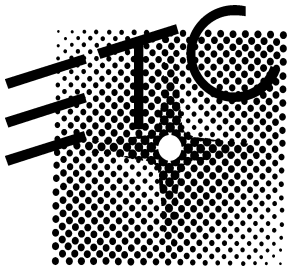
Expression

Expression Off-Line

QuickGuide

Version 3.03



Expression

Expression Off-Line QuickGuide

Version 3.03

Contents

Introduction 3
System requirements 3
Installing Expression Off-Line 4
- Deleting old Off-Line 4
- Installation procedure 5

Running Off-Line 5
- Starting the program 5
- Freezing windows 5
- Operating the program 5
- Changing console type 6
- Configuring Off-Line 6
- Loading a show 7
- Loading fixture personalities 8
- Saving a show 9

Labeling in Off-Line 10
Document files 10
Appendix A ~ Contents of version 3.03 showfile 11
- Show contents 11
- Configuration contents 12

Appendix B ~ Time and location 13
- United States cities 13
- Cities outside the United States 14

Appendix C ~ Expression Off-Line keyboard equivalents 15

Introduction

Expression Off-Line is a console emulating program that runs on an IBM PC or PC-compatible personal computer. It can create and edit shows for version 3.0 (or later) system software, which is available for all of the following consoles:

- Models 2 and 2x: Expression 2x, Insight 2 and 2x, Concept 2x and Impression 2
- Model 3: Expression 3 and Insight 3
- Express: Express 125, 250, 24/48, 48/96 and 72/144

The same show may not run the same way in each of these consoles because of console limitations, such as channel and dimmer counts. Off-Line, however, can be configured so that the show it produces is matched to the capabilities of the console in which the show will be run.

All Off-Line menus, operator prompts and help screens are identical to those of the console. Even the displays look like the real thing. Virtually nothing is different when you use Off-Line to patch, set channel attributes, record program elements such as cues and groups—in short, everything you might do in the console itself. You can even print lists from the show using your computer printer, thereby making it less important to attach a printer to your playback system.

When the show is ready to go, you simply transfer it to diskette using the convenient Off-Line export function and read it into the console. You can also maintain a showfile library on your computer's hard drive from which you can select shows to edit or transfer one to diskette when you're ready to use it. Use Off-Line to build a show from an old one that has most of what you want. If you have a show in USITT ASCII format, the Off-Line Convert function allows you to read it into Off-Line. When you're saving a show to diskette or to your hard drive, you can simultaneously convert it to USITT ASCII format if you wish.

Off-Line may be ordered in a kit or downloaded from ETC's website (www.etcconnect.com). When delivered in a kit, Off-Line is supplied with the following:

- Installation software, containing both the Expression Off-Line and Expression Personality Editor programs (they are operated independently).
- Computer-readable User Manuals written for Expression, Insight and Express consoles (Concept and Impression users should refer to Expression manual).
- User Manual Supplement for Express console programming (not needed for Expression, Insight, Concept or Impression models).

If you have problems installing or using Expression Off-Line, or need information about any other ETC product or service, please call your local dealer or call ETC at 800-688-4116. Information about ETC's products and services is also available at the ETC website at www.etcconnect.com.

System requirements

Following are the hardware and software requirements for Expression Off-Line:

- 386 processor (486 or higher recommended)
- DOS 5.0 or later
- Windows 95, Windows 98 or Windows NT
- 8 MB RAM (16 MB recommended)
- 10 MB available hard drive space
- Color monitor (1,024 x 768 x 256 or higher recommended)
- 3.5-inch floppy drive
- Mouse (or equivalent pointing device)

Installing Expression Off-Line

Off-Line, version 3.03, installs with Expression Personality Editor, a companion program for Expression family consoles. Once installed, these two programs are functionally independent, but they use some of the same directories in your computer. To learn more about the Expression Personality Editor and how to use it, see the *Expression Personality Editor QuickGuide*.

Expression Off-Line is intended to install at c:\etc\eol in your computer and store its icon in program folder ETC. Usually these defaults are the most practical ones to use, especially if you ever need to troubleshoot your use of the program with ETC, but you are free to make changes during the installation procedure if you wish. Unless you wish to make changes, simply press **Next** to accept each default when prompted.

