctly if booted on an Apple without an 80 column card. To boot **The Home Connection** on a 40-column Apple, hold down the **S** while the disk is booted, and **The Home Connection** will use the Apple 40 column screen, even if it is configured for an 80-column display.

Configure The Home Connection Control Chars

FUNCTION: Modify **The Home Connection's** Control Characters: Attention key, Print Screen key, Start key, and Stop key.

DESCRIPTION: The Attention key is used to 'get **The Home Connection's** attention,' and is usually used to return to a menu (for example, when getting out of Conversation). The Print Screen key, when pressed, sends the contents of the screen to your printer. The Stop key is used with time-sharing systems, and tells the host computer to stop transmitting. Likewise, the Start key tells the host computer to start transmitting again.

USE: Select 'Configure **The Home Connection** Control Chars' from the Configure Menu. Select the appropriate control key from the Control Key Menu: Attention key, Print Screen key, Start Character, Stop Character, and enter the new control key. An actual control key must be entered—remember to hold down the key labeled **CONTROL**.

NOTES: The default values for the Control Keys are:

Attention key	Control-0
Print Screen key	Control-Shift-@
Start character	Control-S
Stop character	Control-Q

If you change these values, make sure that the Attention key is different from the Print Screen key, and the Start character isn't the same as the Stop character. **The Home Connection** will not let you use the predefined control characters: backspace (Control-H), forward arrow (Control-U), or **RETURN** (Control-M).

Set Shift Key Mod

FUNCTION: Configure **The Home Connection** to use your shift key mod if you've installed one.

DESCRIPTION: Before the Apple //e, Apple keyboards were unable to generate lowercase characters. To get around this limitation, many people installed a wire from the shift key to the game I-O socket, which allowed special software to recognize when the shift key was being held down. When the shift key mod is installed, characters coming from the keyboard are assumed to be lowercase if the shift key isn't pressed, and uppercase if it is pressed. **The Home Connection** can be configured to use such a shift key mod.

USE: Select 'Set Shift Key Mod' from the Configure Menu. Select either 'Enable Shift Key Mod' (if you've installed the shift key mod), or 'Disable Shift Key Mod' (if you haven't installed one). If you have a standard Apple II or //e keyboard, make sure you select 'Disable Shift Key Mod.'

C. THE CONVERSE MENU

Conversation mode, or 'smart terminal' mode, is used to talk with timesharing computers, bulletin board systems, or other Apple users. Conversation mode implies two-way communication, much like a regular phone call.

A call can be established in one of two ways. If you have an autodial modem, **The Home Connection** itself can pick up the phone, and dial the number. If you don't have an autodial modem, you will have to pick up the phone yourself and dial the number. In either case, once the number is dialed, **The Home Connection** will listen for a modem on the other end; when it hears one, it establishes a connection, and the conversation can begin.

While in Conversation mode, everything you type on the keyboard is transmitted to the other computer. Likewise, everything they type on their keyboard is transmitted to you. If you wish to record the conversation, **The Home Connection** will 'trap' the conversation, and store it in its text buffer. Once stored, conversation may be viewed on the screen, printed out to your printer, or saved on a disk. If you only need hardcopy of a small part of a conversation, **The Home Connection's** Print Screen key, **Shift-Control-@**, can be used. When this key is pressed, your printer will immediately print the current contents of the screen.

To leave conversation mode, press the **The Home Connection** Attention Key, **Control-O**, which returns you to the Converse Menu. From there you may turn the text trap on or off, view the text buffer (or clear it), return to Conversation mode, hang up, or return to the Main Options Menu.

- A. Main Options
- B. Conversation
- C. Trap On

- D. Trap Off
- E. Clear Buffer
- F. View Buffer
- G. Half Duplex
- H. Full Duplex
- I. Xmit <break>
- J. Linefeed On
- K. Linefeed Off
- L. Dial
 - 1. Exit to Converse
 - 2. List #
 - 3. New #
- M. Pickup
 - 1. Exit to Converse
 - 2. Originate
 - 3. Answer
- N. Answer
- O. Hangup
- P. Help

Main Options

FUNCTION: Returns to the main options menu.

DESCRIPTION: Does not hang up the phone. If the text trap is on, continues to receive into the text buffer.

Conversation

FUNCTION: Enters the Conversation (smart terminal) mode.

DESCRIPTION: Before you can enter Conversation mode, a connection must be established between the two computers (using Dial or Pickup). Once in Conversation mode, all keys typed (other than command keys) are transmitted to the other computer, and vice versa. While in this mode, the Control Key macros are available, the Transmit Translate Table is used to convert all characters you send, and the Receive Translate Table is used to convert all characters you receive.

USE: Enter Conversation mode by selecting that option from the Converse menu. To get back to the Converse Menu, use the **The Home Connection Attention Key: Control-O.**

Trap On

FUNCTION: Turns the text trap on.

DESCRIPTION: Adds subsequent conversation to whatever is in the text buffer. Does not automatically clear the text buffer. The trap will remain on until

- 1) Trap Off is selected,
- 2) the text buffer becomes full
- 3) either party hangs up, or the connection is broken.

USE: From the Converse Menu, select 'Trap On.'

Trap Off

FUNCTION: Turns the text trap off.

DESCRIPTION: This does not clear the text buffer, nor does it automatically save it to disk. If Trap On is subsequently selected, further conversation is added to whatever is in the text buffer.

USE: From the Converse Menu, select 'Trap Off.'

Clear Buffer

FUNCTION: Clears the contents of the text buffer.

DESCRIPTION: If the trap is on, will continue to record the conversation in the (now empty) buffer.

USE: From the Converse Menu, select 'Clear Buffer.' **The Home Connection** will ask you if you're sure you want to clear it. If you press **Y**, the text buffer will be cleared, and **The Home Connection** will return to the Converse Menu. If you press **N**, **The Home Connection** will return to the Converse Menu without clearing the buffer. If you wish to keep a copy of the buffer, either print it out (from the Printer Access Menu) or save it to disk (from the Disk Access Menu) before clearing it.

