# ATARI® 400/800™ COMPUTER SYSTEM

# TELELINK™ II

# OWNER'S GUIDE

# Table of Contents

**W**elcome to the world of instant information! Use your **ATARI**® **TeleLink**™ **II** program cartridge to talk to computers all over the world with your ATARI 830™ Acoustic Modem or ATARI 835™ Direct Connect Modem. Enjoy hours of adventure exploring the nearly infinite range of information, education, and entertainment available at your fingertips. Enjoy information services such as the COMPUSERVE, INFORMATION SERVICE, the DOW JONES NEWS/RETRIEVAL Service, and THE SOURCE, AMERICA'S INFORMATION UTILITY. Use electronic mail and bulletin boards to reach people and services across the country. Read your favorite section of a distant newspaper, or keep current on your stocks—all with the press of a few keys. You'll discover how easy and convenient it can be to stay on top in this ever-changing world with TeleLink II.

TeleLink II is designed to work with both the ATARI 830 Acoustic Modem and the ATARI 835 Direct Connect Modem. In this manual you'll find easy-to-follow setup instructions for the ATARI 830 Acoustic Modem. We'll show you how to sign on to COMPUSERVE, THE SOURCE and the DOW JONES Information Service using TeleLink II. You'll also find helpful definitions, and the answers to many frequently asked questions to help even the beginning user become an expert in telecommunications.
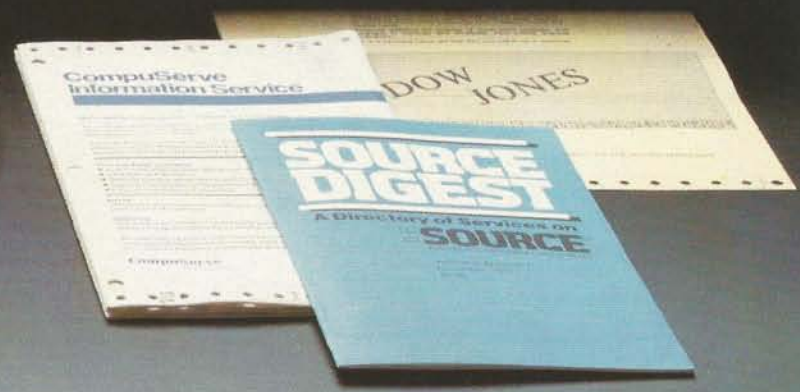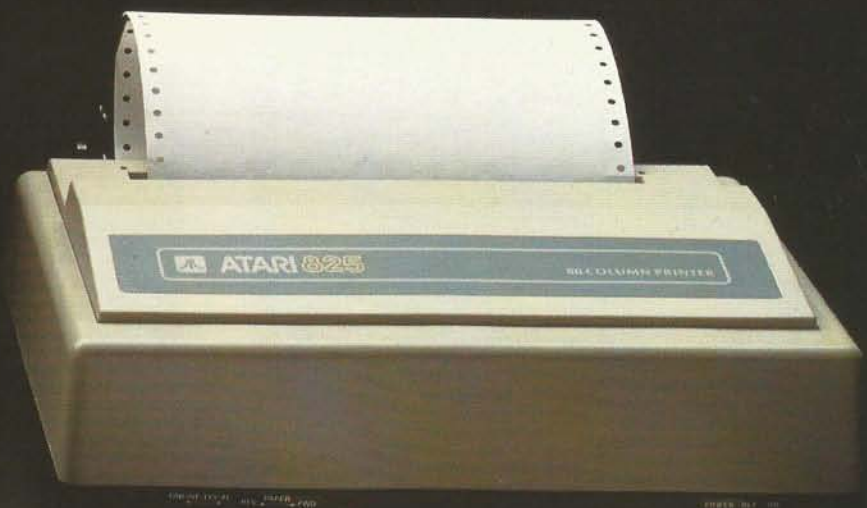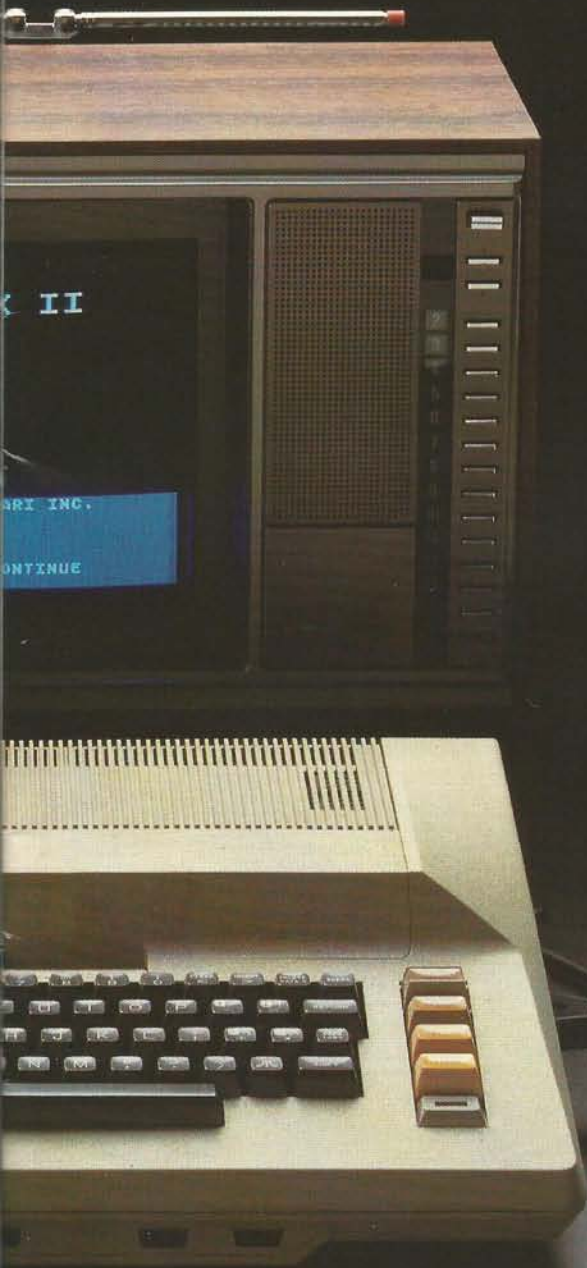
**1** Place your ATARI 830 Acoustic Modem, the **ATARI 850™ Interface Module,** and their cords next to the computer.