IMPORTANT NOTE*: If you have an older version of Off-Line already installed in your computer (earlier than version 3.0), you have multiple Off-Line programs to cover all the console types that Off-Line emulates. Version 3.03 of Expression Off-Line emulates all the same consoles with just one program. When version 3.03 is installed, it overwrites one of those multiple programs. The others remain in memory and can still be operated. If you accidentally run an older version, you would not be able to produce a show with the newer 3.03 features. For this reason, we recommend that you delete all older Off-Line programs before performing this installation. A step-by-step deletion procedure is given under* ***Deleting old Off-Line*** *below. Skip this procedure if installing Off-Line for the first time or if installing over a post-3.0 version of Off-line.*

Deleting old Off-Line

This section is only for those who have pre-3.0 versions of Expression Off-Line already installed in the computer (see **IMPORTANT NOTE** above). If this does not apply, skip to **Installing Off-Line** on the next page.

1. Click **Start**.
2. Slide the cursor to **Settings** and click **Taskbar**.
3. Click the **Start Menu Programs** tab.
4. Click **Remove**.
5. Click the ⊞ expansion box for the ETC folder (or where your Expression Off-Line programs are kept).
6. Click one of the Expression Off-Line programs (Expression, Express or Insight).
7. Click **Remove**.
8. Repeat steps 6-7 for all other Expression Off-Line programs.
9. Repeat 6-7 and select PersEdit 1.0 to remove an older version of the Personality Editor program, if present.
10. Click to **Close/Cancel** all **Start** menu windows.
11. If there is an Expression Off-Line icon on the Windows desktop, right-click it.
12. Click **Delete** to remove the icon.
13. Repeat steps 11-12 for any other Expression Off-Line icons on the desktop (Expression, Express or Insight).
14. Click **Start**.
15. Slide the cursor to **Programs** and click **Windows Explorer**.
16. Navigate to c:\etc\eol (or where your Expression Off-Line programs are kept).
17. Delete application files with the following names: winins.exe, winx2.exe, winexpr.exe.

Installation procedure

If you have the Off-Line / Personality Editor installation file, **setupeol.exe**, on your hard drive (maybe you downloaded it from the ETC website), simply double click on it and proceed as explained in steps 7 and 8 below. If you have it on diskette, follow steps 1-8 below.

1. Close all Windows programs.
2. Insert the *Expression Off-Line / Personality Editor* diskette.
3. Click **Start**.
4. Click **Run**.
5. Type **a:\setupeol** on the **Open** line.
6. Click **OK** or press [Enter].
7. Follow the on-screen prompts, pressing **Next** or **Finish** as appropriate. The installation process is automatic, except you will be prompted to use c:\etc\eol as the destination and ETC as the folder for icons. ETC recommends you accept these storage locations.
8. Close the ETC folder.

Running Off-Line

Starting the program

When Expression Off-Line installs, it places an icon in the ETC program folder. You can run the program from that icon, which is available from the Start menu, or you can create a desktop icon for additional convenience. If you have any questions about running a program from the Start menu or about creating desktop icons, see your Windows User Manual.

Off-Line always starts in the Stage display without a show loaded. The first time you run Off-Line it runs in an Expression 3/1200 console emulation. If you want Off-Line to emulate a different console, follow the procedure under the following section, **Changing console type**. Once you change the console type, Off-Line always emulates the selected console unless you make a different choice. **NOTE**: When you change console type, you must exit Off-Line from the File menu and then restart it for your choice to become effective.

Freezing windows

Off-Line operates with a number of floating windows in your computer display. Two of these windows (only one for Express) reproduce the displays ordinarily seen on the Command and Playback console monitors. There are four additional Off-Line windows, showing the console keypad, faders, submasters and wheels, respectively. You can turn any window on or off from the drop-down Window menu in the Expression Off-Line master window. Also, you can choose from among three window sizes by single-clicking the Windows logo in each individual window. Once you make your sizing and placement selections, you can save the arrangement by selecting **Save Window Position** from the Window menu.

Operating the program

Operate Off-Line by clicking buttons and operating controls in any of the Off-Line windows. You can also operate the controls with your mouse or other pointing device attached to your computer. Online information about Off-Line's windows, menus, controls and shortcuts is available by clicking **Help** in Off-Line's master window.