View Buffer

FUNCTION: Used to view the contents of the text buffer.

DESCRIPTION: The buffer may be viewed at any time, even while the text trap is on, and text is being added to the buffer. This option is very handy, and can be used to review an earlier portion of the conversation.

USE: From the Converse Menu, select 'View Buffer.' The contents of the buffer will slowly be displayed on the screen. Several keys are used to control the display. The **SPACE** key is used to pause the display; press it once to stop, press it again to start. The **S** selects slow scrolling (one or two words displayed each second). The **F** key selects fast scrolling. The **The Home Connection** Attention Key, **Control-O**, cancels the view, and returns to the Converse Menu. If viewing continues until the end of the buffer is reached, **The Home Connection** will return to the Converse Menu.

Half Duplex

FUNCTION: Selects half duplex (no echo).

DESCRIPTION: Half Duplex displays characters on your screen as you type them. The receiving terminal/computer should not echo (send back) the characters it receives.

USE: If you find yourself in the converse mode, and the keys you press aren't displayed on the screen, you probably should be in Half Duplex mode. Press the **The Home Connection** Attention Key **Control-O**, select Half Duplex, then select 'Conversation Mode' to continue with the conversation.

Full Duplex

FUNCTION: Selects full duplex (echo).

DESCRIPTION: Full Duplex does not display characters on your screen as you type them. Instead, the characters you type are sent to the receiving computer, which then echoes them back. When your computer receives the characters, only then does it display them on the screen.

USE: If within a conversation you find each key you hit displayed twice on the screen ('HHEELLOO'), you're in Half Duplex and the other computer is in Full Duplex. In other words, you're displaying your own keystrokes, and the other computer is also echoing the same characters. Result: two characters displayed for every key pressed! The solution is to enter Full Duplex mode. Press the **The Home Connection** Attention Key, **Control-O**, select 'Full Duplex', then select 'Conversation' to continue with the conversation.

Xmit <break>

FUNCTION: Send a break to the other computer.

DESCRIPTION: Some large computers (mainframes) require that you send a **BREAK** to perform certain functions (like interrupting them, or logging on). Many terminals have a **BREAK** key on their keyboard, but unfortunately the Apple doesn't. To overcome this limitation, **The Home Connection** allows you to send a **BREAK** from the Converse menu.

USE: From the Converse menu, select 'Xmit <break>.'

Linefeed On

FUNCTION: Generates a linefeed after every carriage return.

DESCRIPTION: Generally speaking, carriage returns and linefeeds go together like milk and cookies. When you are typing on your Apple and you press the **RETURN** key, the cursor jumps to the left side of the screen (a carriage return) **AND** goes down to the next screen line (a linefeed). This is how it should be. Without a linefeed, the next line of characters produced would overwrite the last one. If you are in converse mode and receiving data from another computer and you notice the cursor occasionally moves to the left side of the screen without moving down to a new line, then linefeeds are not being generated, and you should select this option.

USE: From the Converse Menu, select 'Linefeed On'. From then on, **The Home Connection** will automatically generate a linefeed whenever it receives a carriage return.

Linefeed Off

FUNCTION: Turn off generation of linefeeds with each carriage return.

DESCRIPTION: Normally, you will want to generate a linefeed after every carriage return (see Linefeed On, above). However, if you are in converse mode and you seem to be getting extra blank lines within your text, the computer you are conversing with is probably sending an extra linefeed with every carriage return and you don't need to generate linefeeds yourself. Extra linefeeds won't hurt anything, but this option allows you to stop generating them.

USE: From the Converse Menu, select 'Linefeed Off'. From then on, **The Home Connection** will assume the other computer will send linefeeds when they are needed.

Dial

FUNCTION: Dial a phone number.

DESCRIPTION AND USE (with autodial): The number to be dialed may be typed in directly, or may come from **The Home Connection's** phone list. Once the number has been dialed, **The Home Connection** enters Originate mode, and listens for a modem in Answer mode to pick up the phone. When one answers, **The Home Connection** establishes a connection, and automatically enters terminal mode. **The Home Connection** will inform you if it cannot establish a connection, and it will return to the Converse Menu.

DESCRIPTION AND USE (without autodial): **The Home Connection** will display the list of phone numbers. Pick up the handset and dial the number. When the other end picks up, and the beep of their modem is heard, put the handset into the coupler and move the coupler's mode switch (if there is one) to the ORIGINATE position. **The Home Connection** will then enter Conversation mode.

Pickup

FUNCTION: Pick up the phone and connect to another computer once a number has been hand-dialed.

DESCRIPTION: Can be used to establish a connection if your modem does not support auto-dial. Alternately, it can be used if you're already talking (vocally) on the phone with someone, and then wish to connect computers without hanging up and redialing.

USE: When this option is selected, **The Home Connection** will ask you whether it should pick up in Originate mode (meaning you dialed the phone) or Answer mode (meaning you answered the phone). In most cases it's irrelevant which computer is in Originate mode, but the other one **MUST** be in Answer mode for a connection to be established. Once it picks up, **The Home Connection** listens for a modem in the appropriate mode on the other end. When it hears one, a connection is established, and **The Home Connection** automatically enters Conversation mode. If a connection cannot be established, **The Home Connection** will tell you so, and return to the Converse Menu.

Answer (Micromodem Only)

FUNCTION: **The Home Connection** waits for the phone to ring.

DESCRIPTION: When the phone rings, **The Home Connection** picks up the phone (in Answer mode) and listens for a modem in Originate mode on the other end. If it hears one, a connection is established, and **The Home Connection** automatically enters Conversation mode. If it cannot establish a connection, **The Home Connection** tells you so, and returns to the Converse Menu.

Hangup

FUNCTION: Instructs **The Home Connection** to hang up the phone (disconnect).