**2** Plug one end of the modem's power cord into the power-in jack on the side of the modem. Plug the other end into an electrical outlet.



**3** Plug the 25-pin connector of the modem cable into the 25-pin connector port on the right side of the modem.



Plug the other end of the modem connector cable into SERIAL PORT 1 of the interface module.

**4** Plug the interface module's I/O cable into one of the front connector ports on the interface module.



Plug the other end of the I/O cable into the connector port on the computer or other peripheral (except the **ATARI 410™ Program Recorder** or **ATARI 825™ Printer**).

**Note:** The **ATARI 810™ Disk Drive** may remain attached to your computer system as long as you do not turn it on while using the acoustic modem.



**5** Pull the door release forward on the computer to open the cartridge door.



Push the TeleLink II program cartridge firmly into the cartridge slot (LEFT slot on the **ATARI 800™ Home Computer**) with the label facing you. Close the cartridge door.

**6** If using an **ATARI 820™ Printer** or **ATARI 822™ Printer,** plug the printer's connector cable into a free connector port on the interface module or other peripheral (except the Program Recorder). Refer to the *ATARI 820* or *ATARI 822 Printer Operator's Manuals* for more detailed setup instructions.

If using an ATARI 825 Printer, plug the printer's connector cable into the parallel interface port on the right side of the interface module. Refer to the *ATARI 825 80-Column Printer Operator's Manual* for more detailed setup instructions.

**7** Push the power switch on the front of the interface module to the ON position.

**8** Set the FULL/TEST/HALF (F/T/H) switch on the acoustic modem to FULL.



**9** Set the ORIG/OFF/ANS switch on the acoustic modem to ORIG. The READY light should light up. Turn on your TV.

**10** Turn on your ATARI Computer. You'll hear clicking and beeping sounds as TeleLink II and the interface module activate. The screen displays the TeleLink II Start-Up display.

**Note:** If you've never stored information into TeleLink II before, the message STORED INFORMATION HAS BEEN LOST – PLEASE ENTER NEW STORED INFORMATION appears on the screen. DON'T PANIC! This simply means that the memory in your TeleLink II cartridge hasn't been used. We'll show you how to store data in the cartridge memory on the next few pages.



TELELINK II

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PRESS RETURN TO CONTINUE

TeleLink II is a program cartridge that allows your ATARI Computer to send and receive information over standard telephone lines. TeleLink II can be used with either the ATARI 835 Direct Connect Modem or the ATARI 830 Acoustic Modem to communicate with information services, timesharing services, or other ATARI Home Computers. TeleLink II can save the name, telephone number, and sign-on codes of two services in the cartridge memory. TeleLink II also performs the automatic dialing and signing-on tasks for you, if you are using an ATARI 835 Direct Connect Modem. Or, if you prefer, you can manually dial when using either the direct connect modem or an ATARI 830 Acoustic Modem.

This diagram is an overview, showing the steps involved for each of the TeleLink II selections. You'll find more information about each menu selection on the following pages. When the TeleLink II Start-Up screen is displayed, press the `RETURN` key to display the TeleLink II Menu. Choose one of the six selections by typing its corresponding number on the keyboard.

**Note:** If you're using the ATARI 835 Direct Connect Modem you can select any of the first five menu selections. If you're using the ATARI 830 Acoustic Modem you *cannot* select menu selections 1, 2, or 3 to dial directly from the computer.

**Note:** Many of the following screens illustrate the relevant information only. The telephone numbers used are fictitious numbers used as examples only.

PLEASE SELECT AN OPTION

1 DIAL (service #1)
2 DIAL (service #2)
3 DIAL FROM KEYBOARD
4 MANUAL DIALING COMPLETE
5 CHANGE STORED INFORMATION
6 CHANGE LINE SPEED: 300 /1200

**Automatic Dialing of Information Service.** If using the direct connect modem, you may use your TeleLink II cartridge to store and automatically dial two separate information service numbers. Select automatic dialing after you have entered the information in the cartridge memory using menu selection 5.

**Note:** You cannot utilize this dialing function if using an ATARI 830 Acoustic Modem. If selected, TeleLink II sounds a bell.

> DIALING 898 765-4321

Display and dial the telephone number of service #1 or #2.

> DIALING 898 765-4321...DIALED

Telephone number dialed.

---

**Dialing From the Computer Keyboard.** If using an ATARI 835 Direct Connect Modem, you may dial a service by entering the telephone number on the keyboard.

**Note:** You cannot utilize this function if using an ATARI 830 Acoustic Modem. If selected, TeleLink II sounds a bell.

> PLEASE ENTER THE NUMBER
> 1*204 455-1098

Enter the telephone number of the desired service and press RETURN

> PLEASE ENTER THE NUMBER
> 1*204 455-1098
> DIALING 1*204 455-1098...DIALED

TeleLink II displays and dials the telephone number of the service.

---

**Manual Dialing With the Telephone.**

Pick up the telephone handset and dial telephone number of desired service.



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**Change Information Stored in Memory.**

> PLEASE SELECT THE SERVICE TO CHANGE
> 1
> 2
>
> PRESS OPTION TO RETURN TO MAIN MENU

Type 1 to store information for service #1, or type 2 to store information for service #2.

> SERVICE #2
> ID:
> BANK
> PHONE NUMBER:
> 1*555-7733
> STORED SEQ:
> A]:C]:BANKER]:QX734
>
> PRESS OPTION TO RETURN TO MAIN MENU

Enter the identification, phone number, and stored sequence. Press the RETURN key after each entry.

When a communication carrier tone is detected, TeleLink II connects to the service and sends the stored sequence.

A communication carrier tone is not detected, therefore, no connection to the service can be made. Press RETURN to return to the menu, and select option 1 or 2 again.

When a communication carrier tone is detected, TeleLink II connects to the service and awaits a sign-on prompt from the service. You may now enter your sign-on code or send a stored sequence.

If a communication carrier tone is not detected, no connection to the service can be made. Press RETURN to return to the menu and select option 3 again.

When you hear the high-pitched carrier tone, type **4** on the computer keyboard and place the handset into the acoustic couplers. If you don't hear the tone, you haven't made a connection. Hang up and dial again.