Changing console type

1. From the **Options** menu, select **Console Type**.
2. Click next to the console type of your choice. If you are uncertain which to select, see the Off-Line Type column in the Resource Table below.
3. Click **OK** or press [Enter] on your keyboard.
4. From the **File** menu, click **Exit**.
5. Restart Off-Line. It will run in an emulation of the console type you selected.
6. Press [Setup] to verify your console selection. The console type is named in the lower right corner of the Setup display.

Configuring Off-Line

Before you create or modify shows with Expression Off-Line, you should verify that Off-Line has the correct channel and dimmer settings. If these are not set correctly, you could address channels or dimmers that don't exist in your console. Consult the Resource Table below for the proper channel and dimmer settings for your console type.

Change the channel and dimmer settings in Expression Off-Line just as you would in the console. When supplying data to Off-Line, either enter in the number on the Off-Line keypad or on the computer keyboard. The following procedure assumes you use the Off-Line keypad for all entries.

1. Click [Setup] [1] [Enter] to bring up the System Settings menu.
2. Click [1], **Number of Dimmers**, [Enter]. Enter the number of dimmers and then click [Enter].
3. Click [2], **Number of Channels**, [Enter]. Enter the number of channels and then click [Enter].

***NOTE**: The channel and dimmer settings are stored with the show, not with Off-Line. You must make the same changes in channel and dimmer settings for each show.*

Console Type	Channels	Dimmers	Off-Line Type	Manual Filename
Concept 2x	1200	1536	Expression 3 / 1200	Expn303.pdf
Express 125	125	1024	Express 125	Exps250.pdf
Express 250	250	1024	Express 250	Exps250.pdf
Express 24/48	96	1024	Express 24/48	Exps2SP.pdf
Express 48/96	192	1024	Express 48/96	Exps2SP.pdf
Express 72/144	240	1024	Express 72/144	Exps2SP.pdf
Expression 2x	800	1536	Expression 3 / 800	Expn303.pdf
Expression 3 / 400	400	1536	Expression 3 / 400	Expn303.pdf
Expression 3 / 800	800	1536	Expression 3 / 800	Expn303.pdf
Expression 3 / 1200	1200	1536	Expression 3 / 1200	Expn303.pdf
Impression 2	300	1024	Impression 2	Expn303.pdf
Insight 2	108	1024	Insight 2	Inst303.pdf
Insight 2x	512	1536	Insight 3	Inst303.pdf
Insight 3	512	1536	Insight 3	Inst303.pdf

Resource table for Expression Off-Line

Loading a show

There are four ways to load a show into Expression Off-Line. Each procedure loads only the show contents of the showfile. To load the configuration contents of the showfile, use the additional procedure in this section, *Reading the showfile system configuration*. **NOTE**: The system configuration information is available only for showfiles saved with version 3.03 (or later) software. See *Appendix A ~ Contents of version 3.03 showfile* in this QuickGuide for listings of the show and configuration elements that are saved in the showfile.

Using console diskette functions

This option works the same as the read options among the console diskette functions with one important difference: it can also read files from the hard drive. The first time you do a read or write operation, a file dialog window pops up that allows you to specify the filename and file location. Once you make that selection, every other read or write using the diskette functions goes to the same place and uses the same filename. You can quit Off-Line and reenter it to bring up the file dialog window again, or you can use the file handling menu of Off-Line itself to change file selections. See the chapter of your User Manual entitled *Diskette Functions* for further information about those functions.

Reading a file in ASCII format

This option is for shows recorded in USITT ASCII format. The ASCII-formatted show is converted to native Expression family format during the load. Shows may be read from hard drive or diskette. Only show components are read from the showfile, not configuration components.

1. Click **Convert** on the Expression Off-Line taskbar.
2. Click **Read ASCII**.
3. Navigate to the file you want to read and highlight it.
4. Click **Open**.

Opening a file

Use this option to read a show file from hard drive or diskette. You will always be asked to specify the filename and location in a file dialog window. Only the show components of a showfile will be read, omitting the configuration components.

1. Click **File** on the Expression Off-Line taskbar.
2. Click **Open** in the File menu and navigate to the showfile location.
3. Click **OK** when you have the filename and path specified.

Importing a show

The import function reads showfiles that are named exp2.shw and are located on a diskette. You will be prompted to identify the proper disk drive. Only the show components of a showfile will be read, omitting the configuration components.

