Panasonic

Users' Guide

Upgrade Utility
for Audio Mixer
WR-DA7
Version 2.01

RAMSA

The meter bridge shown in photo is one of the optional accessories.

Before attempting to connect or operate this product, please read these instructions completely.

TRADEMARKS

All trademarks are the property of their respective copyright holder for use in this document, including but not limited to;

> ProTools is a registered trademark of DigiDesign
>
> ADAT is a registered trademark of ALESIS Corp.
>
> HUI is a registered trade mark of Mackie Design Inc.
>
> Macintosh is a registered trademark of Apple Computer, Inc.
>
> Windows is either a trademark or a registered trademark of Microsoft Corporation

----

Panasonic DA7 Upgrade Utility License Agreement

Matsushita Communication Industrial Co., Ltd. ("MCI") permits you to use the Panasonic DA7 Upgrade Utility software ("Software") on condition of your acceptance of the following terms. As use of the Software shall be deemed that you have accepted the following terms, please read the following terms carefully before you use the Software.

1. Copyright and License for use

MCI grants you an individual and a non-exclusive right to use the Software on only single computer. You own the magnetic media on which the Software is originally or subsequently recorded or fixed, but MCI retains title to and ownership in the Software. The Software and the accompanying documentation are copyrighted by MCI.

2. Prohibition and Restrictions

You may not modify, adapt, translate, decompile, disassemble, reverse-engineer, or create derivative works based on the Software, nor may you allow another person to do so. The Software may not be duplicated, corrected, modified, lent, leased, sold, distributed, licensed or disposed of in any other way in part or in whole. The Software may not be transmitted over a network to another computer without written authorization from MCI. You may transfer the Software and accompanying documentation on a permanent basis to transferee provided it is for non-commercial purposes and you retain no copies and recipient agrees to the terms of this Agreement.

3. Limited Responsibility

MCI shall not be liable for any direct, indirect, consequential, or incidental damages (including damages from but not limited to data loss, loss of business profit, business interruption, or loss of business information) arising out of the use of or inability to use the Software even, if MCI has been advised of the possibility of such damages.

(This page left blank intentionally.)

The DA7 Upgrade Utility Users' Guide

Introduction

Welcome to New Version 2.0 Operating System for the DA7.

We hope you are enjoying your DA7, and that you will find that the 64 enhancements
we have included in the Version 2.0 operating system will increase your enjoyment of
our product. Please note that there are changes in the default settings of the DA7,
some of which will affect how you operate your mixer. Please take a few moments
to review the changes.

This document covers ALL upgraded features to the original DA7 Operating System
(Version 1.01/1.02). Therefore, we strongly recommend that you review this
document before you upgrade your console so that you are familiar with all the new
features.

We also recommend that you print and keep this document as a supplement to the
DA7 operation manual that came with your DA7. If you would like to have an
electronic copy of the DA7 user guide, it can be downloaded from
http://www.panasonic.com/proaudio. Once you have entered this site, go to the
download section and select DA7 User Guide.

Important Notes:

Due to the fact that there are many new default settings in the Version 2.0 upgrade, we are recommending that you do a Master Reset of the console after the upgrade. Therefore you should backup any settings in the Libraries, Scene Memories, Mixes, etc. BEFORE you begin the upgrade process. Instruction for this process can be found in Section 1. After the upgrade, make certain that you look at the MIDI REMOTE and INPUT MTX windows on the LCD to see if they are properly assigned. If they are not, please reset them to your desired settings or, do a master reset to the console to return the DA7 to the new factory default settings.

There are several updates to the default settings that may have an affect on the settings in your console. This will protect you from accidental erasure of any of your presets. After the upgrade, simply restore the data you have saved following the instructions in Section 1.

If you are planning to use our optional automation software package (MAX), please be aware that you must be running at least O.S. Version 1.10 for it to operate properly, and we recommend that you upgrade your DA7 to Version 2.0 for optimum performance.

Some of the features documented here are from intermediate upgrade versions. If you are upgrading your console from Version 1.01 or 1.02, all of the features in this document will apply to you. If you have previously upgraded your console to Version 1.10-1.20-1.21 or higher, you have already been using some of the features documented here in Section 2.

If you are upgrading from version 1.21 or higher, you should follow all the instructions in Section 1, and then you may proceed directly to Section 3.

Contents:

Section 1 - Upgrade Utility instructions

Section 2 - Upgrade from Version 1.01/1.02/1.10/1.20

Section 3 - Upgrade from Version 1.21 or higher

Section 4 - APPENDIX - New Default Settings

Section 1
Upgrade Utility Instructions

Contents

Preface

The DA7 Upgrade Utility is a multifunction software manager program specifically designed to allow you to perform operating system upgrades, as well as backup and restore functions for the library, scene memory, automation data, as well as setup data for the DA7.

Using the serial ports on the DA7 and your computer, data can be sent to or from a DA7 and then saved to your computer hard disk for backup and retrieval. The memories and programs can be retrieved individually, or in groups. The retrieved memory and program titles can be edited using the computer's keyboard. The data, including edited titles, can be transmitted between the computer and the DA7.

Installation

It is recommended that you perform a backup of your current data BEFORE you perform an upgrade to your DA7's operating system.

Macintosh Version

1. Copy the files for installation file (DA7UPINS) to a folder on to your hard drive.

2. Once you have loaded the file, you need to open the folder to gain access to the following files:

> **DA7UPG - Executable file of the Upgrade Utility**

> **V201R05.mot - Upgrade file for the DA7**

> **CNV - Data Conversion folder for old backup versions**

> **BKUP - Backup Data folder**

3. Open the file "DA7UPG".

4. Test the communication path between the computer and your DA7 by clicking on the "VERSION" button on your computer in the open window. If it is properly connected, you will see the version of software that is currently in your DA7 displayed, and the"BACKUP" and "RESTORE" buttons will become active. (You need to set up DA7 and Upgrade Utility Configuration before testing. To set up Configuration of the DA7 and the upgrade utility, read the following chapters - "Cables and Connections", "Setting up the DA7", and "[Setup]" in "Operating the DA7 Upgrade Utility".)

Windows Version

1. Copy the files for installation file (DA7UPINS.EXE) to folder on to your hard drive.

2. Double–click on "DA7IPINS.exe", If you are "unzipping" the file, you can unzip it. The installation file installs the upgrade utility in "C:\UpgradeDA7".

3. Once you have loaded the file, you need to open the folder to gain access to the following files:

> **DA7UPG.exe - Executable file of the Upgrade Utility**

> **V201R05.mot - Upgrade file for the DA7**

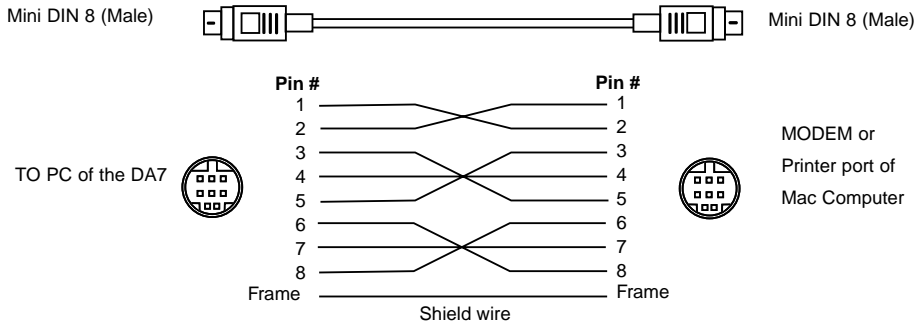> **CNV - Data Conversion folder for old backup versions**

> **BKUP - Backup Data folder**

4. Click on "DA7UPG.exe" to open the utility.

5. Test the communication path between the computer and your DA7 by clicking on the "VERSION" button on your computer in the open window. If it is properly connected, you will see the version of software that is currently in your DA7 displayed, and the BACKUP and RESTORE buttons will become active. (You need to set up DA7 and Upgrade Utility Configuration before testing. To set up Configuration of the DA7 and the Upgrade Utility, read the following chapters - "Cables and Connections", "Setting up the DA7", and "[Setup]" in "Operating the DA7 Upgrade Utility".)

Cables and Connections

For Macintosh Computer

Use ONLY the recommended serial cable (cross cable) with a wiring pattern as described below. This cable is the same cable used for the ImageWriter II printer. Do NOT use a standard Macintosh Serial cable.

Mini DIN 8 (Male) ───────────────── Mini DIN 8 (Male)

Pin #		**Pin #**
1	╳	1
2		2
3		3
4	╳	4
5		5
6		6
7	╳	7
8		8
Frame	Shield wire	Frame

TO PC of the DA7

MODEM or
Printer port of
Mac Computer

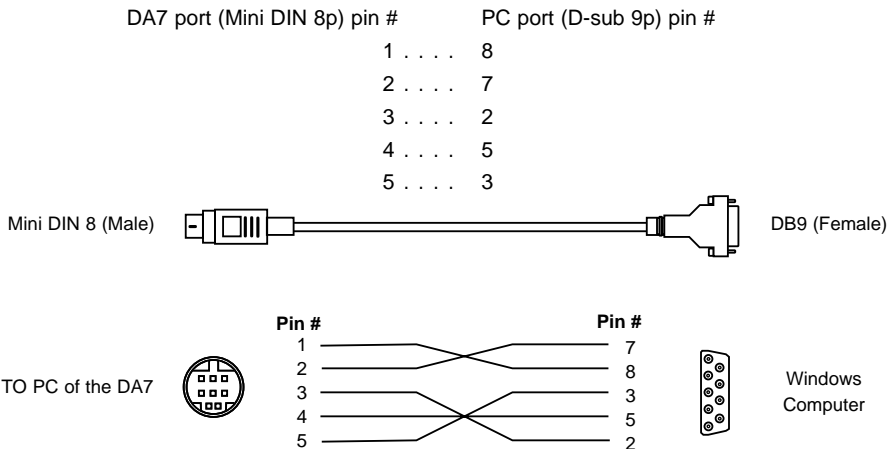Use this to connect between the modem port or printer port of the computer and the TO PC port of the DA7.

For Windows/95 or PC compatible computer

Use ONLY a serial cable with a wiring pattern as described below. This cable is available from Panasonic Pro Audio in the United States, part number DA/DB-DIN. Do NOT use a standard serial cable.

Use this cable to connect between the serial port (COM1, COM2, COM3 or COM4) of your PC and the TO PC port of the DA7.

When using a Windows computer, use the following cable:

Pinout configuration of the cable. When building this cable, connect the pins in the following manner:

DA7 port (Mini DIN 8p) pin #   PC port (D-sub 9p) pin #

1	8
2	7
3	2
4	5
5	3

Mini DIN 8 (Male) ───────────────── DB9 (Female)

Pin #		**Pin #**
1	╳	7
2		8
3	╳	3
4		5
5		2

TO PC of the DA7

Windows
Computer

Setting up the DA7

Set up the DA7 for transmitting and receiving data with your PC.
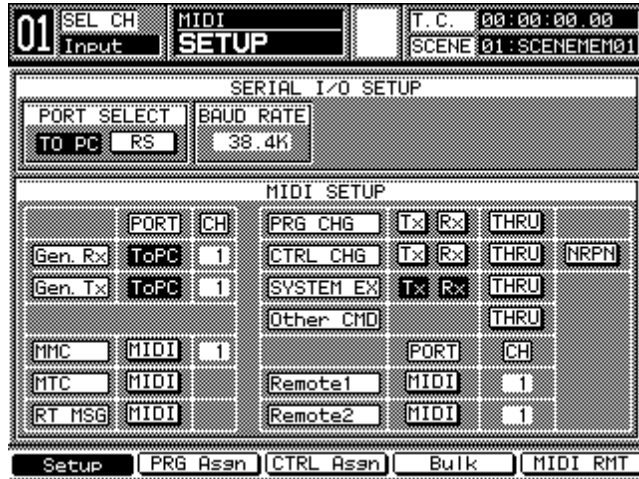
MIDI SETUP Window

1. Select the MIDI button in the SETUP section on the TopPanel of the DA7 to display the [MIDI>SETUP] Window of the LCD display. This is so you can set up the transmit and receive data parameters.