When a communication carrier tone is detected, TeleLink II connects to the service and awaits a sign-on prompt from service. You may now enter your sign-on code or send a stored sequence.

```
             SERVICE #2
ID:
BANK
PHONE NUMBER :
1*555-7733
STORED SEQ :
A]:C]:BANKER]:QX734
ABOVE INFORMATION CORRECT (Y/N)?[]
PRESS OPTION TO RETURN TO MAIN MENU
```

```
PLEASE SELECT AN OPTION
1  DIAL (service #1)
2  DIAL (service #2)
3  DIAL FROM KEYBOARD
4  MANUAL DIALING COMPLETED
5  CHANGE STORED INFORMATION
6  SET LINE SPEED: 300 /1200
```

Type **Y** if information is correct. If the memory is full, an INSUFFICIENT STORAGE SPACE message is displayed. Press RETURN to go back and shorten the information.

If the information is incorrect, type **N** to change stored information

You may now make another selection from the TeleLink II Menu.

## Automatic Dialing of an Information Service.

**Note:** You cannot utilize this function if using an ATARI 830 Acoustic Modem. If selected, TeleLink II sounds a bell.

Type 1 to display and dial the telephone number for service #1, or type **2** to display and dial the telephone number for service #2. (Services #1 or #2 are any computer or computer service of your choice.) If you haven't stored the name, telephone number, or stored sequence for service #1 or #2 in the cartridge memory, choose menu selection 5, "Change Information Stored," page 8.

When the direct connect modem detects a carrier tone, TeleLink II "signs-on" to the service by automatically sending the stored sequence for that service.

If the direct connect modem doesn't detect a carrier tone within 45 seconds, TeleLink II "hangs up" the telephone line and displays a NO CONNECTION ERROR message. Press the `RETURN` key to return to the menu.

Pressing the `SYSTEM RESET` key returns you to the Start-Up display. Or, to stop the automatic dialing in progress, press the `ESC` key before connecting to the service. Once connected, the `SYSTEM RESET` key returns you to the TeleLink II Menu. Simultaneously pressing `OPTION` and `ESC` disconnects you from the telephone line.

## Dial Service From Computer Keyboard.

**Note:** You cannot utilize this dialing function if using an ATARI 830 Acoustic Modem. If selected, TeleLink II sounds a bell.

Type **3** to dial a service other than a stored telephone number. Enter a telephone number on the keyboard and press the `RETURN` key to begin automatic dialing. Only numbers 0 through 9 and asterisks (*) are accepted; all other entries sound the bell. Use an asterisk to insert a 3-second pause in the dialing sequence—for example, wherever you have to wait for another dial tone before continuing.

When the direct connect modem detects a carrier tone, you're ready to sign on to the service. Read "Connecting to the Computer Services," page 12 of this manual, for further instructions.

If your direct connect modem doesn't detect a carrier tone within 45 seconds, TeleLink II hangs up the telephone line and displays a NO CONNECTION ERROR message. Press the `RETURN` key to return to the TeleLink II Menu.

Pressing the `SYSTEM RESET` key returns you to the Start-Up display. Or, to stop the automatic dialing in progress, press the `ESC` key before connecting to the service. Once connected, the `SYSTEM RESET` key returns you to the TeleLink II Menu. Simultaneously pressing `OPTION` and `ESC` disconnects you from the telephone line.

## Manual Dialing With the Telephone.

To dial a service manually, pick up the telephone handset and dial the telephone number. When you hear a high-pitched carrier tone in the earpiece, type **4** on the keyboard and place the handset into the acoustic couplers. To sign on to the service, read "Connecting to the Computer Services," page 12, for further instructions.

If you don't hear a carrier tone, hang up and dial again. To return to the Start-Up display press the `SYSTEM RESET` key.

## Change Information Stored in Memory.

Type **5** to enter or change stored information for service #1 or service #2 in the cartridge memory. When asked to select the service to change, type **1** for service #1 or **2** for service #2. Press the `OPTION` key to return to the TeleLink II Menu.

The service information is displayed in three fields: identification (ID), phone number, and stored sequence. The fields are blank or filled with random characters if the cartridge hasn't been used before.

The only cursor control keys you can use when entering stored information in the three fields are:

| | |
|---|---|
| `CTRL` `INSERT` | To insert a character |
| `CTRL` `DELETE BACK S` | To delete a character |
| `DELETE BACK S` | To backspace |
| `CTRL` ← | To move the cursor left |
| `CTRL` → | To move the cursor right |

To enter or change the stored information:

1. Enter the name of the service, using a maximum of 25 characters. Press the `RETURN` key.

2. Enter the telephone number of the service, using a maximum of 36 characters. Press the `RETURN` key. Only numbers 0 through 9 and asterisks (*) are accepted; all other entries sound the bell. Use an asterisk to insert a 3-second pause in the dialing sequence wherever you have to wait for another dial tone before continuing. To insert pauses longer than 3 seconds, use multiple asterisks.

3. Enter the stored sequence, using a maximum of 110 characters. Press the `RETURN` key.

   *The stored sequence is normally used for your unique sign-on code to the service.* (Because each sign-on code is unique, do not copy the sequences in this manual. Contact the service's customer support center for your particular sign-on code.)

Key combinations that produce embedded carriage returns, pauses, or control characters within a stored sequence are shown in the following chart:

| Key Combination | Displays on Screen | Function |
|---|---|---|
| [SHIFT] ] | ] | Pause character |
| [ESC] [RETURN] | ↰ | Carriage return |
| [CTRL] [ ]* | Inverse video character | Control character |

*See the ASCII Character Codes in the back of the manual for valid control characters.

When TeleLink II encounters a pause character ( ] ) in the sequence, transmission of the sequence stops until the character immediately following the "]" is received from the information service or entered from the keyboard during the sign-on sequence. Put a pause character before a sign-on code or command if you:

- do not want it sent immediately upon connection
- need time to enter data on the keyboard
- must await a response from the service

A stored sequence using embedded returns and pause characters might look like this example:

**A:]:C↰]:BANKER↰]:AX734↰**

In this example, pause characters are embedded wherever you must wait for the service to send the sign-on prompts. Following each "]" character is a colon. A colon is used because it's the last character in the sign-on prompts sent from the service. Reception of a colon from the service signals TeleLink II to continue sending the stored sequence until the end of the sequence or the next "]" character. You can override the pause by entering the ":" on the keyboard yourself.