1. Insert the showfile diskette into your computer's disk drive.
2. Click **File** on the Expression Off-Line taskbar.
3. Click **Import Show** in the File menu.
4. Click to select the drive that holds the diskette.

Reading the showfile system configuration

The **Read System Configuration** function reads only the configuration components of showfiles. The showfile may be either on your hard drive or on a diskette.

1. Click **File** on the Expression Off-Line pull-down menu.
2. Click **Read System Configuration** in the File menu.
3. Navigate to the file you want to read and highlight it.
4. Click **Open**.

Loading fixture personalities

Fixtures are patched in ETC consoles by means of personalities, which are each unique to a fixture type. Personalities for many common fixtures on the market are contained as defaults in the Off-Line software. You may find, however, that none of Off-Line's default personalities match the fixture(s) you are using and that you need to load one or more additional personalities into the show.

There are two ways to load additional personalities. Many additional personalities are loaded into your computer when Off-line is installed, but you need to do two things to use them: move them to the Shows folder and load them into Off-Line. Also, you can create a personality with the Expression Personality Editor. If you have a personality that was created with the Personality Editor and it is stored in the Show directory as recommended, all you need to do is load it into the show. See the *Expression Personality Editor QuickGuide*, version 1.1, for information about creating and storing personalities.

Additional personalities supplied with Expression Off-Line are contained in two folders named Verified and Unverified according to whether ETC determined by testing that the personality works as intended. Unverified personalities are not necessarily defective, just less well tested. The personality files are named for the fixtures for which th e personalities were designed.

Copy personality files to the Shows folder using the tools provided in your Windows operating system. If you have any questions about copying files in Windows, see your Windows User Manual. You can speed the loading process and avoid conflicts between a loading personality and one already loaded if you first delete unneeded personality files from the Shows folder (personality files have a prs extension). The software will attempt to load all personalities in the Shows folder.

Once you have the personality files you need in the Shows folder, load them into Expression Off-Line with the following procedure:

1. Start Off-Line.
2. In Off-Line, press [Setup] to go to the setup menu.
3. In the setup menu, select option 15 - **Moving Light Functions**.
4. In the **Moving Light Functions** menu, select 1 - **Personality Setup**.
5. In the **Personality Setup** menu, press softkey [S1], **From Disk**.
6. Press [Enter] to load all personalities in the Shows folder.

If any of the personalities you are loading has the same name as one of the personalities already in the show, a **WARNING** window will appear. Follow the instructions in the **WARNING** window to continue. If possible, always load personalities before patching. If you are replacing a personality with one that assigns more channels, the automatic repatching will cause erroneous overlapping. Such overlapping can cause unexpected or inconsistent behavior from recorded elements such as groups and cues used in the show. You may need to repatch fixtures.

Saving a show

There are four ways to save a show with Expression Off-Line. All but the ASCII procedure copies both the system configuration components and the show components to the showfile. See *Appendix A ~ Contents of version 3.03 showfile* in this QuickGuide for listings of the show and configuration elements that are saved in the showfile.

Writing as a console diskette function

This option works the same as the write option provided among the console diskette functions, with one important difference: it can also write files to the hard drive. See **Using console diskette functions** under **Loading a show**, previous page, for additional information. Note that showfiles destined for the console must be named exp2.shw on the diskette.

Writing to ASCII format

The show is converted to USITT ASCII format prior to the save. As for the read ASCII, you are prompted to specify a name for the showfile and the location where you want to store it. Configuration components are not saved in the ASCII showfile.

1. Click **Convert** on the Expression Off-Line taskbar.
2. Click **Write ASCII**.
3. Specify a filename and location for the save.
4. Click **Save**.

Exporting a show

A show saved with the export function is automatically stored on a diskette and given the filename exp2.shw. That filename is required of a file that will be read into a console. If a file with that filename already exists on the diskette, it will be overwritten.

1. Insert a diskette into your computer's disk drive.
2. Click **File** on the Expression Off-Line taskbar.
3. Click **Export Show** in the File menu.
4. Click to select the drive that holds the diskette.