DESCRIPTION: The **The Home Connection** software will disconnect itself from the modem, in addition to turning off the text trap. If you have a serial card with a modem or acoustic coupler, you should also move the mode switch to the TALK position, and hang up the phone. If you have an autodial modem, it will do this automatically.

USE: When you select the Hangup option, **The Home Connection** will ask you 'Are You Sure? (Y/N)'. Press **Y** to hang up the phone, or press **N** if you don't really want to. Either way, you will be returned to the Converse Menu.

D. THE DISK ACCESS MENU

Disk Access is used to access your data disk. It lets you catalog the disk, load and save the contents of the text buffer, rename and delete files, and load and save **The Home Connection's** configuration files.

- | | |
|-----------------|---|
| A. Main Options | I. Unlock |
| B. Catalog | J. Save Config to Data Disk |
| C. Save Buffer | K. Save Config to The Home Connection Disk |
| D. Load Buffer | L. Load Config from Data Disk |
| E. View Buffer | M. Free Space |
| F. Rename | N. Load Printer Driver |
| G. Delete | L. Help |
| H. Lock | |

Main Options

FUNCTION: Returns to the Main Options Menu.

Catalog

FUNCTION: Displays a catalog of the data disk.

DESCRIPTION: This option displays a list of the files on the data disk, and essentially does the same thing as the DOS 'CATALOG' command. In addition, the volume number of the disk and the number of disk sectors free are displayed.

USE: From the Disk Access Menu, select 'Catalog'. A list of files will be displayed. If there are more files on the disk than can be displayed, a blinking cursor will appear on the lower left corner of the screen; press the **SPACE** key to list the rest of the files. Returns to the Disk Access Menu when done.

Save Buffer

FUNCTION: Saves the contents of the Text Buffer to a text file.

DESCRIPTION: Does not clear the text buffer, does not change the state of the text trap. If the name of the text file is the same as an existing file, the contents of that file will be lost.

USE: Select Save Buffer from the Disk Access Menu. (NOTE: If the buffer was saved previously, **The Home Connection** displays the filename used, and asks you if you wish to use that name again. Press **Y** to save the buffer using that filename, press **N** to enter a new filename). A catalog will be displayed. At the prompt, enter the filename to be used in saving the file. **The Home Connection** will save the buffer, and return to the Disk Access Menu.

Load Buffer

FUNCTION: Load a file into the text buffer.

DESCRIPTION: Loads a file into the text buffer where it can be printed, viewed, or transmitted. The file loaded into the text buffer should be a Text file.

USE: From the Disk Access Menu, select 'Load Buffer'. **The Home Connection** will ask you if you want to Clobber the buffer, or Append to it. If you select Clobber, the current contents of the buffer will be replaced (erased) by the file. If you select Append, the file will be loaded at the end of the buffer (for example, if the buffer contained File 1, and you appended File 2, the buffer would contain File 1 immediately followed by File 2). After the file is loaded, **The Home Connection** will return to the Disk Access Menu.

View Buffer

FUNCTION: View the contents of the text buffer.

DESCRIPTION: This option is exactly the same as the View Buffer Option from the Converse Menu. Refer to that section for details.

Rename

FUNCTION: Change the name of a file on the data disk.

DESCRIPTION: This option is essentially the same as the DOS 'RENAME' command.

USE: Select Rename from the Disk Access Menu. A catalog will be displayed. At the prompt, enter the current name of the file you wish to change. At the next prompt, enter the new filename. **The Home Connection** will rename the file, and return to the Disk Access Menu.

Delete

FUNCTION: Remove a file from the data disk.

DESCRIPTION: This option is essentially the same as the DOS 'DELETE' command.

USE: Select Delete from the Disk Access Menu. A catalog will be displayed. At the prompt, enter the name of the file you wish to delete. **The Home Connection** will delete the file and return to the Disk Access Menu.

Lock

FUNCTION: Lock a file on the data disk.

DESCRIPTION: This option is essentially the same as DOS 'LOCK' command.

USE: Select Lock from the Disk Access Menu. A catalog will be displayed. At the prompt, enter the name of the file you wish to lock. **The Home Connection** will lock the file, and return to the Disk Access Menu.

Unlock

FUNCTION: Unlock a file on the data disk.

DESCRIPTION: This option is essentially the same as the DOS 'UNLOCK' command.

USE: Select Unlock from the Disk Access Menu. A catalog will be displayed. At the prompt, enter the name of the file you wish to unlock. **The Home Connection** will unlock the file, and return to the Disk Access Menu.

Save Configuration to Data Disk

FUNCTION: Save the current configuration of **The Home Connection** to a file on the data disk.

DESCRIPTION: Because you may use several different configurations at various times (one for a Micromodem, one for a Super Serial card, etc), **The Home Connection** allows you to save the current configuration out to your data disk. The configuration file will only be meaningful to **The Home Connection**.

USE: From the Disk Access Menu, select 'Save Configuration to Data Disk'. A catalog of the data disk is displayed. At the prompt, enter the name to be used for the configuration file. **The Home Connection** will save out the current configuration, then return to the Disk Access Menu.

Save Configuration to The Home Connection Disk

FUNCTION: Save the current configuration out to the **The Home Connection** disk, where it will be loaded the next time **The Home Connection** is booted.

DESCRIPTION: The **The Home Connection** disk can contain only one configuration at a time. When one is saved, the previous one is lost. Use the 'Save Configuration to Data Disk' to maintain several configurations.

USE: From the Disk Access Menu, select 'Save Configuration to **The Home Connection** Disk'. The configuration will be saved to the **The Home Connection** disk, and you will be returned to the Disk Access Menu.

Load Configuration from Data Disk

FUNCTION: Loads a previously saved configuration file from the data disk.

DESCRIPTION: Only a configuration file created thru 'Save Configuration to Data Disk' can be loaded.