4. A verification request is displayed next. If the information is correct, type **Y** and press the [RETURN] key. TeleLink II stores the information in memory and returns you to the TeleLink II Menu. If there isn't enough memory space for the information in the cartridge memory, TeleLink II displays an INSUFFICIENT MEMORY SPACE ERROR message. Press the [RETURN] key to shorten the information. If the data is incorrect, type **N** and press the [RETURN] key to change the information.

**Change Line Speed: 300/1200**

TeleLink II may be used with a 1200 bit-per-second, full-duplex modem, connected to SERIAL PORT 1 on the ATARI 850 Interface Module. Type **6** to use TeleLink II with a 1200 bit-per-second modem. The speed shown in inverse video is the current setting of the TeleLink II communications line speed.

Both the acoustic modem and the ATARI Direct Connect Modem are compatible with the Bell 103* Modem and operates at 300 bits per second, allowing you to communicate with most computers and information services. If connecting to a service other than COMPUSERVE, THE SOURCE, and DOW JONES, contact the service for modem compatibility and sign-on instructions.

When TeleLink II detects a carrier tone from a service, it clears the screen, and sends the stored sequence.

The following are sign-on instructions for COMPUSERVE, THE SOURCE, and DOW JONES NEWS/RETRIEVAL Service. If using another service, refer to the directions supplied by that service for its sign-on instructions.

*Bell 103 is a product of American Telephone and Telegraph.

## Connecting to the COMPUSERVE INFORMATION SERVICE.

To sign-on to COMPUSERVE you need:

- local Tymnet or COMPUSERVE network telephone number
- your User Identification number
- your secret password

Call toll free 800/538-8543 (in California, call 800/672-1404) for your local access telephone numbers. The User ID number and secret password are included in the snap pack.

Call one of the local telephone numbers to sign on to COMPUSERVE. Enter the following information when requested by the service. See the code on the next page if you wish to store the sign-on code in the cartridge memory.

| Screen Message | Type In | Helpful Hints |
|---|---|---|
| please type your terminal identifier | A | The A doesn't display on the screen. (Prompt bypassed if using the COMPUSERVE communications network.) |
| please log in: | CIS02 [RETURN] | If using Tymnet, enter this sequence. |
| | *or* | |
| | [CTRL] C | If using the COMPUSERVE communications network, hold down the [CTRL] key and type **C**. |
| user ID: | ######, ### [RETURN] | Enter the ID number from your snap pack. |
| password: | xxxxxxxxxxx [RETURN] | Your secret password doesn't display on the screen. |
| KEY ⟨ENTER⟩ FOR NEXT PAGE | [RETURN] | The ATARI Computer doesn't have an ENTER key. Press the [RETURN] key instead. |

To store the sign-on code in the cartridge memory, select option 5 from the TeleLink II Menu. Store the code as a stored sequence using one of the following formats:

```
A]:CIS02⌐]:####,###⌐]:xxxxxxxxxxx⌐
```
or
```
C]: #####,###⌐]: xxxxxxxxxx⌐
```

If using Tymnet, enter this sequence.

If using the COMPUSERVE communications network enter this sequence.

**Note:** The ⌐ character is generated by pressing `ESC`, then `RETURN`.

If you connected to COMPUSERVE with the automatic dialing option, the sign-on sequence is sent from memory immediately upon connection. If dialing from the computer keyboard or manually from the telephone, send the sign-on sequence by pressing the `OPTION` key and typing 1 or 2 (see page 10).
When COMPUSERVE displays a menu and the ! prompt, type **5** and press the `RETURN` key to select User Information. Then select the Command Summary from the User Information Menu. When you see the message KEY S OR <ENTER> TO CONTINUE, either press the `RETURN` key to continue, type **H** `RETURN` for the Help display, or **T** `RETURN` for the Top Menu.
For a summary of the COMPUSERVE commands, type **H** `RETURN` for the Help display.

## Command Summary

| | |
|---|---|
| T — Top Menu page | R  — Resend |
| M — Previous menu | S n — Scroll from item "n" |
| F — Forward a page | G n — Go directly to page "n" |
| B — Back a page | N  — Display next menu item |
| H — Help | P  — Display previous menu item |

To sign-off from COMPUSERVE, type **BYE** and press the `RETURN` key.
For more information about COMPUSERVE and its services, contact:

CompuServe Information Service
5000 Arlington Centre Blvd.
Columbus, Ohio 43220
614/457-8600

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# Connecting to the Computer Services

## Connecting to THE SOURCE, AMERICA'S INFORMATION UTILITY.

To sign on to THE SOURCE you need:

- local Tymnet, Telenet, or direct telephone number
- your host computer number (10, 11, 12, or 13)
- your personal account number
- your secret password

Call THE SOURCE Customer Support at 800/336-3366 for the above information.

To sign on to THE SOURCE using either Tymnet or Telenet, call the local telephone number. Enter the following information when requested by the service. See the code on the next page if you wish to store the sign-on code in the cartridge memory.

| Screen Message | Type In | Helpful Hints |
|---|---|---|
| *To connect using Tymnet:* | | |
| **please type your terminal identifier** | A | The A doesn't display on the screen. |
| **please log in:** | SOURCE##; PRIM; RETURN | Replace the ## with your host computer number. The PRIM; does not display on the screen. |
| *To connect using Telenet:* | | |
| ■ | RETURN RETURN | Type RETURN twice. |
| **TERMINAL =** | D1 RETURN | D1 is your terminal identifier code. |
| @ | C 30124 RETURN | This is your computer system number. |
| *Then, to connect to THE SOURCE:* | | |
| **Please Type 'ID' Then Your Number and Password>** | ID xxxxxx yyyyyy RETURN | Type ID and press the space bar. |
| | | Type your six-digit account number and press the space bar. |
| | | Type your secret password, then press the RETURN key. |
| **Thank you, You Are Now Signed On To System ##** | | ## is your host computer number. |

To store the sign-on code in the cartridge memory, select option 5 from the TeleLink II Menu. Store the code as a stored sequence using the following format:

**A]:SOURCE##; PRIM;ꞁ]>ID ##### yyyꞁ**

Note: The ꞁ character is generated by pressing ESC, then RETURN.