Saving a file

Use this option to write a showfile either to your hard drive or to diskette. The storage location defaults to the Shows folder on your c-drive, which is intended as a convenient place to store many showfiles together. You may select any name you wish for the showfile, but if you intend to load it into a console, the file must be named exp2.shw and it must be stored on diskette. See Exporting a show, above, for a more convenient procedure to use when creating a console-ready file.

1. Click **File** on the Expression Off-Line taskbar.
2. Click **Save As** in the File menu.
3. In the file dialog window, specify the filename and location where you want the file stored.
4. Click **Save**.

Labeling in Off-Line

Most consoles that Off-Line can emulate have a Label key. When programming on the console, you may use this key in conjunction with an optional alphanumeric keyboard to assign labels to channels and fixtures and to programming elements, such as cues, groups and time code events.

In Off-Line, a keyboard equivalent is available as an alternative to the Label key so that labels can be assigned with equal ease for all consoles. When programming allows you to assign a label, simply type **B** on the computer keyboard. You must be in a display that allows label assignment and have already selected the item to which you want to assign a label. For example, label a channel by going to the Channel Attribute display, select the channel(s) you want to label and type **B**. Or, assign a show name by going to the Setup display and type **B**. After typing **B** under circumstances where you are allowed to assign a label, you will see a blue band appear in the upper right corner, prefaced by a **Label** or **Show** prompt and containing a blinking cursor. As you type, the label text appears at the cursor. Press [Enter] to terminate label text entry.

This keyboard equivalent is especially valuable when producing a showfile for an Express console. You cannot label with an Express console because it lacks the Label key and does not allow an alphanumeric keyboard attachment. Labeling in Off-Line is also useful with other consoles when you find yourself producing a show without an available alphanumeric keyboard.

Document files

When you obtain Expression Off-Line in a kit, you also receive additional diskettes containing document files. These files are in pdf format rather than the original format in which they were created, and all you need to read and print them is Adobe Acrobat Reader. This popular program is commonly installed on new computers, bundled on CD-ROMs with commercial software programs and widely available on the internet. If you don't already have a copy on your computer, you can download it by connecting to the ETC website at www.etcconnect.com, where a convenient link to the Adobe website is provided. Install and operate Acrobat Reader according to instructions provided by Adobe.

The pdf files enclosed with Off-Line are in a compressed, self-extracting format. See the last column of the Resource Table on Page 8 to identify the User Manual that best meets your needs, and extract it as follows:

1. Examine from the labels on the document diskettes which User Manual(s) are of interest to you.
2. Insert a document diskette into your computer disk drive.
3. Start Windows Explorer.
4. Copy the file(s) you want from diskette to a suitable folder on your hard drive. For example, you might want to store User Manuals in the same folder as the Off-Line program (c:\etc\eol) or create a new directory there just for User Manual files.
5. After copying to the hard drive, double-click on the User Manual file. A new file with the same name but with a pdf extension will be created in the same folder.
6. Start Acrobat Reader and point the reader to the location where you stored the User Manual(s) to open a document file.

Appendix A ~ Contents of version 3.03 showfile

Each showfile saved with version 3.03 (or later) system software contains two kinds of programmed settings. Some settings pertain to the particular show, and other settings pertain to the system configuration that controls the programming and playback environment.

Generally, only the settings pertaining to the particular show are retrieved by a diskette read operation. After a show is read from diskette, therefore, the system configuration is the same even though the show in memory changes. If you wish, however, you can select different read operations to retrieve the system configuration separately or retrieve the show and system configuration settings at once.

Following are two separate lists of the contents of one showfile, showing a breakdown into the show contents and the configuration contents. The configuration contents are further broken down into two columns according to whether the settings pertain to a particular show or to the general system environment. Configuration settings are also identified according to the console display in which the settings are made.

When you read only the show from the showfile, you get everything listed below under **Show contents**, plus everything listed in the *Show* column under **Configuration contents**. When you read only the system configuration from a showfile, you get only the settings shown in the *System* column under **Configuration contents**.

NOTE: Items are saved in a showfile only if they could be programmed by or for a particular console. For example, you won't find Scene Mode if the showfile was saved in Off-Line for an Expression console because Expression does not recognize that feature. Similarly, you won't find Solo Bump, which is an Insight feature, in a showfile saved by an Express console.