2. Select [TO PC] in the [PORT SELECT] area in the [SERIAL I/O SETUP] area.

3. Cursor to [BAUD RATE] within the [SERIAL I/O SETUP] area of the [MIDI>SETUP] window. Use the parameter dial to select [38.4K].

4. Cursor to [PORT], and select [TO PC] in both the [Gen RX] and [Gen TX] fields in [MIDI>SETUP] window.

5. Cursor to the [CH] area. Be sure to select the same MIDI CH numbers that are used on the Upgrade Utility's [SET UP] window in the [Gen RX] and [Gen TX] fields. Remember that all MIDI channel #s must be the same.

6. Cursor to the [SYSTEM EX] field. Select [TX] and press ENTER. Select [RX] and press ENTER.

7. Select the MIDI button so as to display the [MIDI BULK] window on the LCD display. Cursor to the [RX] field. Select [RX] and press ENTER. The RX field appears in inverse video.
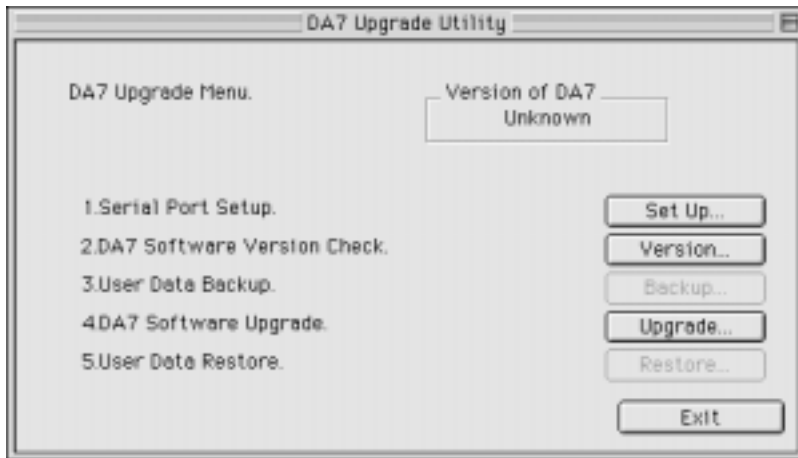

MIDI BULK Window

Operating the DA7 Upgrade Utility

Menu window

Start by displaying the [Menu] window -[DA7 Upgrade Utility] -on your computer.
Select the function that you want to perform by pressing:

Set Up, Version, Backup, Upgrade, Restore or Exit.

[Setup]	This button accesses the [Setup] window. This is where you select the Serial Ports and the MIDI Channels to be used for transmitting and receiving data with the DA7.
[Version]	This button accesses the information about the software version that currently resides within your DA7.
[Backup]	This button accesses the area where you begin the process of backing up the data from the DA7, and where you select the types of data (such as Mixes, Scene Memories, etc) to be backed up.
[Upgrade]	This button accesses the area where you begin the process of upgrading the software in the DA7 (An upgrade takes approximately 20 minutes). The upgrade procedure begins by restarting the DA7. You will then receive messages that display both on the computer monitor and the LCD panel of the DA7 with instructions for upgrading the console.
[Restore]	This button accesses the area where you begin the process of restoring the user data that was saved in the backup operation.
[Exit]	This button closes the DA7's Upgrade Utility.

[SETUP]

Clicking on the [Setup] button displays the [Setup] window. This is where you select the Serial Ports and the MIDI Channels to be used for transmitting and receiving data with the DA7.
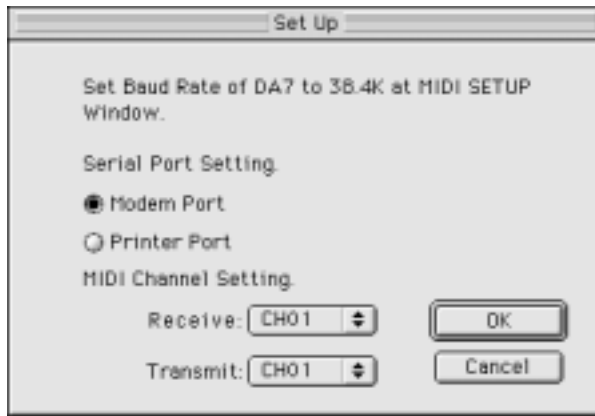
Selecting the serial port

For Macintosh: Select either the Modem Port or Printer Port

For Windows/95:   Select from COM1, COM2, COM3 or COM4 Port

Selecting the MIDI channels (for transmitting and receiving)

Any MIDI Channel 1 through 16 can be selected for Receiving and Transmitting data. Once you have selected a channel in the upgrade utility window, you must also check that it is selected to the same channel that has been set in the [Gen RX] and [Gen TX] fields of the [MIDI>SETUP] Area of the DA7's [MIDI>SETUP] window.

[VERSION]

Clicking on the [Version] button opens a window with a text line saying,
"connecting..." in it.

```
╔══════════════ Version ══════════════╗
║                                      ║
║   Connecting...                      ║
║                                      ║
║                          ┌─────────┐ ║
║                          │ Cancel  │ ║
║                          └─────────┘ ║
╚══════════════════════════════════════╝
```
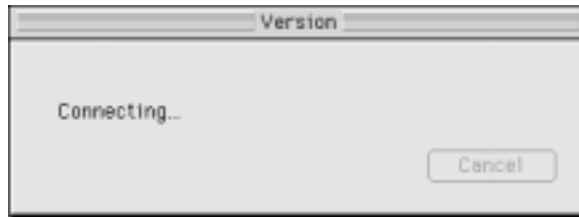
When a successful upgrade has been completed, the window returns to the Menu
window, displaying the version number of the DA7 at the top right.

```
┌── Version of DA7 ──┐
│      Ver. 1.02     │
└────────────────────┘
```
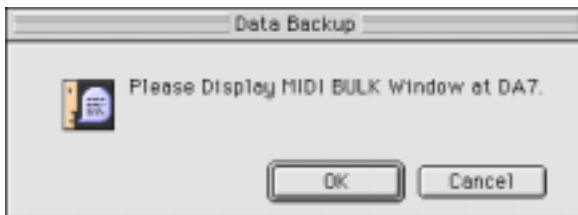
If the connection was not made successfully an error message will appear. Click the
[OK] button to go back to [Menu] window and check the set up ports and
connections.

```
╔═══════════════ Error Message ═══════════════╗
║                                              ║
║    ✋    A communication error occurred.      ║
║         Confirm the cable connection.        ║
║                                              ║
║                           ┌──────────────┐   ║
║                           │      OK      │   ║
║                           └──────────────┘   ║
╚══════════════════════════════════════════════╝
```
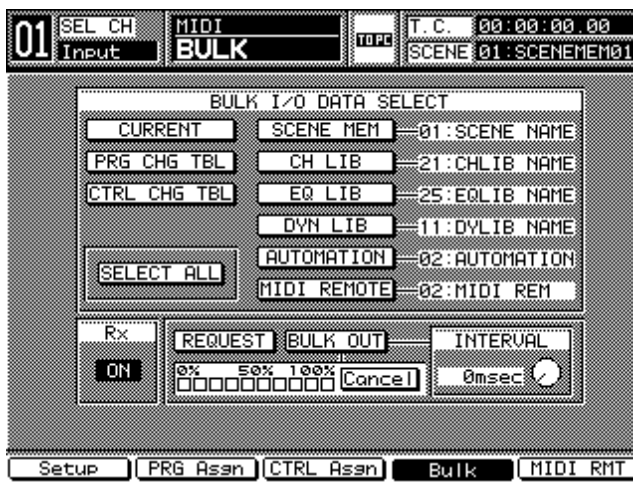
[BACKUP]

1. Clicking on the [Backup] button in the [Menu] window displays the "Please Display MIDI BULK Window at DA7."

2. Press the [MIDI] button in the SET UP section on the Top Panel of the DA7 until the [MIDI>BULK] window appears on the DA7's LCD.

3. Click the [OK] button in the [Backup] window on the computer's display.

[BACKUP]

4. The [DATA Selection] window appears. Select the data that you need to backup onto your computer from the following list:


| [CURRENT]	Current Set Data
[PRG CHG TBL]	Program Change Table
[CTRL CHG TBL]	Control Change Table
[SCENE MEM]	Scene Memory
[CH LIB]	Channel Library
[EQ LIB]	Equalizer Library
[DYN LIB]	Dynamics Library
[AUTOMATION]	Automation
[MIDI REMOTE]	MIDI Remote Library

5. Click the [Backup] button after making a selection.

[BACKUP]

6. A dialogue box for designating the file to be saved appears. In this box, select the folder named "backupdata". If there is no folder already created, you MUST create a folder with the file name "backupdata".
Once this folder is open, you can name the file in which you are saving the data from your DA7. The name of this data file can be anything you wish, however, the file name cannot contain any spaces.
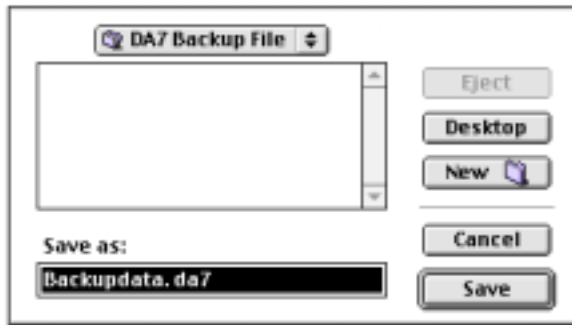

7. Click the [Save] button in the dialogue box for Mac, or click the [OPEN] button for Windows 95. Data reception will begin automatically. A bar graph will display the progress. When data reception is finished, the bar graph disappears and returns to the [DATA Selection] window.
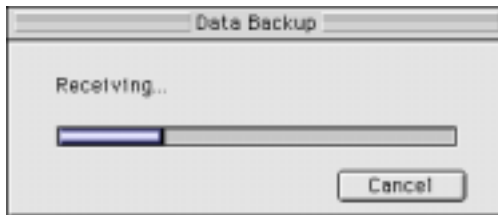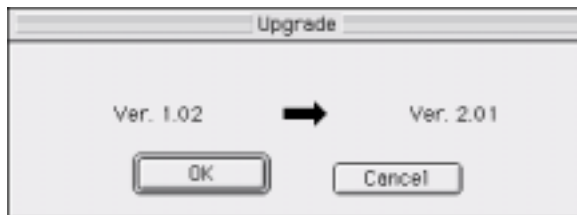

8. Click the [Cancel] button to return to the [Menu] window.

[UPGRADE]

1. Clicking the [Upgrade] button in the [Menu] window of your computer will display a dialogue box showing the source folders and files. Open a folder and select the file for upgrading the DA7. (ex. V200R23.mot.)
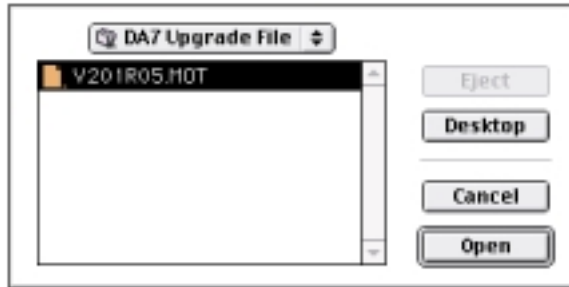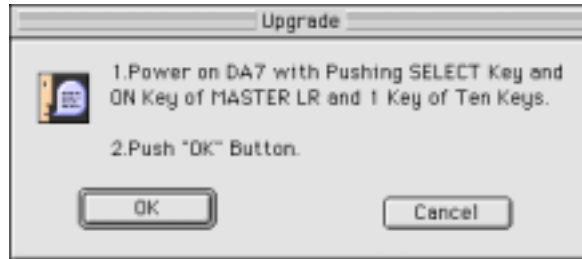
2. Click the [Open] button of the source dialogue box.