If you connected to THE SOURCE with the automatic dialing option, the sign-on sequence is sent from memory immediately upon connection. If dialing from the computer keyboard, or manually from the telephone, send the sign-on sequence by pressing the OPTION key and typing 1 or 2 (see page 10).

THE SOURCE displays the time and date of your current and last usage. When the Main Menu displays, type 1 RETURN to show the Overview of the service. When returned to the menu, type **2** and press RETURN for Instructions. When the -MORE- or -END- prompts display, press the RETURN key to continue, or type **H** RETURN for Help, or **M** RETURN for the Menu.

The SOURCE's programs can be accessed from the menu or command (system) level. The menu commands are:

---

### Menu Commands

| | |
|---|---|
| M or MENU | — Menu |
| P | — Previous menu |
| F N | — Forward "N" screens |
| B N | — Back "N" screens |
| H or HELP | — Help |
| Q or QUIT | — Enter command level |

---

To enter the command level, either type **4** RETURN from the first menu, type **QUIT** RETURN, or hold down the SHIFT key and press the BREAK and RETURN keys.

You're in command level when you see the -> prompt. The system commands you can enter at the -> prompt are:

---

### System Commands

| | |
|---|---|
| MENU | — Leave command level and return to menu |
| HELP | — Help |
| QUIT | — Enter command level |
| DATA LIBALL | — Index |
| DATA SYSCOM | — For a more complete list of system commands |
| SYSINFO | — Information on programming and the editor |
| TODAY | — Latest system announcements |
| OFF | — Sign off |

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To sign off from THE SOURCE, type: **OFF** RETURN in command level.

For more information about THE SOURCE and its services, contact:

Source Telecomputing Corporation
1616 Anderson Rd.
McLean, Virginia 22102
703/821-6660

## Connecting to DOW JONES NEWS/RETRIEVAL Service

To sign on to DOW JONES you need:

- local Tymnet or Telenet network telephone number
- your User Identification Code
- your secret password

Call toll-free 800/538-8543 (in California, call 800/672-1404) for your local telephone numbers. To obtain your password call 1-800/257-5114 (in New Jersey, call 609/452-1511) and give the confidential User Identification Code listed on your password certificate.

To sign on to DOW JONES using either Tymnet or Telenet, call the local telephone number. Enter the following information when requested by the service. See the code on the next page if you wish to store the sign-on code in the cartridge memory.

| Screen Message | Type In | Helpful Hints |
|---|---|---|
| *To connect using Tymnet:* | | |
| **please type your terminal identifier** | A | The A doesn't display on the screen. |
| **please log in:** | CTRL R DOW1;; | The CTRL R and the second semicolon don't display on the screen. |
| *To connect using Telenet:* | | |
| ■ | RETURN RETURN | Type RETURN twice. |
| **TERMINAL =** | RETURN | |
| @ | C 60942 RETURN | This is your computer system number. |
| *Then, to connect to DOW JONES:* | | |
| **WHAT SERVICE PLEASE?** | DJNS RETURN | |
| **ENTER PASSWORD** @@@@@@@@@@ | XXXXXXXXXX RETURN | Enter your 10-character password and press the RETURN key. The password doesn't display on the screen. |
| **ENTER QUERY** | | Enter a command to access desired information. |

To store the sign-on code in the cartridge memory, select option 5 from the TeleLink II Menu. Store the code as a stored sequence using the following format:

`A]:ⓡDOW1;;]?DJNS ]@xxxxxxxxxↄ`

**Note:** The ↄ character is created by pressing `ESC`, then `RETURN`.

If you connected to DOW JONES with the automatic dialing option, the sign-on sequence is sent from memory immediately upon connection. If dialing from the computer keyboard, or manually on the telephone, send the sign-on sequence by pressing the `OPTION` key and typing 1 or 2 (see page 10).

Enter a query command (described in the DOW JONES Information Pack supplied with TeleLink II) to request information. If you enter a command incorrectly, just press the `RETURN` key and re-enter the command. To interrupt a display at any time, hold down the `SHIFT` key and press the `BREAK` key.

To disconnect from the service, type **DISC** and press the `RETURN` key. *DOW JONES automatically disconnects if you haven't entered any commands in over two minutes.*
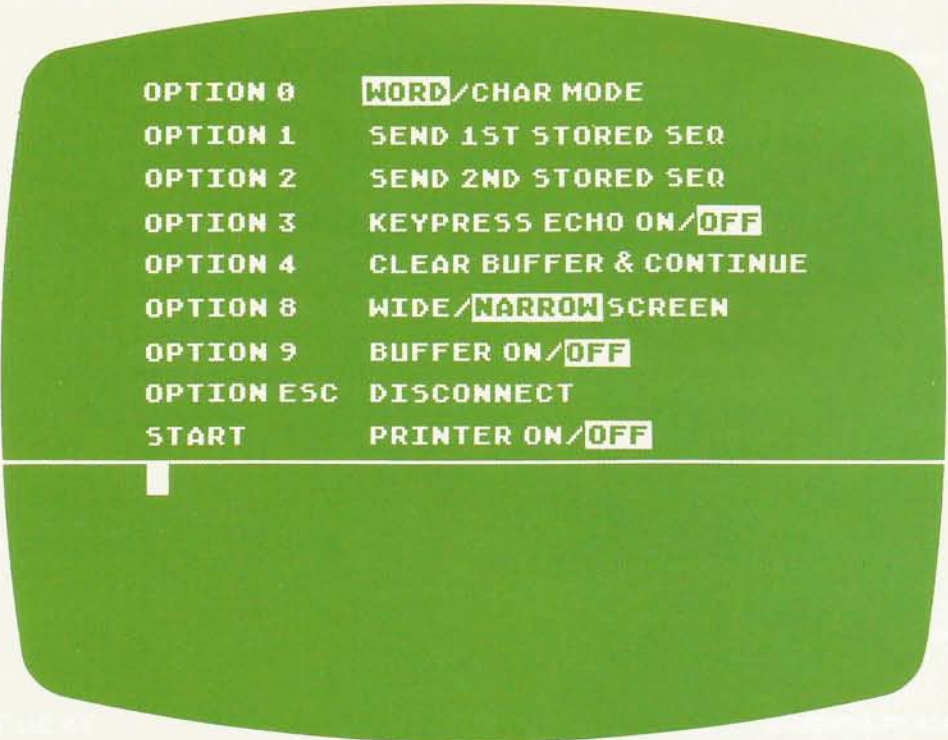
For more information about DOW JONES and its services, contact:

Dow Jones & Company
Information Services Group
Post Office Box 300
Princeton, New Jersey 08540
1-800-257-5114 (New Jersey 609-452-1511)

# Special Key Controls

Although most conventions for communication are determined by the service you're using, the TeleLink II key-controls enable you to use your computer system more flexibly. Pressing certain keys will send the sign-on code for two services, control the screen display, turn the printer on and off, disconnect from the service, and save characters sent from the service in the memory "buffer." (The memory buffer is a section of the computer's memory reserved for storing displayed characters.)