Show contents

- Bump button status
- Channel attribute settings
- Cues and their settings
- Designer's Worksheet regions
- Dimmer profile and proportional settings
- Dimmer profile revisions
- Doubled dimmers
- Encoder setup
- Fixture attribute setup
- Focus points
- Groups
- Link lists
- Macros
- Parked channels and dimmers
- Patching for conventional lights
- Patching for ML fixtures
- Show name
- Solo bump (Insight)
- Personalities loaded
- Sub mode (Insight)
- Submasters and their settings
- Time code events

Configuration contents

Display	*Setting*	*Show*	*System*
Setup			
	Show name	X	
System Settings			
	Number of channels	X	
	Number of dimmers	X	
	Default fade time	X	
	Default level	X	
	Default fader clear time	X	
	Default sneak time	X	
	Designer's Worksheet setup	X	
	Blackout key		X
	Flexichannel		X
	Master type		X
	Record lockout		X
	Bump keys		X
	Scene mode (Express two-scene preset)	X	
Output Configuration			
	DMX512 mode	X	
	DMX512 start	X	
	DMX512 speed	X	
Options Settings			
	ETC MIDI channel		X
	ETC MIDI show control device IDs		X
	DMX In starting channel		X
	Infrared remote		X
	Time code input	X	
	Time code frames per second	X	
	Display Cue / Time Code list	X	
	ETCLink (enable)		X
	ETCLink address		X
	Powerup macro	X	
	Real Time Programs (enable)		X
	External port		X
	Twisted pair polarity		X
	Baud rate		X
ETCLink Functions			
	Display advisories		X
Time Code Events			
	Clock enable / disable	X	
Clock Functions			
	12 / 24 hour clock		X
	Latitude		X
	Longitude		X
	Time zone		X

Appendix B ~ Time and location

Use the data below for the latitude, longitude and time zone information required by the astronomical clock. These settings are included with the system configuration in the showfile.

United States cities

City, State	Time Zone	Latitude	Longitude
Albuquerque, NM	+ 7 West	35° 03´ N	106° 37´ W
Anchorage, AK	+ 10 West	61° 10´ N	149° 11´ W
Atlanta, GA	+ 5 West	33° 39´ N	84° 26´ W
Baltimore, MD	+ 5 West	39° 11´ N	76° 40´ W
Bangor, ME	+ 5 West	44° 48´ N	68° 50´ W
Billings, MT	+ 7 West	45° 47´ N	108° 32´ W
Boise, ID	+ 7 West	43° 36´ N	116° 13´ W
Boston, MA	+ 5 West	42° 20´ N	71° 01´ W
Buffalo, NY	+ 5 West	42° 53´ N	78° 51´ W
Burlington, VT	+ 5 West	44° 29´ N	73° 13´ W
Charleston, SC	+ 5 West	32° 47´ N	79° 59´ W
Charlotte, NC	+ 5 West	35° 11´ N	80° 50´ W
Cheyenne WY	+ 6 West	41° 08´ N	104° 47´ W
Chicago, IL	+ 6 West	41° 50´ N	87° 41´ W
Cincinnati, OH	+ 5 West	39° 08´ N	84° 31´ W
Cleveland, OH	+ 5 West	41° 28´ N	81° 40´ W
Dallas, TX	+ 6 West	32° 47´ N	96° 45´ W
Denver, CO	+ 7 West	39° 46´ N	104° 52´ W
Des Moines, IA	+ 6 West	41° 34´ N	93° 37´ W
Detroit, MI	+ 5 West	42° 22´ N	83° 06´ W
Fargo, ND	+ 6 West	46° 52´ N	96° 49´ W
Fort Worth, TX	+ 6 West	29° 46´ N	95° 23´ W
Hartford, CT	+ 5 West	41° 45´ N	72° 41´ W
Honolulu, HI	+ 10 West	21° 79´ N	157° 48´ W
Kansas City, MO	+ 6 West	39° 07´ N	94° 33´ W
Las Vegas, NV	+ 7 West	36° 12´ N	115° 13´ W
Lincoln, NB	+ 6 West	40° 48´ N	96° 41´ W
Little Rock, AR	+ 6 West	34° 43´ N	92° 21´ W
Los Angeles, CA	+ 8 West	34° 05´ N	118° 24´ W
Madison, WI	+ 6 West	43° 04´ N	89° 23´ W
Memphis, TN	+ 6 West	35° 06´ N	90° 00´ W
Miami, FL	+ 5 West	25° 49´ N	80° 13´ W
Milwaukee, WI	+ 6 West	43° 03´ N	87° 58´ W
Minneapolis, MN	+ 6 West	44° 57´ N	93° 16´ W
Montgomery, AL	+ 6 West	32° 21´ N	86° 17´ W
New Orleans, LA	+ 6 West	30° 03´ N	89° 55´ W
New York, NY	+ 5 West	40° 46´ N	73° 58´ W
Oklahoma City, OK	+ 6 West	35° 28´ N	97° 30´ W
Philadelphia, PA	+ 5 West	40° 00´ N	75° 08´ W
Phoenix, AZ	+ 7 West	33° 32´ N	112° 04´ W
Pittsburg, PA	+ 5 West	40° 26´ N	79° 58´ W
Portland, OR	+ 8 West	45° 32´ N	122° 39´ W
Providence, RI	+ 5 West	41° 49´ N	71° 25´ W
Richmond, VA	+ 5 West	37° 31´ N	77° 28´ W
Salt Lake City, UT	+ 7 West	40° 46´ N	111° 55´ W
San Antonio, TX	+ 6 West	29° 27´ N	98° 30´ W
San Diego, CA	+ 8 West	32° 48´ N	117° 08´ W
San Francisco, CA	+ 8 West	37° 47´ N	122° 33´ W