USE: From the Disk Access Menu, select 'Load Configuration from Data Disk'. A catalog will be displayed. At the prompt, enter the name of the configuration file you wish to use. That file will be loaded, and you will be returned to the Disk Access Menu.

Free Space

FUNCTION: Displays the number of sectors free on the data disk.

DESCRIPTION: Used to indicate how full the data disk is (NOTE: a standard DOS 3.3 disk has a maximum of 496 sectors available for use).

USE: Select 'Free Space' from the Disk Access Menu. The number of free sectors will be displayed, and you will be returned to the Disk Access Menu.

Load Printer Driver

FUNCTION: Load a short printer driver into memory.

DESCRIPTION: Some printers require a machine language driver routine in order to run properly. **The Home Connection** allows a short printer driver to be loaded into the memory area \$300-\$3EF. The driver must be a binary file which, when called (via a JSR \$300), will send the character in the A register to the printer. This routine may use the zero page locations \$00-\$1F, and must completely reside within memory area of \$300-\$3EF.

USE: Select 'Load Driver' from the Disk Access Menu. A catalog of the data disk will be displayed, and you will be asked to enter the name of the printer driver file. If the file is of type Binary, it will be loaded into memory starting at location \$300. If the file is more than \$F0 bytes long, only the first \$F0 bytes will be loaded. When done, this option returns to the Disk Access Menu.

E. THE TRANSMIT/RECEIVE MENU

The Home Connection's Transmit/Receive section allows you to quickly transfer files over the phone. Unlike other file transfer systems, **The Home Connection** is not limited to transmitting only text files, but can transfer any type of file. **The Home Connection** can transmit a file in three different formats: ASCII Converted format (ACF), ASCII Text file format (transmitted out of the text buffer), and BTRAN Transmit format.

- | | |
|----------------------------|---|
| A. Main Options | D. Transmit to The Home Connection |
| B. Conversation | E. Transmit Disk File |
| C. Receive from | F. Transmit Buffer |
| The Home Connection | G. Help |

Main Options

FUNCTION: Return to Main Options Menu.

Conversation

FUNCTION: Allows keyboard messages to be sent while in the Transmit/Receive Menu.

DESCRIPTION: When transmitting files, there is often a need to send a short message to the receiver, telling what file is about to be sent, or instructing to pick up the handset, etc. The Conversation Option allows such a message to be sent without having to leave Transmit/Receive to get back to the Converse Menu. This version

of Conversation mode, however, does not have all the fancy features of the standard Conversation mode (no control key macros or text trap, for instance), but then it's only meant for brief messages. For extended conversations, you should return to the Converse Menu, and use the Conversation option there.

USE: From the Transmit/Receive Menu, select 'Conversation' to enter mini-Conversation mode. To return to the Transmit/Receive Menu, press the **The Home Connection** Attention key (Control-O).

Receive from The Home Connection

FUNCTION: Receives a file using BTRAN Transmission Format (see Appendix 3).

DESCRIPTION: This receives a file from someone else's computer in the special fast, error-checking BTRAN format. The other person must be sending in BTRAN format, using **The Home Connection**, **BTRAN**, or **Netmaster**. If the phone connection is broken before the transmission is complete, the file is not added to your disk's catalog, and the sectors already written are not marked as being used (this effectively leaves the disk unchanged). Thus, if the file does appear on the disk, it was received in its entirety; and because of **The Home Connection's** error detection and recovery, you are assured of the file's integrity.

USE: From the Transmit/Receive Menu, select 'Receive from **The Home Connection**.' On a single drive system, you will be prompted to insert a data disk. Transmission is automatic from this point. When the transmission is complete, the file is added to the catalog, and you are returned to the Transmit/Receive Menu.

Transmit to The Home Connection

FUNCTION: Transmits a file using BTRAN Transmission Format (See Appendix 3).

DESCRIPTION: This format allows any file to be transmitted, regardless of filetype. It also detects and corrects transmission errors, and is very reliable. The file is transmitted directly from disk (sector by sector), thus very large files may be transmitted. The receiver must also be using **The Home Connection**, or another program that accepts BTRAN format, such as **BTRAN** or **Netmaster**.

USE: From the Transmit/Receive Menu, select 'Transmit to **The Home Connection**.' On a single drive system you will be prompted to insert your data disk in the drive. The disk's catalog is displayed, and you are prompted to enter the filename to be transmitted. When the filename has been entered, **The Home Connection** will display the filename and the number of sectors to be transmitted. It will then transmit the file. When transmission is complete, you will be returned to the Transmit/Receive Menu.

NOTES: If the phone conversation is broken before the transmission is complete, the receiving disk will have no record of the file in its catalog, and the file will have to be retransmitted. On a positive note, if the file does appear on the receiving end, it was received intact and in its entirety.

NOTES: This option is primarily for transmitting binary and Applesoft files. If you need to transfer a text file, try loading the file into the buffer and using the 'Transmit Buffer' option instead.

If the phone connection is broken before the transmission is complete, the receiving computer will still have at least part of the transmitted file.

Transmit Buffer

FUNCTION: Transmits the contents of the text buffer. Used to transfer Text files; transmits each byte verbatim (no translation).

DESCRIPTION: When the file to be transmitted is a Text file (for example, a message to be posted on a BBS), the file can be loaded into the text buffer (from the Disk Access menu), and then transmitted using the Transmit Buffer option. This transmits the contents of the buffer as if you were typing it at the keyboard, although it transmits much faster than most people can type. Since it's transmitting text, **The Home Connection** doesn't have to convert the characters into ASCII (they already are ASCII!). Thus, for each byte in the file, only one character is transmitted, and the transfer is quite efficient. No checksum is transmitted however, thus it is possible for transmission errors to go undetected (and uncorrected). This is the method most computers and terminal packages use for transferring information.