The 10 key-controls are shown in the Help display. **To get the Help display, connect to a service and press the** <span style="background:gray">SELECT</span> **key.** You'll see the key-controls listed on the left and their functions on the right. The words displayed in inverse video indicate the *current* mode of operation. Press the key-controls to the left to switch to the other mode.

```
OPTION 0      WORD/CHAR MODE
OPTION 1      SEND 1ST STORED SEQ
OPTION 2      SEND 2ND STORED SEQ
OPTION 3      KEYPRESS ECHO ON/OFF
OPTION 4      CLEAR BUFFER & CONTINUE
OPTION 8      WIDE/NARROW SCREEN
OPTION 9      BUFFER ON/OFF
OPTION ESC    DISCONNECT
START         PRINTER ON/OFF
```

The Help Display

**`OPTION`** 0  Word/Character Mode

In *word mode,* any word extending beyond the end of the line is automatically moved to the next line. In *character mode,* any word extending beyond the end of the line is broken apart and continued on the following line. Hold down the **`OPTION`** key and type **0** (zero) to switch between word and character mode. Each time you press **`OPTION`** and type **0** the message WORD MODE or CHARACTER MODE displays on the screen.

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**`OPTION`** 1 and **`OPTION`** 2  Send Stored Sequence for Service #1 or Service #2

When connected to the service, hold down the **`OPTION`** key and type **1** to transmit the stored sequence for service #1, or type **2** to transmit the stored sequence for service #2. The message SENDING STORED SEQUENCE is displayed.

When TeleLink II encounters a pause character ( ] ) in the stored sequence, transmission stops until the character following the "]" is received from the ser-vice. During a *pause* in transmission, you may send other characters (except the character following the "]") by entering them on the keyboard. Sequence transmission resumes when the character following the "]" is received from the service, or the character following the "]" is entered on the keyboard yourself. Transmission continues until the end of the sequence or the next "]" character.

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**`OPTION`** 3  Keypress Echo

In *keypress echo* on mode, the screen displays characters as they are typed on the keyboard. In *keypress echo* off mode, characters typed on the keyboard are sent directly to the service, where they are "echoed" back to your screen. If characters are not displayed on the screen as you type, switch to keypress echo on mode by holding down the **`OPTION`** key and typing **3**. The screen displays the message KEYPRESS ECHO ON followed by any characters you type. If two characters display on the screen for each key pressed, switch to keypress echo off mode by holding down the **`OPTION`** key and typing **3** again. The screen displays the message KEYPRESS ECHO OFF, followed by one of each character you type.

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**`OPTION`** 4  Clear Memory Buffer and Continue

The screen message BUFFER FULL—PRESS OPTION 4 TO CLEAR means that the memory buffer is full and cannot store any more incoming characters from the service. To clear the memory buffer and continue storing characters, press the **`OPTION`** key and type **4**.

**Note for Advanced Users:** When the memory buffer is full, TeleLink II transmits an XOFF character. If the service understands XOFF as "stop sending," communication stops until the buffer is cleared. When you press **`OPTION`** and type **4** to clear the buffer, TeleLink II transmits an XON character to the service.

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**`OPTION`** 8  Wide/Narrow Screen

TeleLink II displays a *wide screen* with 40 characters per line, or an alternate *narrow screen* with 37 characters per line. If characters are cut off by the sides of the television screen, switch to the narrow screen by holding down the **`OPTION`** key and typing **8**. The screen displays the message NARROW SCREEN. To change back to the wide screen, hold down the **`OPTION`** key and type **3** again. The screen displays the message WIDE SCREEN.

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**`OPTION`** 9  Memory Buffer On/Off

To store incoming characters in the memory buffer, hold down the **`OPTION`** key and type **9**. This clears the screen, displays the message MEMORY BUFFER ON, and begins storing incoming characters in the memory buffer. To turn the memory buffer off, hold down the **`OPTION`** key and type **9** again. The screen displays the message MEMORY BUFFER OFF. If the memory buffer is turned on again after being turned off, the new characters are appended to the existing buffer contents.

To *look backward through the memory buffer,* hold down the **`CTRL`** key and type **−**. Characters stored in the memory buffer move down the screen until either the beginning of the buffer is reached, or until you press **`CTRL`** and type **=**. As you look backward, incoming characters are stored at the end of the memory buffer.

To *look forward* through the memory buffer, hold down the **`CTRL`** key and type **=**. Characters stored in the memory buffer move up the screen either until the end of the buffer is reached, or until you press **`CTRL`** and type **−**. As you look forward, incoming characters are stored at the end of the buffer.

**Note for Advanced Users:** When the memory buffer is turned off following the BUFFER FULL message, TeleLink II transmits an XON character to the service.

# Special Key Controls

**OPTION** **ESC** **Disconnect**

After signing off from the service, hold down the **OPTION** key and press the **ESC** key to disconnect from the service. The message LINE DISCONNECTED—

PRESS SYSTEM RESET FOR MENU is displayed on the screen Press the **SYSTEM RESET** key to return to the TeleLink II Menu.

---

**START** **Printer On/Off**

Press the **START** key to start printing incoming characters on the printer. The message PRINTER ON displays on the screen, but not on the printer. If the printer is not connected, or is turned off, the message PRINTER ERROR displays on the screen.

To turn off the printer, press the **START** key again. The message PRINTER OFF displays on the screen.

The printer will finish printing the current line before it turns off.

**Note:** The printer won't print properly unless the service understands the XON and XOFF characters. Contact the service to see if it supports these characters.