3. The Upgrade box is displayed and asks you to confirm both the existing version number and the new one. Click the [OK] button to confirm that the two versions numbers displayed are correct.
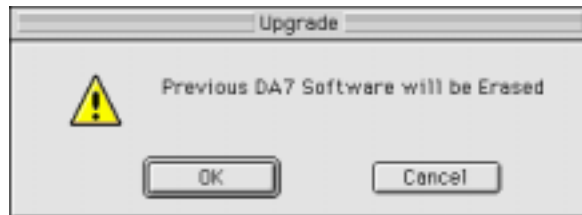
[UPGRADE]

4. Follow the instructions on your computer's display.

Upgrade

1.Power on DA7 with Pushing SELECT Key and ON Key of MASTER LR and 1 Key of Ten Keys.

2.Push "OK" Button.

[OK]   [Cancel]

- Power OFF the DA7.
- Power ON the DA7 while simultaneously holding down the SELECT and ON keys of the MASTER LR Channel and the #1 key on the numeric Ten Key Pad. A message confirming the start of the upgrade will be displayed.
- Cursor to the [OK] button on the DA7 and press the ENTER key

5. Click the [OK] button on the computer's display. A message confirming that a previous program in the DA7 will be erased will appear. This is normal.

Upgrade

⚠ Previous DA7 Software will be Erased

[OK]   [Cancel]

6. On the DA7 LCD display, Cursor to the [OK] button.

[UPGRADE]

**7.** Click the [OK] button on both the DA7 and your computer to begin the upgrade process.
You will see a message saying the internal memory of the DA7 will be erased.

> You must complete steps 5 - 7 within 30 seconds, or the DA7 will exit the updating mode and go back to normal operation.
> If this occurs, start the upgrade process again at Step 4.

8. While the program is being erased, a bar graph will appear on the computer's display and the READ LED in the Scene Memory section will flash.
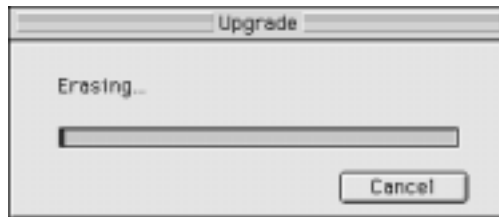
After erasing the existing version is performed, writing of the new version begins writing. While writing, a bar graph will appear and the WRITE LED will flash.

9. After upgrading to the new OS version, the DA7 will restart. The DA7 will return to its normal startup window, and the [Menu] window will appear again on the computer display. This upgrade process will take approximately 20 minutes to complete.

Exiting the Upgrade Utility

Clicking on the **[EXIT]** button in the [Menu] window will close this utility.

[RESTORE]

1. Clicking on this button displays the message "Please Display MIDI BULK Window at DA7" on your computer's display.
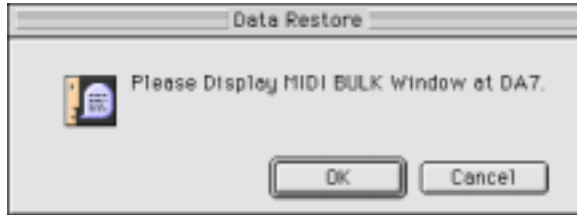
2. Press the MIDI button in the SETUP section of the DA7's Top Panel until the [MIDI>BULK] window appears on the DA7's LCD.

3. Click the [OK] button in the [Data Restore] window on the computer display. The Source selection window appears.
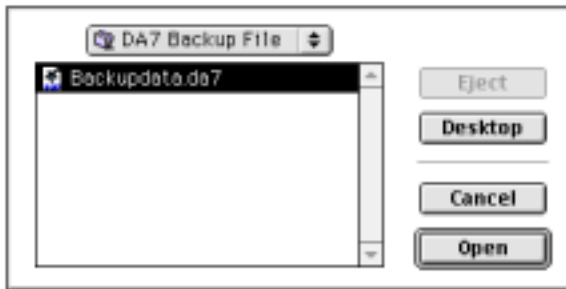
4. Select a folder, then a file that you are going to move back into the DA7. After making the selection, click the [OPEN] button.

[RESTORE]

5. A dialogue box will appear inquiring what version of the operating system of the DA7 was used to create the data, and the current version of the operating system that is now in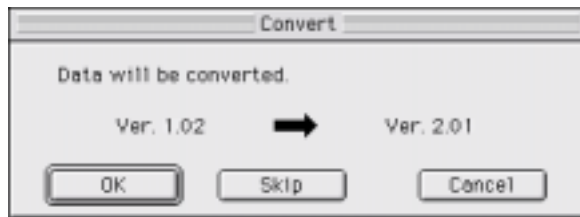 the DA7. For example, if you used OS Version 1.02 to create the data you wish to restore, and you have upgraded to OS Version 2.0, you need convert the settings to use the old data on your DA7.

Click the [OK] button if these are correct. Or click the [Skip] button if the file does not need conversion. Otherwise select the [Cancel] button.

6. If conversion is required, the confirmation dialogue box will appear again and inquire about the versions. Clicking the [OK] button starts converting the setups format from the previous to the latest. A bar graph shows the conversion progress.
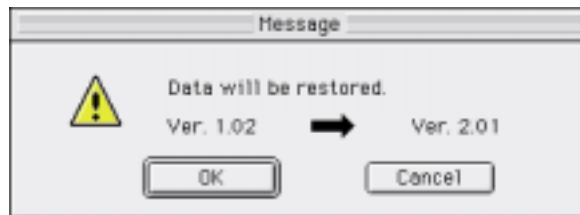
[RESTORE]

7. After converting the files, data transmission starts from the computer to the DA7 and a bar graph will be displayed.
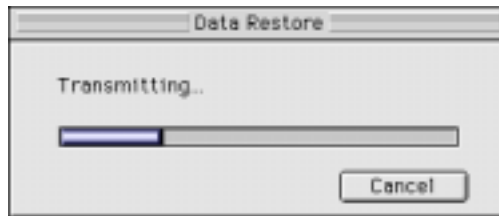
8. The bar graph disappears and the [Source selection] window returns when transmission is complete.

[EXIT]

Click this button to exit the DA7 Upgrade Utility.

Troubleshooting

Although it is rare, under some circumstances you may experience problems with the upgrade procedure. The most common problems arise when there is an interruption to the transmission of the data. This can be caused by a power failure, or by accidentally removing the upgrade cable during the upgrade process.

If this occurs, you will probably end up with a blue screen on the DA7 and it will not operate. However, you can still upgrade the DA7 in the following manner.

1) Power on the DA7. (The DA7 displays only a blue screen.)

2) Open the Upgrade Utility and restart the upgrade procedure. Follow all the directions in the upgrade procedure, but do not perform any functions that require you to operate the DA7.

3) Once you have started the procedure, you will see the bar graph transmitting in Step7, but the READ button and WRITE buttons on the Top Panel may not light or flash, or may flash in a unnatural pattern. This is normal.

4) You may also have to perform the above procedure several times, because you have to re-synchronize the Upgrade Utility and the internal processor of the DA7. Rest assured that it will perform the upgrade once this synchronization takes place.

If the message "It can't be connected with DA7. Confirm the port setting." or "Communication error. Confirm the connection." is displayed, check the following:

Connections

• Confirm if the correct type of cable is being used.

• Confirm that the DA7 and the computer are connected with the correct port settings.

DA7 Settings

• Confirm that [TO PC] is selected for [PORT SELECT] in [MIDI > SETUP] window.

• Confirm that [38.4k] is selected for [BAUD RATE] in [MIDI > SETUP] window.

• Confirm that [TO PC] is selected for PORT of [Gen Rx] and [Gen TX] in the [MIDI > SETUP] window.

• Confirm that the RECEIVE channel of the Upgrade Utility is the same as the TRANSMIT channel of the DA7. (CH of [Gen TX] in [MIDI > SETUP] window)

• Confirm that the TRANSMIT channel of the Upgrade Utility is the same as the RECEIVE channel of the DA7. (CH of [Gen RX] in [MIDI > SETUP] window)

• Confirm that [TX] and [RX] are selected (inverse video) for [SYSTEM EX] in the [MIDI > SETUP] window.

• Confirm that the [MIDI > BULK] window is displayed for BACKUP or RESTORE.

• Confirm that you have correctly selected [RX] to ON in the [MIDI BULK] window on the LCD display. Cursor to the [RX] field. Select [RX] and press ENTER.

Section 2
Upgrade From Version
1.01/1.02/1.10/1.20

Features of Version 2.0

(These features are for DA7 users who are upgrading from Versions 1.01 / 1.02 / 1.10 / 1.20 and are not described in the original DA7 manual. You should keep this document if you have any questions about the functionality of the features described here. If you are upgrading from Version 1.21 or 1.22, please skip Section 2.

Contents

21. New shortcut to set gain to zero for individual frequency bands in the EQUALIZER.

22. Modifications to the Center Frequency Bands of the Equalizer.

23. New graphics in the [EQUALIZER] window.

24. New visual displays in the [DYNAMICS] and [EQUALIZER] windows.

25. New factory defaults for SOLO functions.

26. New factory default settings in the [UTILITY>USER CUSTOM] window.

27. The Selected CHANNEL number is now displayed at all times.

28. New visual indication of LINKED CHANNELS.

29. Dynamics settings are saved when switching from COMP+GATE to EXPANDER.

30. Improved Surround LCD Screen display.

31. Slot 2 and Slot 3 can now accept AES/EBU cards as the word clock master.

32. Improvement of the metering in the LCD display.

33. Correction for the output level of the Oscillator.

34. Correction in the display of MMC command.

35. New default BUS assignments when creating a stereo BUS.

36. Correction of the sub-code data in the digital output signal.

37. All Control Change Numbers are now available for MIDI Remote mode.

1. New Bi-directional communication mode from the MIDI REMOTE.

Previous Versions: The DA7 would only transmit MIDI data, as assigned in the [MIDI>MIDI RMT] Window. It could not receive MIDI Control Change Messages.

Version 2.0: The DA7 can now transmit and receive MIDI data. Settings in the [MIDI>MIDI CTRL ASGN] window can now be changed by receiving external Control Change Messages from an outside MIDI controller.

2. New visual indicators in Automation with Surround.

Previous Versions: The cursor display for recording Surround Automation information was displayed only in a single color, making visual indication between playback and record difficult.