City, State	Time Zone	Latitude	Longitude
Savannah, GA	+ 5 West	32° 01´ N	81° 07´ W
Seattle, WA	+ 8 West	47° 37´ N	122° 21´ W
Sioux Falls, SD	+ 6 West	43° 32´ N	96° 43´ W
Syracuse, NY	+ 5 West	43° 02´ N	76° 08´ W
Tampa, FL	+ 5 West	27° 57´ N	82° 28´ W
Tucson, AZ	+ 7 West	32° 11´ N	110° 53´ W
Washington D.C.	+ 5 West	38° 54´ N	77° 00´ W

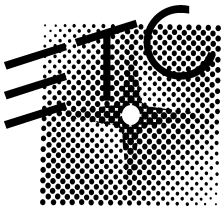
Cities outside the United States

Algiers, Algeria	- 1 East	36° 46´ N	30° 30´ E
Amsterdam, Netherlands	- 1 East	52° 23´ N	4° 55´ E
Ankara, Turkey	- 2 East	39° 57´ N	32° 53´ E
Athens, Greece	- 2 East	37° 58´ N	23° 43´ W
Barcelona, Spain	- 1 East	41° 24´ N	2° 09´ W
Bergen, Norway	- 1 East	60° 24´ N	5° 19´ E
Berlin, Germany	- 1 East	52° 27´ N	13° 18´ E
Bordeaux, France	- 1 East	44° 50´ N	0° 34´ W
Bristol, England	0	51° 30´ N	3° 30´ W
Brussels, Belgium	- 1 East	50° 48´ N	4° 21´ E
Cairo, Egypt	- 2 East	29° 52´ N	31° 20´ E
Casablanca	0	33° 35´ N	7° 39´ W
Copenhagen, Denmark	- 1 East	55° 41´ N	12° 33´ E
Dublin, Ireland	0	53° 22´ N	6° 21´ W
Edinburgh, Scotland	0	55° 55´ N	3° 11´ W
Fukuoka, Japan	- 9 East	33° 35´ N	130° 27´ E
Glasgow, Scotland	0	55° 52´ N	4° 17´ W
Hamburg, Germany	- 1 East	53° 33´ N	9° 58´ E
Helsinki, Finland	- 2 East	60° 10´ N	24° 57´ E
Hong Kong	- 8 East	22° 18´ N	114° 10´ E
Lisbon, Portugal	0	38° 43´ N	9° 8´ W
London, England	0	51° 29´ N	0° 0´ W
Lyon, France	- 1 East	45° 42´ N	4° 47´ E
Madrid, Spain	- 1 East	40° 25´ N	3° 41´ W
Marseilles, France	- 1 East	43° 18´ N	5° 23´ E
Milan, Italy	- 1 East	45° 27´ N	9° 17´ E
Montreal, Quebec, Canada	+ 5 West	45° 30´ N	73° 36´ W
Moscow, Russia	- 3 East	55° 46´ N	37° 20´ E
Munich, Germany	- 1 East	48° 09´ N	11° 34´ E
Naples, Italy	- 1 East	40° 53´ N	14° 18´ E
Oslo, Norway	- 1 East	59° 56´ N	10° 44´ E
Paris, France	- 1 East	48° 49´ N	2° 29´ E
Prague, Czechoslovakia	- 1 East	50° 05´ N	14° 25´ E
Reykjavik, Iceland	0	64° 08´ N	21° 56´ E
Riga, Latvia	- 3 East	56° 40´ N	106° 10´ E
Rome, Italy	- 1 East	41° 48´ N	12° 36´ E
Sapporo, Japan	- 9 East	43° 04´ N	141° 21´ E
Seoul, Korea	- 9 East	37° 34´ N	126° 58´ E
Stockholm, Sweden	- 1 East	59° 21´ N	18° 04´ E
Strasbourg, France	- 1 East	48° 35´ N	7° 46´ E
Tokyo, Japan	- 9 East	35° 41´ N	139° 46´ E
Toronto, Ontario, Canada	+ 5 West	43° 39´ N	79° 23´ W
Vancouver, B.C., Canada	+ 8 West	49° 15´ N	123° 07´ W
Vienna, Austria	- 1 East	48° 15´ N	16° 22´ E
Warsaw, Poland	- 1 East	52° 13´ N	21° 02´ E