USE: Select 'Transmit Buffer' from the Transmit/Receive Menu. The catalog of the data disk will be displayed. At the prompt, enter the name of the file to be transmitted. You will then be asked 'Enter the prompt to wait for'. **The Home Connection** will wait for this prompt before it transmits the buffer. For example, if the prompt used by the receiving computer is something like '?' or '>', enter that character here (if you need to enter a control character, enter it as a hex value preceded by a dollar sign, for example: \$8D). As soon as **The Home Connection** receives that character, it will begin transmitting the contents of the buffer. If the receiving computer will not send a prompt, just press **RETURN**, and **The Home Connection** will transmit the buffer immediately.

NOTES: If the connection is broken before the buffer has been completely transmitted, the receiving computer will have at least a partial file, which may or may not be useful.

F. THE HOME CONNECTION EDITOR

For your convenience in preparing text files, **The Home Connection** includes a basic screen editor. The editor comes in handy when you wish to create a text file, or modify an existing Text file or a conversation you've captured into the text buffer. It's very useful for just viewing the text buffer, since it allows you move through the buffer, and can even search for words and phrases.

The editor is designed to be easy to use, and its commands are simple and easy to remember. Most commands are mnemonic control characters: **Control-D** will Delete, **Control-B** will go to the Beginning of the buffer, and **Control-F** will Find a word. Should you forget any commands, use **ESC H** to see the Help Screen.

Transmit Disk File

FUNCTION: Transmits a file sector by sector, translating each hex byte into two ASCII characters followed by a space. This option is used to transmit files to computers which do not support BTRAN format transmissions. If the file to be transmitted is a Text file, you should use the Transmit Buffer option instead.

DESCRIPTION: If the receiving computer can only handle ASCII data (like many communication packages), **The Home Connection** must convert Binary and Basic files into ASCII characters in order to transmit it. **The Home Connection** does this translation 'on the fly,' and does not require you to convert the file beforehand. Refer to Appendix 4 for a detailed description of this format.

Whoever receives the data will be responsible for making sense out of it, since the data sent will be the (translated) byte-for-byte contents of the disk sectors used by the file. For example, if an Integer BASIC file is transmitted, the first two bytes will represent the length of the file, and the remaining bytes will be the program itself. Refer to the Apple's DOS manual for details on file formats.

USE: From the Transmit/Receive Menu, select 'Transmit File'. On a single drive system, you will be prompted to insert your data disk in the drive. At the prompt, enter the name of the file to be transmitted, and **The Home Connection** will begin transmitting the file as ASCII converted hex (see Appendix 4). The receiving computer will need a text capture program to capture the program, as well as a program to convert the ASCII hex data back into hex bytes.

Getting In and Out of the Editor

To enter the editor, select 'Enter Editor' from the Main Options list. To exit the editor and get back to the Main Options list, press **Control-Q** (for quit). The standard **The Home Connection** Attention key, **Control-O** can also be used to get out of the editor.

WARNING: If you change the **The Home Connection** Attention key to another control character (see Configure Menu), the editor will not recognize the new key; this is to avoid conflicts between the new Attention key and the editor's command keys.

About The Editor

This editor follows the 'what you see is what you get' philosophy. Any regular (non-control) character typed is immediately inserted in the text buffer, and displayed on the screen.

All commands, with one exception, are control characters. To enter a control command, such as **Control-D**, hold down the **Control** key and press **D**. On an Apple II keyboard, the control key is labelled **CTRL**; on the Apple //e it's labelled **Control**.

Commands are designed to be easy to remember: the right-arrow moves right, the down-arrow moves down, and **Control-D** deletes a character. Preceding most commands with **ESC** tends to 'amplify' the command: **ESC right-arrow** moves the cursor all the way right (to the end of the line), **ESC down-arrow** moves the cursor to the next screen, and **ESC Control-D** deletes the rest of the line. On an Apple //e keyboard, you can use the **open-apple** key instead of **ESC**. The **open-apple** key must be held down like a shift key. When using **ESC**, that is just a single keypress preceding the next character.

The one command which is not a control character is **ESC ?**, which displays the Help Screen. We would like to have used **Control-H**, but on the Apple, a **Control-H** is the same as a left-arrow! Other ways to get to the Help Screen are by using **ESC H**, or on the Apple //e, **open-apple-?** or **open-apple-H**.

Key Abbreviations

This section uses the following key abbreviations:

right	Represents the right-arrow key.
left	Represents the left-arrow key.
up	Represents the up-arrow key on the Apple //e. (APPLE II KEYBOARD: use Control-A)
down	Represents the down-arrow key on the Apple //e. (APPLE II KEYBOARD: use Control-Z)
ESC	Represents the escape key.
Control	Represents the control key; it's labelled CTRL on the Apple II, and Control on the Apple //e. It's always used in conjunction with another key. For example Control-D , means hold down the Control key and press the D key.
OA-	Represents the open apple key on the Apple //e keyboard, and is used in conjunction with another key. For example OA-right means hold down the open apple key and press the right-arrow .
DELETE	Represents the delete key on the Apple //e keyboard.

The Apple II and //e Keyboards

The newer Apple //e keyboards have several keys not present on original Apple II keyboards, most notably a real **shift** key, the **apple** keys, and the **DELETE** key. The editor uses the extra keys on the //e for some 'shorthand' commands: the **open-apple** key can be used instead of the **ESC** key to amplify commands, for example. The **DELETE** key is used as a destructive backspace; it deletes the character to the left of the cursor. To do the same thing on an Apple II you would first backspace, then press **Control-D**. You can do the same things on either keyboard, but the //e keyboard makes things a little more convenient.

Basic Commands

Apple //e	Apple II	
right	right	Move cursor right.
left	left	Move cursor left.
up	Control-A	Move cursor up, scrolling the screen if necessary.
down	Control-Z	Move cursor down, scrolling screen if necessary.
OA-right	ESC right	Go to end of current line.
OA-left	ESC left	Go to beginning of current line.
OA-up	ESC Control-A	Go to previous page.
OA-down	ESC Control-Z	Go to next page.
RETURN	RETURN	Go to beginning of next line.
Control-B	Control-B	Go to beginning of the text buffer.
Control-E	Control-E	Go to end of the text buffer.
Control-D	Control-D	Delete the character under the cursor.
DELETE		Delete the character before the cursor.
Control-F	Control-F	Find a word or words. See FINDING A WORD, below.