Version 2.0: The Surround Automation Window now displays two types of pointers in the Jog&Fader and Pattern Modes. During playback, a black pointer will indicate the playback data. While a white pointer indicates the real-time operations. While recording automation, the black pointer indicates the data that is being recorded in real time, and the white pointer indicates data that was recorded previously. With this modification, you can punch in and out of record more easily in the Surround Sound Mode.

3. New monitoring functions in the Surround Mode.

Previous Versions: There are several different combinations listed below.

Version 2.0: When the SURROUND MONITOR is ENABLED from the [SOLO/MONITOR] window, and the MONITOR buses are being used for monitoring Surround information, then selecting one of the source buttons, such as L/R, 2TR A, or AUX, in Monitor A or B, will MUTE the other output buses.

> *Note: Remember, in Surround, MONITOR A L/R is Front Left/Right,*
> *MONITOR B L/R is Center/Sub, and MASTER L/R is Surround L/R.*
> *When you cancel the source for the selected MONITOR, normal Surround*
> *Monitor mode returns.*

Previous Versions: Using a channel SOLO button in the Surround Mode did not mute all buses.

Version 2.0: If a channel SOLO is selected in the Surround Monitor mode, all of the bus outputs except the MONITOR A outputs are muted. When you cancel the SOLO mode, the normal Surround Monitor mode returns.

Previous Versions: SURROUND MONITOR MASTER LEVEL was only accessed from within the [SOLO/MONITOR] window.

Version 2.0: The SURROUND MONITOR MASTER LEVEL can be adjusted using the AUX SEND LEVEL knob in the AUX section on the Top Panel of the DA7. When the SURROUND MONITOR is ENABLED from the [SOLO/MONITOR] window, and the individual CHANNEL [PAN/SURROUND] window is displayed, the MASTER LEVEL of the SURROUND MONITOR buses can be adjusted using the AUX SEND LEVEL knob in the AUX section on the Top Panel of the DA7.

4. New shortcuts for the Set up Windows.

Previous Versions: Not Implemented (This shortcut was introduced in Version 1.10.)

Version 2.0: The Windows for the various Set-Up functions can now be directly accessed by pressing the desired Set-Up keys, then enter the number of the Window using the 10 Keypad. Of course, you must be familiar with the Windows of the DA7 to go directly to them! The following chart shows the Set Up buttons, the 10 Key # to press, and which of the Windows is recalled:

SET UP KEY (Window Group)	TEN KEY NUMBER	WINDOW RECALLED
[UTILITY]	[1]	[UTILITY>OSC/BATT]
[UTILITY]	[2]	[UTILITY>CONFIG]
[UTILITY]	[3]	[UTILITY>USR CSTM]
[MIDI]	[1]	[MIDI>SETUP]
[MIDI]	[2]	[MIDI>PRG ASGN]
[MIDI]	[3]	[MIDI>CTRL ASGN]
[MIDI]	[4]	[MIDI>BULK]
[MIDI]	[5]	[MIDI>MIDI RMT]
[D-I/O]	[1]	[D-I/O>INPUT SET]
[D-I/O]	[2]	[D-I/O>TO SLOT]
[D-I/O]	[3]	[D-I/O>DITHER]
[GROUP]	[1]	[GROUP>FADER GRP]
[GROUP]	[2]	[GROUP>MUTE GRP]
[GROUP]	[3]	[GROUP>LINK/STR]

To be continued

Continued from the previous page

SET UP KEY (Window Group)	TEN KEY NUMBER	WINDOW RECALLED
[METER]	[1]	[METER>INPUT1-32]
[METER]	[2]	[METER>BUS/AUX]
[METER]	[3]	[METER>SLOT]
[AUTOMATION]	[1]	[AUTOMATION>SETUP]
[AUTOMATION]	[2]	[AUTOMATION>EXECUTE]
[AUTOMATION]	[3]	[AUTOMATION>EVT EDIT]

5. New shortcut to recall all SCENES directly from the Ten Key Pad.

Previous Versions: The 50 Scenes in the Scene Memory were only accessible from within the [SCENE MEMORY RD/WR] window. If the 10 KEY SCENE RECALL mode was selected to ON in the [UTILITY>CONFIG] window, only the first 10 scenes could be recalled from the TEN KEY PAD.

Version 2.0: When the 10 KEY SCENE RECALL mode is selected to ON in the [UTILITY>CONFIG] window, any of the 50 scenes can be selected from the TEN KEY PAD on the Top Panel of the DA7 by entering 2 digits on the 10 KEY PAD. You must enter "0" before the scene number to recall scenes 01-09. The scene is recalled immediately after pressing the last number. Example: If you wanted to change a scene during automation recording, i.e. going from scene 12 to scene 24, you could get ready to punch the scene in, by selecting the '2' on the 10 Key Pad, then precisely when you wanted the scene to change, press the '4', and the scene will change to scene 24. The same applies in live applications where you will want to manually change from scene to scene without going to the [SCENE MEMORY>RD/WR] window.

6. New Screen navigation using Cursor Repeat Functions.

Previous Versions: The ARROW keys must be pressed repeatedly to move the cursor within the LCD screen.

Version 2.0: By holding down any of the cursor ARROW keys, the cursor will move continuously within the rows or columns of the LCD screen. (The LCD Screen is laid out on a Row/Column Grid for navigation)

7. New shortcut to toggle input sources for channels 9-16.

Previous Versions: Selection of Analog mic/line input sources 9-16 or the inputs from CARD SLOT #3 were only selectable from the [D-I/O>INPUT SET] window.

Version 2.0: Analog mic/line inputs 9-16 can be toggled between the inputs from CARD SLOT #3 by pressing the MMC/CURSOR button and the D-I/O button simultaneously. This is an easy way to switch from your tracking inputs to your tape returns, if you are recording 24 tracks. Another application would be using the ADDA card in SLOT 3 as additional analog inputs from a remote location. This shortcut now allows you easy access to these multiple inputs.

8. New Shortcut to the MONITOR A DIM function.

Previous Versions: The MONITOR A DIM was only adjustable from within the [SOLO/MONITOR] window.

Version 2.0: By pressing the MMC/CURSOR button and the SOLO MONITOR button simultaneously, MONITOR A will DIM (attenuate) by 20dB.

9. Parameter changes can now be made by using the JOG DIAL when the MMC or CURSOR mode is enabled.

Previous Versions: To change any of the parameters of a Soft Knob or addressable box in the LCD display, while MMC or CURSOR was enabled, you must first turn off the MMC or CURSOR function to make the changes using the JOG DIAL.

Version 2.0: This has been changed so that even if MMC is ENABLED, or the JOG DIAL is in CURSOR mode, the JOG DIAL can be used to change the parameters of a soft knob, or an addressable box in the LCD display, by first selecting the box, and by pressing ENTER. The JOG DIAL can now enter data in the selected field. Press ENTER again to return to the previous mode.

10. New shortcut to return to the [CHANNEL] window from the [D-I/O>TO SLOT] window.

Previous Versions: To return to the [CHANNEL] window from within the [D-I/O>TO SLOT] window, you had to press the CHANNEL button in the MASTER DISPLAY section.

Version 2.0: Now to return to the [CHANNEL] window from the [D-I/O>TO SLOT] window, press the DIRECT key in the assignment section of the centrally assignable channel strip on the Top Panel of the DA7.

11. Output assignments are now saved when using the DIRECT button.

Previous Versions: Assignments were cleared when using the DIRECT button

Version 2.0: All previous assignments are now saved when the DIRECT button is pressed for direct channel assignments to the CARD SLOTS.

12. The [AUTOMATION>EXECUTE] default window has changed.

Previous Versions: Arming the Automation via the AUTOMATION/AUX LED button on the Top Panel puts Automation into Record, and retains the currently selected LCD screen.

Version 2.0: Now when you press the AUTOMATION/AUX LED button on the Top Panel of the DA7 to enable Automation for recording, the [AUTOMATION>EXECUTE] window is displayed on the LCD.

13. New Automation default.

Previous Versions: When executing a NEW MIX in the [AUTOMATION>SETUP] window, the DA7 did not change the FADER EDIT MODE. The default was the DA7 would recall the last selection of the FADER EDIT MODE, and it would be used for the NEW MIX.

Version 2.0: When NEW MIX is selected in the [AUTOMATION>SETUP] window, the FADER EDIT MODE automatically defaults to ABSOLUTE.

14. New Cursor position default for the [AUTOMATION>EXECUTE] window.

Previous Versions: The Factory default cursor position in the [AUTOMATION>EXECUTE] window was within the HOURS box of the TIME CODE OFFST.

Version 2.0: When accessing the [AUTOMATION>EXECUTE] window, the cursor position now defaults to the TIME BASE area.

15. New confirmation message when the Automation stops due to low memory.

Previous Versions: No warning was displayed when the Automation stopped recording because the automation memory was full.

Version 2.0: Now, when the internal memory for Automation is full, recording will stop and a confirmation message, "NO MEMORY FOR AUTOMATION RECORDING", will be displayed. If you see this message on a regular basis, you should consider ways to conserve the internal automation memory by using different mixing techniques. One method of conserving memory is to use scene memory recall during automation. For example, scene 1 could be the start of the verse, scene 2 could be the chorus. Then instead of making lots of moves to go from the verse to the chorus, simply recall a scene. Utilizing this method, the savings to the automation memory is substantial. If this method is not sufficient, you should consider our optional MAX software automation package.

16. New indication of a new START SCENE in the [AUTOMATION>EXECUTE] window.

Previous Versions: In the [AUTOMATION>EXECUTE] window, the START SCENE would flash momentarily when entering a new START SCENE.

Version 2.0: Now when a new START SCENE is written, the TIME CODE DISPLAY will change to inverse video momentarily. This confirms that the new START SCENE has been written.

17. New visual indication of LOCATE points.

Previous Versions: Not Implemented (This shortcut was introduced in Version 1.10.)

Version 2.0: In the [AUTOMATION>EXECUTE] window, pushing a LOCATE button while in the MMC mode will momentarily display the location points destination time code in inverse video in the TIME CODE DISPLAY.

18. New LOOP and PLAY Mode.

Previous Versions: It was necessary to select the LOOP button under MMC in the [AUTOMATION>EXECUTE] window when the MMC mode was enabled to perform this function. You then needed to press PLAY to begin the LOOP.

Version 2.0: Pressing the LOOP button on the 10 KEY PAD, or the LOOP button under MMC in the [AUTOMATION>EXECUTE] window when the MMC mode is enabled, sends all MMC devices to LOCATE POINT ONE and starts the PLAY function. (*Note: The LOOP function loops between LOCATE POINT ONE and LOCATE POINT TWO)

19. MMC ON/OFF functions while Pop Up windows are displayed.

Previous Versions: The Pop Up Windows must be closed before MMC functions can be turned On or Off.

Version 2.0: When a Pop Up window, such as the NAME EDITOR or REMOTE COMMAND EDIT TABLE, is displayed MMC functions can now be turned ON or OFF

20. New Warning Message for Surround AUTO MOVE.

Previous Versions: Not Implemented (This message was introduced in Version 1.10.)

Version 2.0: Attempting to put more than 8 channels into SURROUND AUTO MOVE when the CHANNEL [PAN/ASSIGN>SURROUND] window is active, displays the Warning Message "ALREADY MOVING 8 CHANNELS". It is not possible to automate more than 8 channels of Surround panning using the internal automation system.