---

**SHIFT** **BREAK** **Transmit 1/2-Second Break Signal to Service**

To stop the current activity without disconnecting the communications line, hold down the **SHIFT** key and press the **BREAK** key. This sends a 1/2-second break signal to the service.

---

**SELECT** **Help Display**

Press the **SELECT** key to see the Help display. When the Help display is shown, characters sent to and received from the service continue to display on the bottom 12 lines of the screen. To return to the normal screen press the **SELECT** key again.

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# In Case of Difficulty

**Question:** When I turn on my computer the screen displays a LINE INTERFACE ERROR message. What does this mean?

**Answer:** LINE INTERFACE ERROR means the modem is off, or the computer was turned on before the modem. Turn off both. Turn on the modem, then the computer. (If you don't have a direct connect modem, your interface module was turned off.)

**Question:** When I turn on my computer the screen displays a STORED INFORMATION HAS BEEN LOST message. What happened?

**Answer:** This message means that the TeleLink II cartridge memory is empty. Press the `RETURN` key to display the menu. Type **5** to enter service information into the cartridge memory.

**Answer:** If there is data in the cartridge memory and this message appears, it indicates that there's a problem with your cartridge. Try again to store the data, and if the message reappears, contact your ATARI Factory Authorized Service Center, or call ATARI Customer Service, toll-free, at 800-538-8543 (in California 800-672-1404).

**Question:** Following the verification request to store service information, the screen displays an INSUFFICIENT MEMORY SPACE error message. What does this mean?

**Answer:** There isn't enough space in the TeleLink II cartridge memory to store the service information. Press the `RETURN` key to re-edit and shorten the amount of information.

**Question:** The telephone number to the service has been dialed and instead of connecting, I get a NO CONNECTION ERROR message on the screen. Why?

**Answer:** TeleLink II isn't receiving a carrier tone from the service and cannot connect. Press the `RETURN` key to return to the menu to redial.

**Question:** TeleLink II receives a carrier tone but the direct connect modem's ON-LINE light or the acoustic modem's READY light doesn't light up. What should I do?

**Answer:** Make sure you have the right telephone number. If you do, press the `RETURN` key to return to the menu to redial.

**Answer:** The carrier signal may be too weak. Redial.

**Question:** TeleLink II is already connected to the service, and a LINE DISCONNECT ERROR appears on the screen. What should I do?

**Answer:** The telephone line has been disconnected. Press the `SYSTEM RESET` key to return to the menu to redial.

**Question:** What should I do if I establish a connection with the service and nothing happens? Or what if random characters appear all over the screen?

**Answer:** You have a bad telephone connection. Hang up and dial again.

**Question:** I am entering valid characters and the service doesn't understand, what should I do?

**Answer:** There is a parity problem between TeleLink II and the service's computer. ATARI Computers transmit in *even parity* only. Contact the service to resolve the problem. **Note:** TeleLink II ignores parity on reception.

**Question:** As I type on the keyboard nothing appears on the screen. What's wrong?

**Answer:** The service isn't "echoing" the characters you type back to you. Switch to keypress echo on mode by pressing the `OPTION` key and typing **3**.

---

**Question:** As I type on the keyboard, each character appears twice on the screen. What's wrong?

**Answer:** Both your computer and the service are "echoing" the characters you transmit. Switch to keypress echo off mode by pressing the `OPTION` key and typing **3**.

---

**Question:** When I press the `START` key to start the printer, a PRINTER ERROR message appears on the screen. Why didn't the printer start?

**Answer:** Either the printer isn't connected to the system, it is turned OFF, or it is not *on-line*.

---

**Question:** When I use my printer while signed on to DOW JONES, I often lose characters? How can I prevent this?

**Answer:** The XON and XOFF characters may not be recognized by the service. If using a Tymnet communication line, precede the user name (DOW1) by typing `CTRL` **R** when signing on.

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**Question.** When I turn on my ATARI 835 Direct Connect Modem, the ON-LINE light continues to flash on and off.

**Answer:** The modem has detected an internal error during its self-test. Contact your ATARI Factory Authorized Service Center.

# Helpful Definitions

**Acoustic Modem:** An acoustic modem receives signals from the telephone earpiece and must be physically connected to the telephone earpiece for communication. All dialing and connecting tasks must be done manually.

**Answer Mode:** This mode on the ATARI 830 Acoustic Modem indicates which terminal is receiving the communication call. In the answer mode you must manually answer the telephone and switch the ANS/OFF/ORIG control to ANS.

**COMPUSERVE INFORMATION SERVICE:** A personal computing service that provides computer programs, data bases, and other services to its customers.

**Direct Connect Modem:** The direct connect modem automatically dials a service from a telephone number stored in the TeleLink II cartridge memory, or entered from the keyboard.

**DOW JONES NEWS/RETRIEVAL Service:** Instantaneous access to the information resources of Dow Jones & Co., Inc. Business and financial news from *The Wall Street Journal, Barrons, Dow Jones News Wire,* and other associated data services.

**Keypress Echo Off:** Characters entered on the keyboard are sent directly to the service, not to the screen. When the service receives the characters, it "echoes" them back to the computer and the screen. TeleLink II normally operates in this mode.

**Keypress Echo On:** Characters entered on the computer are sent to the service *and* the screen.

**Memory Buffer:** The memory buffer is a section of the computer's memory reserved for storing incoming characters.

**Modem:** A modem is a device that lets your computer "talk" to another computer or service. Modems convert computer characters into signals that can be transmitted over standard telephone lines.

**Originate Mode:** This mode on the acoustic modem indicates which terminal is initiating the communications link.

**Parity:** A method of checking characters by a computer to verify accurate transmission.

**Sign-On Code:** A unique series of characters assigned to you by the service that allows you to connect to and use the service.

**Telenet:** A communications network providing local telephone access to hundreds of services.

**THE SOURCE:** A time-share computer service offering personal computing programs and data bases.

**Tymnet:** A communications network providing local telephone access to hundreds of services.

**XOFF:** Signals the distant computer to stop sending data. To send an XOFF signal, press the `CTRL` key and type **S**.