OA-? or OA-H	ESC? or ESC-H	Display the Editor Help Screen.
Control-Q	Control-Q	Quit the Editor, return to the Main Options list.
Control-O	Control-O	Same as Control-Q .

Advanced Commands

Apple //e	Apple II	
OA-Control-D	ESC Control-D	Delete the rest of the line.
OA-DELETE		Delete the entire line.
OA-Control-F	ESC Control-F	Find the next occurrence of a word. See FINDING A WORD, below.
Control-C	Control-C	Show control characters (toggle). See SEEING CONTROL CHARACTERS, below.
Control-V	Control-V	Enter next character verbatim. See ENTERING CONTROL CHARACTERS, below.
Control-R	Control-R	Redisplay the screen.

Inserting Text

It's easy to insert text; simply type on the keyboard! Text can only appear where the cursor is; to put text elsewhere, you have to move the cursor around.

ADVANCED USERS: Sometimes you might want to insert control characters (like a **RETURN**) into your text. To enter any control character, precede the character with a **Control-V** (For Verbatim). For more information, see ENTERING CONTROL CHARACTERS, below.

Moving The Cursor

The cursor can be positioned anywhere in the text buffer by using the arrow keys. As you would imagine, the four arrow keys move the cursor in the four directions (on an Apple II, use **Control-A** to move up and **Control-Z** to move down). **ESC** can be used in conjunction with the arrow keys to move quickly through the text buffer. **ESC left** moves all the way left, or to the beginning of the line; **ESC right** moves all the way right, or to the end of the line; **ESC up** (or **ESC Control-A**) moves to the previous page; **ESC down** (or **ESC Control-Z**) moves to the next page. As mentioned before, the **open-apple** key can be used instead of the **ESC** key (**OA-right** instead of **ESC right**, for example).

To quickly move to the beginning of the text buffer, use the **Control-B** key (for Beginning). To go to the end of the text buffer, use the **Control-E** key (for End).

The **RETURN** key is also used as a cursor movement key, and positions the cursor to the start of the next line.

Deleting Things

Two keys are used to delete characters: **Control-D** and **DELETE**. The **Control-D** key will delete the character under the cursor, shifting all the following characters (if any) to the left. The **DELETE** key (Apple //e only) will delete the character to the left of the cursor.

As with the cursor movement keys, the **open-apple** key (or **ESC**) can be used in conjunction with the deletion keys: **open-apple-Control-D** (or **ESC Control-D**) will delete the character under the cursor as well as all the characters to the right; **open-apple-DELETE** (or **ESC Control-D**) will delete the entire line (use with caution).

Finding A Word

At some point, you'll want to find a word (or words) in the text buffer. It may contain a half-hour worth of conversation, for example, but you're interested in a section where the word 'APPLE' is mentioned. You might start at the beginning and use **open-apple-down** to scan through the buffer, and look for that word yourself. An easier way would be to let the editor find the word for you. Press **Control-F** (for Find), and you will be prompted to enter the word you want to search for (the prompt will be 'FIND:'). Type in the word (APPLE in this case), and press **RETURN**. In a flash, the section of the text which contains the word will be displayed. If the word can't be found, you'll get a beep instead.

When finding a word, the editor will search to the end of the text buffer (if necessary), starting right after the cursor. This means that if the word appears BEFORE the cursor, the Find command won't see it. If you can't Find a word, use **Control-B** to go to the beginning of the text buffer, then try to find it.

In some cases, you'll want to find the same word several times. If so, you won't have to enter the word again; just press use **OA-Control-F** or **ESC Control-F** to find the next occurrence of the same word.

NOTES: You can use Find to search for up to 16 characters. The Find command pays no attention to case; if you're looking for 'APPLE' for example, it will match any of the following words: 'APPLE', 'Apple', 'apple', 'aPpLe'.

Seeing Control Characters

Most people don't want to see control characters which are in the text buffer, so control characters are normally not displayed. If you do want to see them, however, simply press **Control-C**, and every control character will be displayed as a caret (^). The most common control character is the **RETURN** character at the end of a line. If you move the cursor on top of one of these **RETURN**'s, it will alternate between a caret (^) and an 'M', telling you which control key it is: control-M. If you don't want to see control characters, just press **Control-C** again.

When control characters are displayed, you are in Show Control Mode. When you are in Show Control Mode, the status line will display the word **SHOWCTRL**.

Entering Control Characters

In some instances, you may want to insert control characters into the text buffer. Normally, control characters are treated as commands or ignored; either way, they aren't inserted into the text buffer. To enter a control character, press **Control-V** (which stands for Verbatim) first, then enter the control character. **Control-V** lets you enter a character verbatim, and doesn't treat it as a command. Only one character can be entered at a time this way; if you need to type in two or more control characters, precede each one with a **Control-V**.

When you press **Control-V**, the status line will contain the word **VERBATIM**, telling you the next character you type will be entered verbatim.