21. New shortcut to set gain to zero for individual frequency bands in the EQUALIZER.

Previous Versions: It was necessary to select the individual frequency band and turn the GAIN knob until the gain reaches 0.0dB.

Version 2.0: The GAIN of an EQ band can be set to FLAT (0.0dB), without changing the frequency or Q, by pressing and holding down the (H, HM, LM, L) LED button in the equalizer section for 2 seconds. You can also clear ALL of the EQUALIZER bands at once by using the FLAT shortcut on the EQUALIZER window, or by pressing the FREQUENCY button on the Top Panel.

22. Modifications to the Center Frequency Bands of the Equalizer.

Previous Versions	Version 2.0
22Hz	22.4Hz
32Hz	31.5Hz
110Hz	112Hz
130Hz	125Hz

23. New graphics in the [EQUALIZER] window.

Previous Versions: The graph was displayed with a dotted line, and the moving frequency line was solid.

Version 2.0: The lines for the scale of the graph are now solid, and the moving line for the selected frequency is dotted.

24. New visual displays in the [DYNAMICS] and [EQUALIZER] windows.

Previous Versions: The A/B button was momentarily displayed in inverse video when selected.

Version 2.0: The A/B buttons of the [DYNAMICS] and [EQUALIZER] windows now display in inverse video when selected. By selecting the A/B button in the window and pressing the ENTER button, or by pressing the bottom most knob of the EQ or DYNAMICS section, will change the box to inverse video and normal video alternately.

25. The factory defaults for SOLO functions, selected in the [SOLO MONITOR] window, are PFL for POSITION and MIX for MODE.

	Previous Versions	Version 2.0
SOLO POSITION	IN PLACE	PFL
SOLO MODE	SOLO	MIX

26. New factory default settings in the [UTILITY>USER CUSTOM] window.

Previous Versions: The factory default settings in the [UTILITY>USER CUSTOM] window followed the channels themselves, i.e. CHANNEL ONE was assigned to CHANNEL ONE, etc. There was not a NONE selection.

Version 2.0: The factory default settings in the [UTILITY>USER CUSTOM] window are NONE. You can now assign NONE to a channel, avoiding doubled channel assignments, such as CHANNEL 12 assigned to CHANNEL ONE and CHANNEL 12.

27. The Selected CHANNEL number is now displayed at all times.

Previous Versions: The currently selected CHANNEL number was not shown on the LCD display at all times.

Version 2.0: The currently selected CHANNEL number is now displayed in the upper left corner of the LCD display on all screens at all times,

28. New visual indication of LINKED CHANNELS.

Previous Versions: The LINKED CHANNELS were visually indicated in the LCD display only.

Version 2.0: One of the SELECT LED's of the linked channels will flash to display the CHANNEL that is selected when the CHANNELS are linked in stereo or dual mono. This gives you a visual indication that the channels are linked together, and lets you know which channel you are currently have selected in the LCD window and the central channel strip.

29. Dynamics settings are saved when switching from COMP+GATE to EXPANDER.

Previous Versions: When switching between the COMP+GATE and the EXPANDER functions in the [DYNAMICS] window, the settings were reset to the default values.

Version 2.0: All settings are now saved when you switch the DYNAMICS functions from COMP+GATE to EXPANDER. Parameters such as THRESHOLD, RATIO, and ATTACK, no longer reset to factory defaults when you switch between the functions.

30. Improved Surround LCD Screen display.

The screen re-draw time has been improved in V2.0 when in the Surround Sound mode. (e.g. using Auto Move function),.

31. Slot 2 and Slot 3 can now accept AES/EBU cards as the word clock master.

Previous Versions: When the AES/EBU card (WR-AESS) was installed in slot 2 or slot 3, it appeared as if the card could be selected as word clock master, however it was not actually selected.

Version 2.0: When the AES/EBU card (WR-AESS) is installed in slot 2 or slot 3, it can be selected as word clock master.

32. Improvement of the metering in the LCD display.

Previous versions: The levels displayed on the meters in the METER window of the LCD screen was different from that of the Meter Bridge.

Version 2.0: The levels displayed on the meters in the METER window of the LCD screen are now the same as the Meter Bridge

33. Correction for the output level of the Oscillator.

Previous Versions: The output level of the Oscillator was 0.8dB lower than the level that was displayed in the Oscillator window.

Version 2.0: The output of the Oscillator is now correct.

34. Correction in the display of MMC command.

Previous Versions: When the STOP command was sent, <PAUSE> was displayed, and when the PAUSE command was sent, <STOP> was displayed in the bottom right of the LCD screen.

Version 2.0: Now when the STOP command is sent, <STOP> is displayed, and when the PAUSE command is sent, <PAUSE> is displayed in the bottom right of the LCD screen

**35. New default BUS assignments when creating a stereo BUS.**

Previous Versions: When the BUS was set to stereo, the BUS assignments from the monaural channel was copied to the other channel of the pair.

Version 2.0: This problem is solved.

36. Correction of the sub-code data in the digital output signal.

Previous Versions: The sub-code data was always AES/EBU for the REC OUT, AUX1, 2 and the AES/EBU Card (WR-AESS). The DA7 would only send AES/EBU sub-code data, even if S/PDIF was selected using the hardware switches.

Version 2.0: The format of the sub-code data can now be selected from AES/EBU and S/PDIF from within the DIGITAL OUTPUT SELECT Window in the Digital I/O screen. However, the buttons for switching the sub-code format in the screen do not change the hardware switches used for selecting the electric specification on the rear panel or on the AES/EBU cards. These selections must be made in addition to the settings in the DIGITAL OUTPUT SELECT Window. Therefore, the output switch and the sub-code area for must be in the same position.
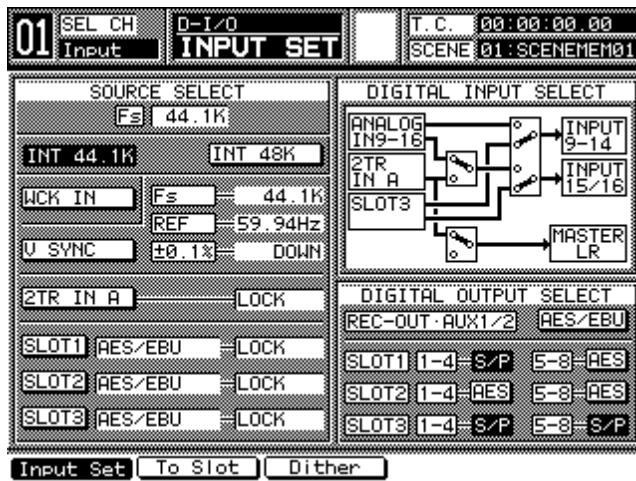
[D-IO>INPUT SET] window

1. Cursor to the desired sub-code area and press the ENTER button. The sub-code area toggles and appears in inverse video if S/PDIF is selected, or in normal video if AES/EBU is selected.

2. Set the output switches on the AES/EBU Cards and on the DA7's Rear Panel to the same position that the respective sub-code area is selected to in the DIGITAL OUTPUT SELECT within the [D-IO INPUT SET] window. These switches set only the electrical differences of RS-422/110 Ω for AES/EBU or 0.5 V/75 Ω for S/PDIF, while the sub-code areas select the sub-code data in the output signals. Therefore, for proper operation, the output switch and the sub-code area for must be in the same position.

37. All Control Change Numbers are available for MIDI Remote mode.

Previous Versions: You could not select MIDI Control Change numbers 6, 38, 96, 97, 98, 99, 100 or 101. They had been reserved by the DA7 operating system.

Version 2.0: You can now select any Control Change Number up to 119.

(This page left blank intentionally.)

Section 3
Upgrade From Version 1.21 or higher

Features of Version 2.0

These features are for DA7 users who are upgrading from Version 1.21/1.22 and are not described in the DA7 manual. All of the features described in Section 1 are included in the Version 2.0 upgrade, even though you may already have some of those functions from a previous version.

Contents

22. New shortcut to switch the built-in SOLO-MUTE on / off.

23. New Threshold level adjustment of analog input PEAK/SIGNAL LEDs.

24. Correction of freezing when faders are moved manually during Automation playback.

25. New factory default settings.

26. New LCD Display default Change.

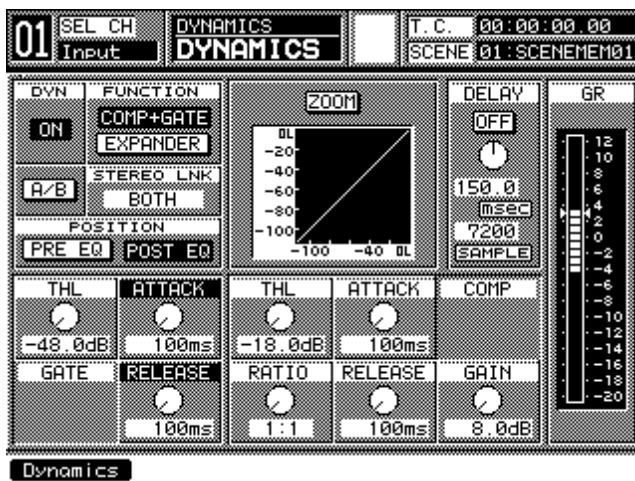**27.** New default setting for Compressor/Limiter

1. Improved resolution for the Gain Reduction meters.

Previous Versions: The DA7's internal Gain Reduction metering was calibrated in 10dB/increments.

Version 2.0: The DA7's internal Gain Reduction metering is calibrated in 2dB/increments.
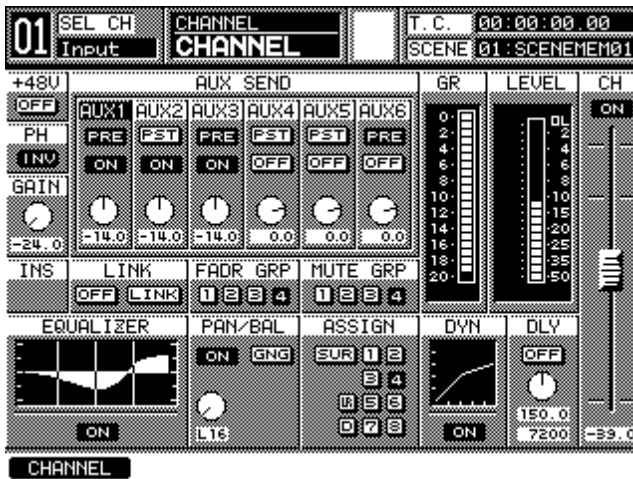
[CHANNEL] window

[DYNAMICS] window

2. Easier Copying of Channel Settings in Multi Channel View.

Previous Versions: The Channel Settings could only be copied from one channel to another by using the Multi Channel View window. You then had to press the [COPY] soft button in the LCD display.

Version 2.0: In addition to the method described above, you may also copy settings for [CHANNEL], [EQ], [DYNAMICS], and [SURROUND] using the following method as well. Enter the Multi-Channel mode on the DA7 by pressing the Multi-Channel View button on the Top Panel. This button is located in the LCD display bridge.

While this window is displayed, press the SELECT button of the channel that you would like to copy from, then press the SELECT button of the channel that you would like to copy it to.

> Notes: In Multi Channel View, you can not use the short cut ON/OFF of Channel LINK or STEREO.

3. New LAYER LINK options in TANDEM mode.

Previous Versions: The default setting was ON, therefore the fader layer selection on one DA7 was duplicated on the Tandem DA7.