Appendix C ~ Expression Off-Line keyboard equivalents

Following are the keys you would type in Off-Line to simulate console commands. To display these keyboard equivalents, select *Keyboard Shortcuts* from the Overview screen of Help.

+ ..... +
– ..... –
. ...
0-9 0-9
AB Back ..... Ctrl-D
AB Clear ..... Ctrl-A
AB fader slider down ..... {
AB fader slider up ..... [
AB Go ..... Ctrl-G
AB Hold ..... Ctrl-F
AB Rate ..... Ctrl-S
About F3
And ..... N
At ..... A
Blackout ..... Ctrl-K
Blind Shift-F2
CD Back ..... Ctrl-C
CD Clear ..... Ctrl-Z
CD fader slider down ..... }
CD fader slider up .....]
CD Go ..... Ctrl-B
CD Hold ..... Ctrl-V
CD Rate ..... Ctrl-X
Channel C
Clear ..... Backspace
Clear ..... Delete
Cue ..... Q
Dimmer ..... D
Down arrow ..... ↓
Enter ..... Enter
Except X
Expand Shift-F8
Fader Shift-F3
Focus point ..... !
Follow ..... Y
Full ..... F
Group ..... G
Help ..... ?
Help ..... H
Label ..... B
Learn F4
Left arrow ..... ←
Level V
Level wheel down ..... Page Down
Level wheel up ..... Page Up
Link ..... K
Load Sub ..... #
Macro * ..... M
Macro Enter ..... Ctrl-E
Macro Wait ..... Ctrl-W
Master down ..... |
Master up ..... \
Only ..... O
Page ..... J
Park Shift-F6
Part ..... P
Patch Shift-F5
Rate wheel down ..... End
Rate wheel up ..... Home
Record ..... R
Release L
Right arrow ..... →
Setup Shift-F7
Softkey 1-8 ..... Ctrl- F1-F8
Solo Bump (Insight only) ..... U
Stage Shift-F1
Sub Mode (Insight only) ..... E
Submaster ..... S
Swap F2
Thru ..... T
Time I
Track ..... ^
Tracksheet Shift-F4
Type ..... *
Up arrow ..... ↑
Wait ..... W



Electronic Theatre Controls

North America 3030 Laura Lane • Middleton, Wisconsin 53562 • USA • Tel: (+1) 608 831 4116 • Fax: (+1) 608 836 1736
Europe 5 Victoria Industrial Estate • Victoria Road • London W3 6UU • England • Tel: (+44) 181 896 1000 • Fax: (+44) 181 896 2000
Asia Room 605-606 • Tower III, Enterprise Square • 9 Sheung Yuet Road • Kowloon Bay • Hong Kong • Tel: (+852) 2799 1220 • Fax: (+852) 2799 9325
Web www.etcconnect.com • **Email** mail@etcconnect.com

Copyright 1999 • Specifications subject to change • **4131M1005** • Released 3/99