APPENDIX 1

Outline of The Home Connection's Menus and Functions

The Home Connection Main Options List

- I. CONVERSE
(Phone connection, terminal mode, text buffer on/off)
- II. ENTER EDITOR
(Edit text buffer)
- III. TRANSMIT/RECEIVE
(Transmit and receive disk files)
- IV. PRINT BUFFER
(Print contents of text buffer)
- V. DISK ACCESS
(Display catalog, load and save contents of text buffer, load and save configurations)
- VI. CONFIGURE
(Define slots, keyboard macros, character conversion, phone numbers, user disk drive, printer parameters, etc)
- VII. EXIT THE HOME CONNECTION
(Exit to BASIC)

I. CONVERSE

- A. MAIN OPTIONS
(Return to main options list)
- B. CONVERSATION
(Enters Conversation, or Smart Terminal, mode)
- C. TRAP ON
(Start recording terminal conversation)
- D. TRAP OFF
(Stop recording terminal conversation)
- E. CLEAR BUFFER
(Erase the contents of the text buffer)
- F. VIEW BUFFER
(Display the contents of the text buffer)
- G. HALF DUPLEX
(Set half duplex, typed characters are displayed as they're sent)
- H. FULL DUPLEX
(Set full duplex, typed characters are displayed when they're received)
- I. XMIT <BREAK>
(Sends a BREAK signal to the other computer)
- J. LINEFEED ON
- K. LINEFEED OFF
- L. DIAL
(Pick up phone and dial number; autodial only)
 - 1. Exit to Converse (Return to Converse menu)
 - 2. List # (Dial number from phone list)
 - 3. New # (Dial number entered from keyboard)

- M. **PICKUP**
 (Take phone off hook)
1. Exit to Converse
 (Return to Converse menu)
 2. Originate
 (Pick up phone in Originate mode, or low tone)
 3. Answer
 (Pick up phone in Answer mode, or high tone)
- N. **ANSWER**
 (Wait for phone to ring; Micromodem only)
- O. **HANG UP**
 (Put phone on hook; autodial only)

II. THE HOME CONNECTION EDITOR

A. CURSOR MOVEMENT

up	Cursor up
down	Cursor down
right	Cursor right
left	Cursor left
ESC right	Go to end of line
ESC left	Go to beginning of line
ESC up	Go to previous page
ESC down	Go to next page
RETURN	Go to beginning of next line
Control-B	Go to beginning of Text Buffer
Control-E	Go to end of Text Buffer

B. DELETE FUNCTIONS

Control-D	Delete character under cursor
DELETE	Delete character before cursor
ESC Control-D	Delete to end of line
ESC DELETE	Delete entire line

C. FIND WORD

Control-F	Find word(s)
ESC Control-F	Find next occurrence of word(s)

D. MISCELLANEOUS FUNCTIONS

ESC? or ESC-H	Display Help Screen
Control-C	Display control characters
Control-V	Enter next character verbatim
Control-R	Redisplay the screen
Control-Q	Quit
Control-O	Quit

III. TRANSMIT/RECEIVE

A. MAIN OPTIONS

(Return to main options list)

B. CONVERSATION

(Allows conversation from Transmit/Receive Menu)

- C. RECEIVE FROM THE HOME CONNECTION
(Receive a BTRAN formatted file)
- D. TRANSMIT TO THE HOME CONNECTION
(Transmit a BTRAN formatted file)
- E. TRANSMIT DISK FILE
(Transmit a disk file, converting each byte into 2 ASCII characters)
- F. TRANSMIT BUFFER
(Transmit the contents of the text buffer)

IV. DISK ACCESS

- A. MAIN OPTIONS
(Return to main options list)
- B. CATALOG
(Display list of files currently on the data disk)
- C. SAVE BUFFER
(Save text buffer to file on data disk)
- D. LOAD BUFFER
(Load a file from data disk into the text buffer)
- E. VIEW BUFFER
(Display contents of the text buffer; **F** and **S** keys change speed)
- F. RENAME
(Change the name of a disk file)
- G. DELETE FILE
(Delete a file on data disk)
- H. LOCK FILES
(Lock a file on data disk)
- I. UNLOCK FILES
(Unlock a file on data disk)
- J. SAVE CONFIG. TO DATA DISK
(Save the current configuration to a file on data disk)
- K. SAVE CONFIG. TO THE HOME CONNECTION DISK
(Save the current setup as **The Home Connection's** bootup configuration)
- L. LOAD CONFIG. FROM DATA DISK
(Load a configuration file previously saved to data disk)
- M. FREE SPACE
(Show number of unused sectors on the data disk)
- N. LOAD DRIVER
(Load a printer driver file from disk into location \$300+)

V. CONFIGURATION

- A. MAIN OPTIONS
(Return to main options list)
- B. SHOW CONFIGURATION
(Display **The Home Connection** current configuration)
- C. SELECT COMM SLOT
(Define slot which contains communications card)
- D. SERIAL CARD SPECIFICATION
(Define type of communications card in comm slot)

1. EXIT TO CONFIGURE
(Return to Configure menu)
2. MICROMODEM
(Expect Hayes Micromodem card in comm slot)
 - a. SET BAUD RATE
(Set transmission speed in bits per second)
 - b. SET DATA FORMAT
(Define data word format)
3. SUPER SERIAL CARD or //c
(Expect Apple Super Serial Card in comm slot)
 - a. SET PARITY
(Set data word parity: odd, even, or none)
 - b. SET DATA BITS
(Define data word format)
 - c. SET BAUD RATE
(Set transmission speed in bits per second)
 - d. SET CLOCK SOURCE
(Define clock source: internal or external)
 - e. SET STOP BITS
(Define data word format)
4. COMMUNICATIONS CARD
(Expect Apple Communications Card)
 - a. SET BAUD RATE
(Set transmission speed in bits per second)
 - b. SET DATA FORMAT
(Define data word format)
5. GENERIC 6850
(Expect 6850-based serial card in comm slot)
 - a. UART BASE ADDRESS
(Define the base address of Uart's registers)
 - b. SET PARITY
(Set parity of data word: odd, even or none)
6. GENERIC 6551
(Expect 6551-based serial card in comm slot)
 - a. UART BASE ADDRESS
(Define the base address of Uart's registers)
- E. PHONE NUMBERS
(Display/Change list of phone numbers)
- F. TRANSMIT TRANSLATE TABLE
(Display/Change Table used to translate characters being sent)
 1. EXIT TO CONFIGURE
(Return to Configure menu)
 2. LIST TRANSMIT TABLE
(Display the table)
 3. MODIFY TRANSMIT TABLE
(Change the table)
 4. CLEAR
(Create a table where each character translates to itself)
 - a. EXIT TO CONFIGURE
(Return to Configure menu)