Version 2.0: You can select either ON or OFF in the LAYER LINK area of the [D-IO>SLOT] window. If OFF is selected, the fader layers will not be duplicated between the two Tandem connected consoles, and you operate each DA7's layer selection separately while still in the Tandem mode.
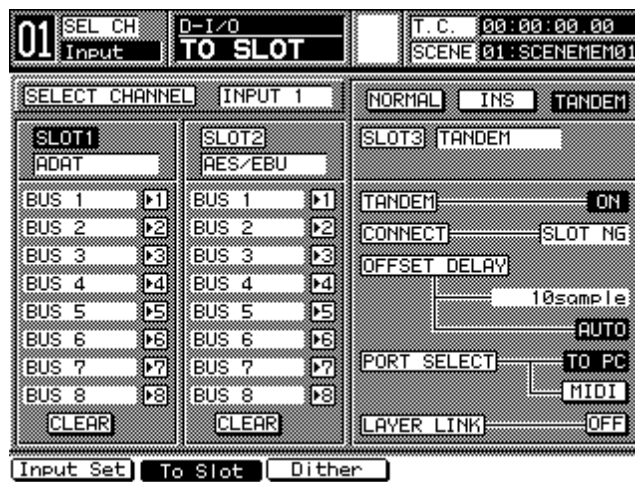
[D-IO>TO SLOT] window

4. MIDI/Custom Fader Layer Settings can now be stored in Scene Memory

Previous Versions: The Scene memory did not include the Custom/MIDI Layer settings, therefore they could not be stored.

Version 2.0: You can save the Custom/MIDI Layer settings to Scenes Memories 0 through 10. When you recall Scenes 0 through 10, the Custom/MIDI Layer settings will be recalled.

5. New EQ default settings for Filter Types

Previous Versions: When you changed the EQ Filter types, the DA7 defaulted to settings of the Q to 1.0 and the Gain to 0.0dB automatically.

Version 2.0: The DA7 retains the values of Q and Gain, even when you change EQ Filter types.

6. New shortcut for returning to the CHANNEL window

Previous Versions: Not Implemented

Version 2.0: The [CHANNEL] window changes to the [SURROUND] window whenever the PAN knob is pressed. To return from the [SURROUND] to the [CHANNEL] window after it has been unintentionally selected, press the PAN knob again. Use this shortcut to change the [SURROUND] window back to the [CHANNEL] window.

7. New default setting of PAN positions when stereo is canceled

Previous Versions: Center was the default setting for both channels. When you assigned channels from STEREO to MONO, the DA7 would return the PAN for both channels to the center.

Version 2.0: Now if you place a pair of channels into the STEREO mode and then select them back to MONO, the default is now left for the odd channels and right for the even channels.
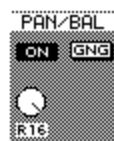
Odd channel   Even channel

8. New feature allows Soloing of the Surround Channels

Previous Versions: When monitoring with the Surround Sound enabled, you could not Solo the Surround enabled Channels. (Solo was always (in stereo) from the Monitor A signal path.)

Version 2.0: When the [SOLO POSITION] is set to [IN PLACE] from within the Solo/Monitor Window, then SOLOing of the Surround Channels will appear in the Surround Monitor. To adjust the monitor level, make the adjustments to the [MASTER LEVEL] in the [SURROUND MONITOR], instead of [SOLO LEVEL].

> Caution: while you are recording Surround signals to Tape, do not use this feature as it can cause a feedback loop.

9. New feature allows monitoring of Tape Returns in Surround Monitor (Playback Only)

Previous Versions: The Surround Sound output signals could be monitored through the Tape Sends only.

Version 2.0: The Surround signals can be monitored through the Tape returns in SLOT #1-#3. To monitor the signals of SLOT 1, press #1 in the Ten-key while holding down the MMC button. Similarly, to monitor SLOT 2 press #2 in the Ten-key while holding down the MMC button, to monitor SLOT 3, press #3 in the Ten Key Pad while holding down the MMC button.

To return to normal operation, press the same buttons on the Ten Key Pad again.

> *Caution: while you are recording Surround signals to Tape, do not use this feature as it can cause a feedback loop.*

10. New 3+1 Surround Mode

Previous Versions: The Surround Mode was always set to 5.1.

Version 2.0: Selecting the Surround Mode for 5.1 or 3+1 is now possible in the [UTILITY>CONFIG] window. If [3+1 SURROUND MONITOR] area is [OFF], then the mode is 5.1 Surround. If [3+1 SURROUND MODE] area is [ON], then the mode is 3+1.
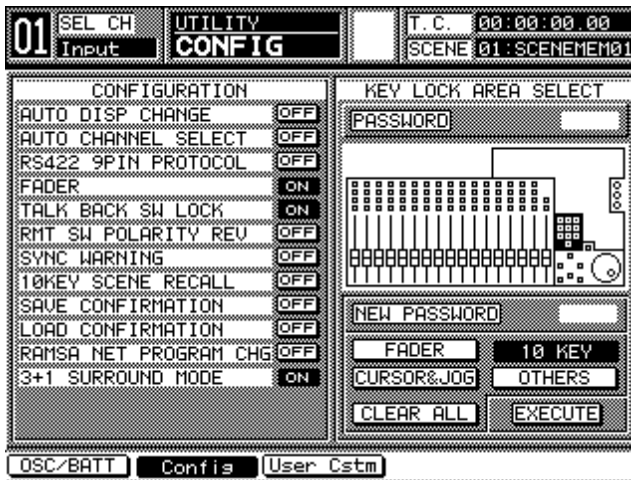
[UTILITY>CONFIG] window

In 3+1 Surround Mode, Bus1 is "L", Bus2 is "R", Bus3 is "C", and Bus4 is "S". "S" is for rear signals. And Bus5 through 8 operates as the normal Buses.

When the [SURROUND MONITOR] in the [SOLO/MON] window is [ON], or if the Surround Channel is Soloed, then this function can not be changed. To change this function, turn the SURROUND MONITOR and all of Surround Channel's Solo to off.

11. New method or controlling the Surround LR/FR Position in Jog & Fader mode

Previous Versions: Adjustments to the Surround Left-Right Position are controlled using the JOG dial. Surround Front-Rear Position is controlled using the MASTER LR FADER.

Version 2.0: Along with the above operations, adjustments to surround Left-Right Position can be performed by using the PAN knob and adjustments for the Surround Front-Rear Position by using the upper knob in the DYNAMICS Section.

12. New method for controlling Surround Sub

Previous Versions: To make adjustments to the Surround Sub send level, you could only adjust it from within the [SEND VOL] Surround Mode.

Version 2.0: The Surround Sub level can now be adjusted in all of the Surround modes.

13. New feature allows communication with Digital Audio Workstations (DAW) in the MIDI Remote window

Previous Versions: This mode had a different MIDI protocol. In version 2.01 it has been changed to be compatible with the Mackie HUI.

Version 2.0: From the [UTILITY>USER CSTM] window, you can now select the DAW MODE. Once you have selected the [DAW] button, you can use the Custom/MIDI Layer to control a Digital Audio Workstation from the Top Panel of the DA7. Many DAWs, such as ProTools, are controllable from an external MIDI controller.

In order to make this DAW MODE compatible with as many Digital Audio Workstations as possible, we have implemented a MIDI protocol that conforms to the Mackie HUI Workstation Controller. To configure the DAW MODE to work properly with your DAW, you should consult the operation manual of your workstation for the configuration of your system.
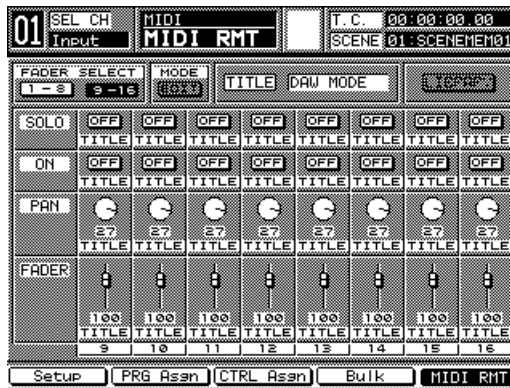
[UTILITY>USER CSTM] window

CAUTION: This window should be checked immediately after you upgrade the console. Because this is a new feature, it is possible for the Input Channels to be assigned randomly after the upgrade. If they are incorrect, simply press either the MIDI RMT or the DAW button depending on what is displayed in the window. Once you press the default button in each section and return to normal operation, it should display NONE in each space. This is the correct default and your DA7 will recall it. You will only need to do this once at the time you upgrade.

The [MIDI>MIDI RMT] window displays 'DAW MODE' in the Library's [TITLE]. You cannot store, edit and recall the parameters of settings stored in this library.
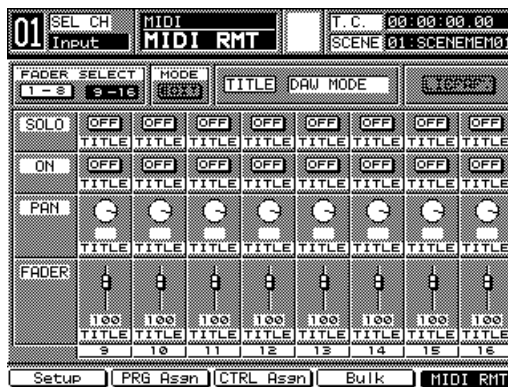
[MIDI>MIDI RMT] window

Operation with ProTools

The following instructions should be confirmed with the user manual for your ProTools set-up. It is included here as a reference guide only. ProTools will communicate with the DA7 in the same manner as a Mackie HUI.

First access the [MIDI>SETUP] window.

Cursor to [Remote1] or [Remorw2] to select [DAW] mode, and select the port [MIDI] or [TOPC] you wish to use to connect to your DAW. Select [CH] to 1.

> *CAUTION: If [Gen Rx]-[CH] are selected to use the same channel as your DAW's [CH], then you should adjust [Gen Rx]-[CH] to another unused channel, because the DAW mode's Operation can affect the DA7's normal Fader or other communication settings.*

Next access to [UTILITY>USER CSTM] window.

Cursor to the desired [DAW] button in the FADER area and press the ENTER button.

The [DAW] button will toggle and appear in inverse video if DAW MODE is selected.

Then press the [EXECUTE] button to determine the ProTools settings.

> *CAUTION: You cannot select both [DAW] buttons. If you select both [DAW] buttons and press [EXECUTE] button, then the DA7 will display a warning sub-window "CONFIRMATION: DUPLICATION!!". To reset from this error message, press [OK] button, and deselect one of the [DAW] buttons.*

From within the ProTools software, select the Mackie [HUI] as the Controller type. Also, make sure that the HUI port is selected in the [MIDI>INPUT DEVICES] window to enable ProTools to see the DA7 as a MIDI Controller.

The DA7's Top Panel can only control and link the operation of FADER, MUTE, SOLO, PAN, Transport, and Bank Swap / Channel Scroll from ProTools.

FADER: When the [MIDI>MIDI RMT] window is displayed in the LCD window, and you have selected the CUSTOM/MIDI Layer, you can operate the DA7 Faders from the DA7's Top Panel or LCD, or from ProTools.

MUTE: When the [MIDI>MIDI RMT] window is displayed in the LCD window, and you have selected the CUSTOM/MIDI Layer, you can operate the Channel ON/OFFs from the DA7's Top Panel or LCD, or from ProTools.

SOLO: When the [MIDI>MIDI RMT] window is displayed in the LCD window, and you have selected the CUSTOM/MIDI Layer, you can operate the DA7 Solos from the DA7's Top Panel or LCD, or from ProTools.