**XON:** Signals the distant computer to begin sending data. To send an XON signal, press the `CTRL` key and type **Q**.

# For Advanced Users

This section lists the character and ASCII codes used by TeleLink II to communicate with other computers and information services. These codes are for users who are knowledgeable in telecommunications, and need to know what is being sent on the communication line. Users connecting to only the COMPUSERVE, THE SOURCE, and DOW JONES services do not need to know these codes.

**Character Codes**

The TeleLink II program converts certain keys into ASCII characters for transmission. Other keys cannot be transmitted under TeleLink II, or are converted to "nothing." The following list defines the transmission of these speical key functions.

| Keyboard Character Typed | Sends ASCII | Means ASCII |
|---|---|---|
| TAB | Nothing | Nothing |
| RETURN | New line | Return (CR) and Linefeed (LF) |
| DELETE BACK S | Control H | Backspace |
| SHIFT DELETE BACK S | Nothing | Nothing |
| BREAK | Nothing | Nothing |
| SHIFT BREAK | | Transmits 1/2-second break |
| CAPS LOWR | Lowercase mode | |
| SHIFT CAPS LOWR | Uppercase mode | |

For the complete list of character codes, see the following ASCII Character Codes.

# ASCII Character Codes

The American National Standards Institute (ANSI) devised 128 character codes for worldwide communication between computers. This code is called ASCII, the American Standard Code for Information Interchange.

| Hexadecimal Code | Generated by Key Combination | ASCII Meaning | Character or Function Displayed |
|---|---|---|---|
| 00 | CTRL @ | NUL | |
| 01 | CTRL A | SOH | |
| 02 | CTRL B | STX | |
| 03 | CTRL C | ETX | |
| 04 | CTRL D | EOT | |
| 05 | CTRL E | ENQ | |
| 06 | CTRL F | ACK | |
| 07 | CTRL G | BEL | Sound BEL |
| 08 | CTRL H | BS | Destructive backspace |
| 09 | CTRL I | HT | Cursor 5 spaces right |
| 0A | CTRL J | LF(NL) | Cursor to start next line |
| 0B | CTRL K | VT | |
| 0C | CTRL L | FF | Clear screen |
| 0D | CTRL M | CR | Cursor to start current line |
| 0E | CTRL N | SO | |
| 0F | CTRL O | SI | |
| 10 | CTRL P | DLE | |
| 11 | CTRL Q | DC1 | Logically unlock keyboard |
| 12 | CTRL R | DC2 | |
| 13 | CTRL S | DC3 | Logically lock keyboard |
| 14 | CTRL T | DC4 | |
| 15 | CTRL U | NAK | |
| 16 | CTRL V | SYN | |
| 17 | CTRL W | ETB | |
| 18 | CTRL X | CAN | |
| 19 | CTRL Y | EM | |
| 1A | CTRL Z | SUB | |
| 1B | ESC CTRL , | ESC | |
| 1C | ESC CTRL + | FS | |
| 1D | ESC CTRL . | GS | |
| 1E | ESC CTRL = | RS | |
| 1F | ESC CTRL — | US | |
| 20 | Space | Space | Space |
| 21 | ! | ! | ! |
| 22 | " | " | " |
| 23 | # | # | # |
| 24 | $ | $ | $ |
| 25 | % | % | % |
| 26 | & | & | & |
| 27 | ' | apostrophe | ' |
| 28 | ( | ( | ( |
| 29 | ) | ) | ) |
| 2A | x | x | x |
| 2B | + | + | + |
| 2C | , | comma | , |
| 2D | - | dash | - |
| 2E | . | period | . |
| 2F | / | / | / |
| 30 | 0 | 0 | 0 |
| 31 | 1 | 1 | 1 |
| 32 | 2 | 2 | 2 |
| 33 | 3 | 3 | 3 |
| 34 | 4 | 4 | 4 |
| 35 | 5 | 5 | 5 |
| 36 | 6 | 6 | 6 |
| 37 | 7 | 7 | 7 |
| 38 | 8 | 8 | 8 |
| 39 | 9 | 9 | 9 |
| 3A | : | : | : |
| 3B | ; | ; | ; |
| 3C | < | < | < |

| Hexadecimal Code | Generated by Key Combination | ASCII Meaning | Character or Function Displayed |
|---|---|---|---|
| 3D | = | = | = |
| 3E | > | > | > |
| 3F | ? | ? | ? |
| 40 | @ | @ | @ |
| 41 | A | A | A |
| 42 | B | B | B |
| 43 | C | C | C |
| 44 | D | D | D |
| 45 | E | E | E |
| 46 | F | F | F |
| 47 | G | G | G |
| 48 | H | H | H |
| 49 | I | I | I |
| 4A | J | J | J |
| 4B | K | K | K |
| 4C | L | L | L |
| 4D | M | M | M |
| 4E | N | N | N |
| 4F | O | O | O |
| 50 | P | P | P |
| 51 | Q | Q | Q |
| 52 | R | R | R |
| 53 | S | S | S |
| 54 | T | T | T |
| 55 | U | U | U |
| 56 | V | V | V |
| 57 | W | W | W |
| 58 | X | X | X |
| 59 | Y | Y | Y |
| 5A | Z | Z | Z |
| 5B | [ | [ | [ |
| 5C | \ | \ | \ |
| 5D | ] | ] | ] |
| 5E | ^ | ^ | ^ |
| 5F | — | underscore | — |
| 60 | CTRL | grave accent | |
| 61 | a | a | a |
| 62 | b | b | b |
| 63 | c | c | c |
| 64 | d | d | d |
| 65 | e | e | e |
| 66 | f | f | f |
| 67 | g | g | g |
| 68 | h | h | h |
| 69 | i | i | i |
| 6A | j | j | j |
| 6B | k | k | k |
| 6C | l | l | l |
| 6D | m | m | m |
| 6E | n | n | n |
| 6F | o | o | o |
| 70 | p | p | p |
| 71 | q | q | q |
| 72 | r | r | r |
| 73 | s | s | s |
| 74 | t | t | t |
| 75 | u | u | u |
| 76 | v | v | v |
| 77 | w | w | w |
| 78 | x | x | x |
| 79 | y | y | y |
| 7A | z | z | z |
| 7B | CTRL < | open brace | { |
| 7C | | | | | | |
| 7D | CTRL > | close brace | } |
| 7E | CTRL / | tilde | |
| 7F | delete | DEL | Same as BS (08H) |

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