- b. CLEAR TO UPPER CASE
(Create table which converts lower case to upper case)
 - c. CLEAR TO MIXED CASE
(Create table which does not convert lower case characters to upper case)
 - d. CLEAR STRAIGHT THROUGH
(Create table which does no translation)
- G. RECEIVE TRANSLATE TABLE
(Display/Change Table used to translate characters being received)
 - 1. EXIT TO CONFIGURE
(Return to Configure menu)
 - 2. LIST RECEIVE TABLE
(Display the table)
 - 3. MODIFY RECEIVE TABLE
(Change the table)
 - 4. CLEAR
(Create a table where each character translates to itself)
 - a. EXIT TO CONFIGURE
(Return to Configure menu)
 - b. CLEAR TO UPPER CASE
(Create table which converts lower case to upper case)
 - c. CLEAR TO MIXED CASE
(Create table which does not convert lower case characters)
 - d. CLEAR STRAIGHT THROUGH
(Create table which does no translation)
- H. CONTROL KEY MACROS
(Display/Change keyboard macros)
- I. CARRIAGE RETURN DELAY
(Define time to wait after each RETURN is sent)
- J. CONFIGURE DISK
(Define slot number and drive of user disk)
- K. CONFIGURE PRINTER
(Define printer slot, characters per line and setup string)
- L. CONFIGURE SCREEN
(Select screen type + width)
 - 1. 40 columns
 - 2. Videx 80 columns
 - 3. //e 80 columns
- M. CONFIGURE THC CONTROL CHARACTERS (THC=The Home Connection)
 - 1. **The Home Connection** Attention Key
(Define new attention control key)
 - 2. Print Screen Key
(Define control key which dumps contents of screen to printer)
 - 3. Start Character
(Define new start character)
 - 4. Stop Character
(Define new stop character)
- N. SET SHIFT KEY MOD
(Enable/disable shift key mod)

APPENDIX 2

Serial Cards and Data Formats

Basically, **The Home Connection** supports serial cards with two different types of UARTs, the Motorola 6850 or the Rockwell 6551 (or equivalents). It treats each type individually, with an interrupt driven routine for the 6551, and a psuedo-interrupt for the 6850. Interrupts on the 6850 weren't used, mainly because later versions of the Apple Comm Card do not include a trace for IRQ at the edge connector.

The Home Connection calculates the address of each register on the UART from two pieces of information (entered when **The Home Connection** is configured): the slot number of the card, and the UART's base address. The slot number provides the \$C0n0 portion of the address, while the base address provides the remainder. The base address is defined as the lowest address corresponding to the UART register normalized to slot 0 (\$8x).

This all depends on a 'normal' UART interface, with A0, A1, A2 or A3 connected to RS (register select) on the 6850, and with any pair of A0 thru A4 connected to RS0-RS1 in ascending order on the 6551.

Below is a summary of some of the more common serial cards and their base addresses. The lowercase 'n' in the addresses is calculated from the following formula:

$$n = (\$10 * \text{SLOT\#}) + \$80$$

NETWORKER MODEM: This card has a 6850 type UART, with a base address of \$8E. Registers are at the following addresses:

\$C0nE control/status register

\$C0nF transmit/receive data

APPLE COMM CARD: This card has a 6850 type UART, with a base address of \$8E. Registers are the same as for the NETWORKER modem.

APPLE SUPER SERIAL CARD: This card has a 6551 type UART, with a base address of \$88. Its registers are at the following addresses:

\$C0nC transmit/receive data

\$C0nD status register

\$C0nE command register

\$C0nF control register

MB COMM CARD: This card has a 6551 type UART, with a base address of \$8C. Its registers are the same as for the Apple Super Serial Card.

APPENDIX 3

BTRAN Transmission Format

This transmission format can be used to transmit any hexadecimal data. Specifically, it is used to transmit DOS files (of any filetype and any length), directly from one disk to another. The file is transmitted one byte at a time, exactly as it appears on the disk. The file is not translated in any way, but is sent verbatim, byte for byte, in hexadecimal. This results in fast and efficient transmissions.

The file is transmitted in 128 byte packets, where each packet contains:

- 1 byte containing the character count
- 125 bytes containing data from the file
- 1 byte containing checksum information
- 1 byte containing a carriage return

As **The Home Connection** receives each packet, it calculates a checksum and compares it with the checksum it receives. If the two checksums match, the packet was received ok, and **The Home Connection** sends back a '::GG::' message to the sender, telling it to transmit the next packet. If the checksums do not match, **The Home Connection** sends back a '::RR::' message, and the sender then retransmits the packet.

APPENDIX 4

ASCII Converted Format (ACF)

This format is used to transmit disk files when the receiving computer cannot receive BTRAN Transmission Format. Like the BTRAN format, the file is sent one byte at a time, exactly as it appears on disk, but each file byte is converted into its ASCII equivalent; i.e. a \$C1 byte is transmitted as a character 'C' followed by a character '1' followed by a space.

A one-sector binary file containing the following hex bytes:

```
00 03 0D 00 20 64 A7 B0 05 A9 00 A8 91 40 AD C5
B5 00 00 00 00 00 00 00 00 00 00 00 00 00 00
(followed by 224 more $00 bytes)
```

would be transmitted exactly the way it's printed above; the characters '0', '0', space, '0', '3', space, ... 'C', '5', RETURN 'B', '5', space, and so on until the last '0', '0', RETURN.

The receiving program is responsible for capturing the ACF format file (in memory, or on disk, or to a hardcopy on a printer). When **The Home Connection** transmits the file, it does not send the filename or any other information about the file.

ACF format assumes that the person receiving the file is familiar with the way in which Apple's Disk Operating System (DOS) stores files on a disk. For more information, refer to the DOS Manual.