PAN: When the [MIDI>MIDI RMT] window is displayed in the LCD window, and you have selected the CUSTOM/MIDI Layer, you can operate the DA7 Pans from the DA7's Top Panel or LCD, or from ProTools.

If you use ProTools Plug-ins:

If you have a Mono channel with a Stereo Plug-in, you will see two Pan controls on the ProTools mixer.

The DA7 can only control one of these pans at a time. To select the lower (or Pan R), press the PAN/SURR knob and the pan control will appear on the LCD in the MIDI Remote page. To return to normal operation, press the PAN/SURR knob again.

If you have a Stereo channel with a Stereo Plug-in, the [PAN] designation on the right side of the LCD will change and display [PAN R].

If there is no Pan R channel on the ProTools display, then the DA7 will not display a knob for the channel.

Selecting Pan (Pan Left)   Selecting Pan R

Note: The resolution of the Pan Knob in this mode is 11 steps. Also, the Number Box under the Knob will not display the Pan position. The DA7's parameter wheel is the most useful for slow speed pan changes. The PAN rotary knob at the top of the DA7 is useful for medium pan changes and fast pan changes.

Transport: You can control the ProTools' Transport from the DA7 using the MMC controls, however, the DA7 can control only [PLAY], [FF], [REW], [STOP], and [REC].

To operate this feature, press [PLAY] or one of the other keys on the Top Panel of the DA7 while holding down the [MMC] key.

Bank Swap: When the [MIDI>MIDI RMT] window is displayed and the CUSTOM/MIDI Layer is selected, you can utilize the Bank Swap functions of ProTools.

To swap to the right bank, press the Top knob [THL/ATK/DLY] of DYNAMICS/DELAY Section on the Top Panel of DA7.

To swap to the left bank, press the Top knob [Q] of the EQULIZER Section on the Top Panel of the DA7.

Channel Scroll: When the [MIDI>MIDI RMT] window is displayed and the CUSTOM/MIDI Layer is selected, you can utilize the Channel Scroll functions of ProTools.

To scroll to the right channel, press Bottom knob [RATIO/RLS/GAIN] of the DYNAMICS/DELAY Section on the Top Panel of DA7.

To scroll to the left channel, press the Middle knob [Freq] of the EQULIZER Section on the Top Panel of the DA7.

The operation of bank swap and channel scroll functions can only be operated while the [MIDI>MIDI RMT] page and MIDI Remote Layer are displayed on the DA7.

Note: It would be useful to implement a default setting of "FADER AT MINIMUM" when they have no MIDI assignment value to allow the user a clearer focus on the 8 faders used for ProTools control.

TIPS: FLIP key on Top Panel of DA7

1. If you want to use the **Auto Punch-In** feature in ProTools, you should note that the faders on the DA7 are not touch sensitive. However, we have implemented a way to emulate touch sensitivity. To access this mode, press and hold the Flip key of desired channel for as long as you wish to punch in.

When ProTools moves the DA7's Fader, you cannot operate the faders on the DA7. To use the Auto Punch IN functions (Auto Touch, Auto Latch, Auto Write) press the FLIP key of the channel that you want Auto Punch In.

Next, move the Fader you want to Auto Punch In.

When finished, release the FLIP key.

When you stop the Fader, Fader Position jump will back to its previously written automation level.

2. When you set up a MIX Group and you want to release one of group Faders, press the FLIP key of the Group Master Channel. While holding down the FLIP key of the Group Master, you can operate the Groups other member's Faders independently from the Mix Group. When you release the FLIP key of the Group Master Fader, then the Group Member's Fader will link the Group Master Fader again.

Operation with other Digital Audio Workstations

Consult the user manual of your DAW for operation of MIDI controllers. The DAW MODE in the DA7 sends a MIDI Command Protocol compatible with the Mackie HUI.

14. New feature allows the routing of Inputs to an assignable Input Matrix

Previous Versions: The Audio Input signals were pre-assigned to the Faders.

Version 2.0: The Audio Input signals can now be re-assigned (in-groups of eight channels) to a Fader within its group. This is a new window. It is called [INPUT MTX] and is located in the [UTILITY] window group.
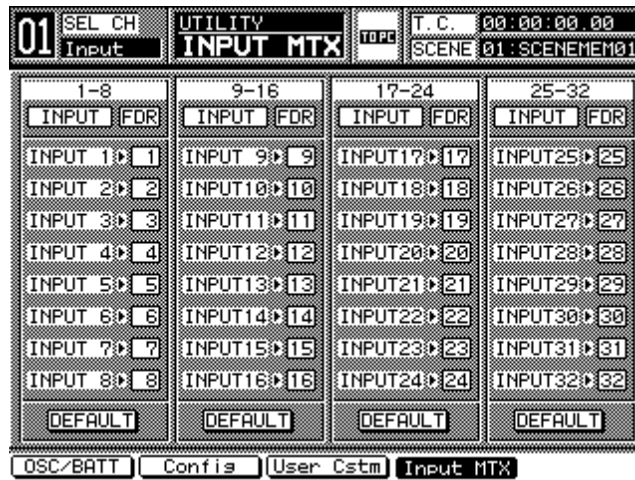
[UTILITY>INPUT MTX] window

Move the Cursor to the channel area, and the desired INPUT box. Select the desired Audio Channel by using the JOG dial. The INPUT box will appear in inverse video. Then, press ENTER button. If you press the [DEFAULT] button, the INPUT box area will change to its normal assignments for each FADER.

> *CAUTION: This window should be checked immediately after you upgrade the console. Because this is a new feature, it is possible for the Input Channels to be assigned randomly. If they are incorrect, simply press the default button in each section to return to normal operation. You will only need to do this when you upgrade.*

15. New feature allows Fader Grouping of the Output Bus Channels

Previous Versions: The Bus Channels could not be included in Fader Groups.

Version 2.0: The Bus Channels can now be assigned to new Fader Groups 5 and 6. The Bus Channels' Fader Group is assignable in the lower level of the right side in [GROUP>FADER GRP] window.
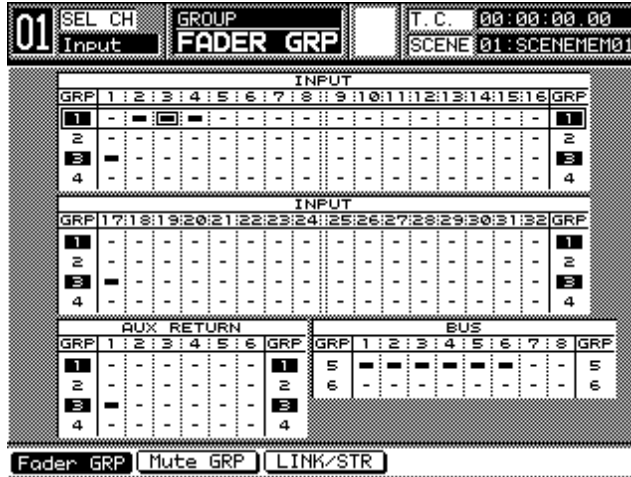
[GROUP>FADER GRP] window

To place a Bus into a group, Cursor to [GRP] 5 or 6 by using the UP or DOWN ARROW button to highlight Group 5 or 6. With the CURSOR in the CURSOR mode, use the Jog Dial to select the desired Bus channel, or press the SELECT button of the Bus channel that you wish to place in a group.

The selection of a Bus in a group is represented by a highlighted black box or "–" mark. The black box means that it is included within the Fader Group, and the "–" mark means that it is not included within the Fader Group.

Press the ENTER button, then Group 5 or 6 will be toggled. Inverse video means Enable Fader Group, and normal video means Disable Fader Group.

16. New feature implements an Input to Output Routing Window

Previous Version: Not implemented

Version 2.0: This is a New Window. The [ROUTING] in [GROUP] window group is used for selecting the routing of the Inputs and Aux Returns to Bus, Master LR, and Surround Enable/Disable.
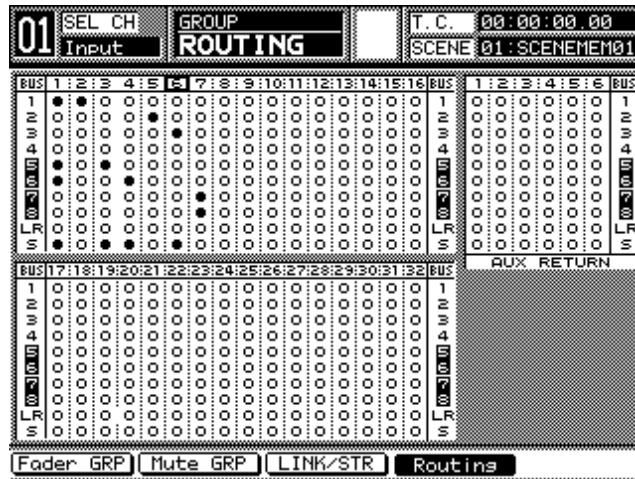
[GROUP>ROUTING] window

If the Input or Aux Return channel is selected to Stereo, then the Center Line between the Odd and Even channels will disappear. (e.g. at above graphics, INPUT 3 and 4.)

If the Bus channel is selected to Stereo, then the BUS channel is toggled and is displayed in inverse video. (e.g. at above graphics, BUS 5,6, and 7,8).

When this window is displayed, the assignments can be changed the by using the 10 keypad in the selected channel of this window "Selected" means cursor on this window (e.g. at above graphics, Input 6.) Don't confuse this with channel selecting. (e.g. at above graphics, Input 01) #1 through #8 is for Bus Assign, #9 is for Master LR Assign, and #0 is for Surround Enable/Disable.

When this window is selected, the Console's LED field indicators will display Routing.

FADER/AUX1 through PAN/SURR/AUX4 are displayed as Bus Assign, Odd Bus

Assignments are Green, Even Bus Assignments are Red, and Both Bus Assignments are Amber. LIBRARY/AUX5 are displayed Master LR Assign, Master LR Assign is Amber. SEL/MAN/AUX6 is displayed Surround Enable/Disable, Surround Enable is Amber.

17. New feature allows UNDO after Enabling the AUTOMATION

Previous Versions: When AUTOMATION is enabled, the DA7 read the Start Scene automatically, however you could not execute the UNDO to return to its previous status.

Version 2.0: The Current Status can be recalled by pressing the UNDO/REDO button to return to the previous status before the Automation was enabled.

18. Manual Locate in the Timecode display area

Previous Versions: To enter a new Location in the Timecode for the MTR, it needed to be entered as a Locate Point.

Version 2.0: In the [AUTOMATION>EXECUTE] window, you can move the cursor into the [TIMECODE] area and press the ENTER button. Now the Timecode can be entered directly by using the Ten Key Pad.
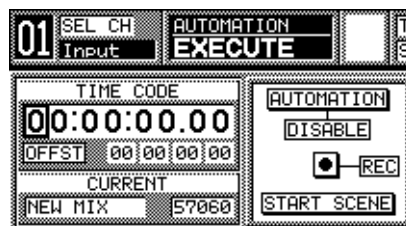
[AUTOMATION>EXECUTE] window

When a number is entered, the cursor will move to next column automatically. Use the LEFT and RIGHT ARROW buttons to move the cursor.

When the desired Timecode is selected, press the ENTER button, the MTR will search to the selected Timecode location.

19. New feature allows separate IN and OUT X-FADE times of scene memories

Previous Versions: The FADER IN and OUT times were set to the same settings.

Version 2.0: The FADER IN and OUT times are Independent and can be adjusted using the Two soft-knobs in the [SCENE MEMORY>XFADE] window.
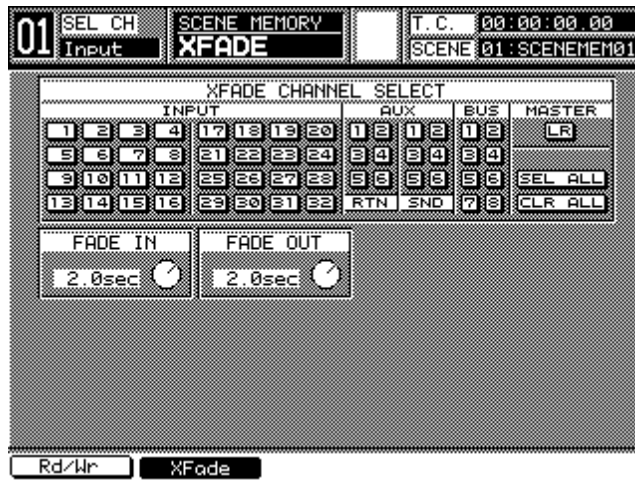
[SCENE MEMORY>XFADE] window

20. New feature allows VTR control with RS-422 9-pin protocol

Previous Versions: Only MMC (MIDI Machine Control) was available.

Version 2.0: Now either MMC or VTR control can be selected.

1. Connect a VTR to the RS-422/485 port on the DA7's Rear Panel.
2. Set the RS422 9PIN PROTOCOL to ON in the [UTILITY>CONFIG] window.
3. Operate the ARROW buttons on the DA7's Top Panel in the MMC mode. Operative buttons are PLAY, FF, REW, and STOP and LOCATE.
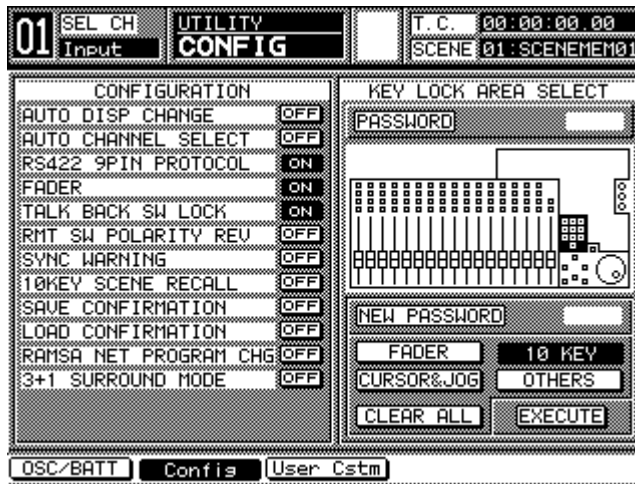
[UTILITY>CONFIG] window

When the RS-422 9PIN PROTOCOL area is ON:

* The REPLAY and LOOP buttons will not function.

* The Communication speed must be set to 38.4 KBPS.

When the RS-422 9PIN PROTOCOL area is OFF, MMC will be the default.

21. New shortcut for switching the built-in oscillator on / off

To switch the internal oscillator [ON] or [OFF] press the UTILITY button while holding down the MMC button on the DA7's Top Panel.

22. New shortcut to switch the built-in SOLO-MUTE on / off

To switch the SOLO-MUTE [ON] or [OFF] press the UNDO/REDO button while holding down the MMC button on the DA7's Top Panel.

23. New Threshold level adjustment of analog input PEAK/SIGNAL LEDs

Previous Versions: The Threshold of the PEAK/SIGNAL LED was fixed at -6.0dB.

Version 2.0: The Threshold of the PEAK/SIGNAL LED can now be adjusted from -10dB through 0.0dB. In the [UTILITY>OSC/BATT] window, there is a [PEAK LED THL] knob with a value in middle level of right side.
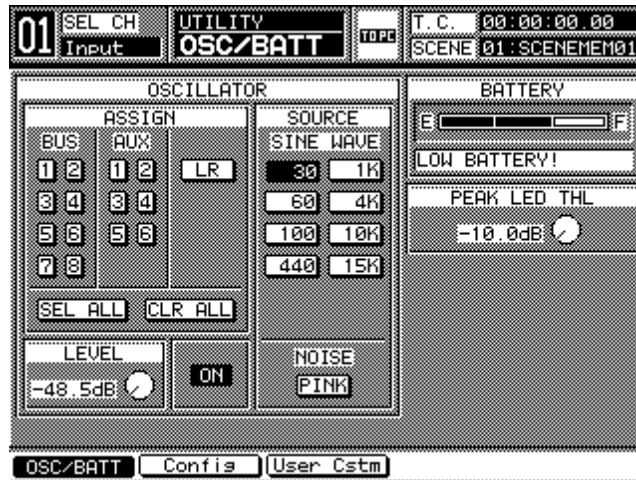
[UTILITY>OSC / BATT] window

Cursor to the [PEAK LED THL] knob, and operate JOG dial. Factory Default value is -6.0dB.

24. Correction of freezing when faders are moved manually during Automation playback

Previous Version: While Automation is being played back, if you manually move the faders, the DA7 will occasionally freeze-up and stop all functions. This is most likely to occur when FADER FADE events (not FADER events) are playing back.

Version 2.0: This has been resolved.

25. New factory default settings

Previous Version: The factory defaults for the AUX Sends and the BUS Channels were OFF. The Fader Levels for the Aux Sends and BUS Channels were (– ∞ dB).

Version 2.0: The factory defaults for the AUX Sends and the BUS Channels are now ON.

The FADER Levels for the AUX Sends and BUS Channels are now set to ±0dB.

26. New LCD Display default Change

Previous Version: Several windows in the LCD display were hot highlighted.

Version 2.0: Now, once you change the value in the [TIME BASE], [SETUP] or [EXECUTE] area in the [AUTOMATION] window, and the [SAMPLE] value of the [DELAY] area in the [DYNAMICS] window, along with the other parameters, will display their values in reverse video until you press the [ENTER] key.

27. New default setting for Compressor/Limiter

Previous Version: The default setting for the Compressor/Limiter Attack time was 10ms.

Version 2.0: The new default setting for the Compressor/Limiter Attack time is now 35ms. All other settings remain the same.

Section 4
APPENDIX
New Default Settings

Upgraded Default Settings
From Versions 1.10/ V1.02/ 1.1./ 1.20

The comparison of the latest version (V 2.0) with the previous versions (V1.00 through 1.20) is shown.

Window Group [MONITOR SETUP]

Item	Parameter	Previous	V 2.0
SOLO MON	POSITION	IN PLACE	PFL
	MODE	SOLO	MIX

Window Group [CUSTOMIZE]

Item	Parameter	Previous	V 2.0
ASSIGN CH	CH1	INPUT 1	NONE
	CH2	INPUT 2	NONE
	CH3	INPUT 3	NONE
	CH4	INPUT 4	NONE
	CH5	INPUT 5	NONE
	CH6	INPUT 6	NONE
	CH7	INPUT 7	NONE
	CH8	INPUT 8	NONE
	CH9	INPUT 9	NONE
	CH10	INPUT10	NONE
	CH11	INPUT11	NONE
	CH12	INPUT12	NONE
	CH13	INPUT13	NONE
	CH14	INPUT14	NONE
	CH15	INPUT15	NONE

CH16	INPUT16	NONE	
BUS1	BUS 1	NONE	
BUS3	BUS 3	NONE	
BUS5	BUS 5	NONE	
BUS7	BUS 7	NONE	

Window Group [DIGITAL INPUT]

Item	Parameter	Previous	V 2.0
DIGITAL OUTPUT	REC-OUT AUX1/2	---	AES/EBU
SELECT	SLOT 1 1-4	---	AES
	SLOT 1 5-8	---	AES
	SLOT 2 1-4	---	AES
	SLOT 2 5-8	---	AES
	SLOT 3 1-4	---	AES
	SLOT 3 5-8	---	AES

Upgraded Default Settings
From Version 1.21 to Version 2.0

The comparison of the latest version (V 2.0) with the previous version
(V 1.21) is shown.

Window Group [CHANNEL]

Item	Parameter	Previous	V 2.0
CH ON (for AUX SEND&BUS only)		OFF	ON
FADER (for AUX SEND&BUS only)		– ∞	0

Window Group [DYNAMICS]

Item	Parameter	Previous	V 2.0
COMP+GATE	COMP ATT	10ms	35ms
EXPANDER	EXP ATT	10ms	35ms

Window Group [OSCILLATOR]

Item	Parameter	Previous	V 2.0
PEAK THL LEVEL		---	**-6.0**

Window Group [CONFIGRATION]

Item	Parameter	Previous	V 2.0
CONFIG	RS422 9PIN PROTOCOL	---	OFF
	3+1 SURROUND MODE	---	OFF

Window Group [INPUT MATRIX]

Item	Parameter	Previous	V 2.0
FDR 1		---	INPUT 1
FDR 2		---	INPUT 2
FDR 3		---	INPUT 3
FDR 4		---	INPUT 4
FDR 5		---	INPUT 5
FDR 6		---	INPUT 6
FDR 7		---	INPUT 7
FDR 8		---	INPUT 8
FDR 9		---	INPUT 9
FDR 10		---	INPUT 10
FDR 11		---	INPUT 11
FDR 12		---	INPUT 12
FDR 13		---	INPUT 13
FDR 14		---	INPUT 14
FDR 15		---	INPUT 15
FDR 16		---	INPUT 16
FDR 17		---	INPUT 17
FDR 18		---	INPUT 18
FDR 19		---	INPUT 19
FDR 20		---	INPUT 20
FDR 21		---	INPUT 21
FDR 22		---	INPUT 22
FDR 23		---	INPUT 23
FDR 24		---	INPUT 24
FDR 25		---	INPUT 25
FDR 26		---	INPUT 26
FDR 27		---	INPUT 27
FDR 28		---	INPUT 28
FDR 29		---	INPUT 29
FDR 30		---	INPUT 30
FDR 31		---	INPUT 31
FDR 32		---	INPUT 32

Window Group [SLOT OUT]

Item	Parameter	Previous	V 2.0
SLOT 3 TANDEM	LAYER LINK	---	ON

Window Group [FADER GROUP]

Item	Parameter	Previous	V 2.0
GROUP 5	ON/OFF	---	ON
GROUP 6	ON/OFF	---	ON
BUS 1 GROUP 5	ON/OFF	---	OFF
BUS 2 GROUP 5	ON/OFF	---	OFF
BUS 3 GROUP 5	ON/OFF	---	OFF
BUS 4 GROUP 5	ON/OFF	---	OFF
BUS 5 GROUP 5	ON/OFF	---	OFF
BUS 6 GROUP 5	ON/OFF	---	OFF
BUS 7 GROUP 5	ON/OFF	---	OFF
BUS 8 GROUP 5	ON/OFF	---	OFF
BUS 1 GROUP 6	ON/OFF	---	OFF
BUS 2 GROUP 6	ON/OFF	---	OFF
BUS 3 GROUP 6	ON/OFF	---	OFF
BUS 4 GROUP 6	ON/OFF	---	OFF
BUS 5 GROUP 6	ON/OFF	---	OFF
BUS 6 GROUP 6	ON/OFF	---	OFF
BUS 7 GROUP 6	ON/OFF	---	OFF
BUS 8 GROUP 6	ON/OFF	---	OFF