OBERHEIM DPX-1 DIGITAL SAMPLE PLAYER

SOFTWARE REVISION 2.1 and 2.2
OWNER'S MANUAL ADDENDUM

September 1987

IMPORTANT NOTICE:
Software Revision 2.1 and 2.2 are distributed with the intention that the installation will be performed by an ECC/Oberheim Authorized Service Center only. Installation of this software by anyone other than an Authorized Service Center will render the 12-month Limited Warranty void.

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Software Revision 2.1 OWNER'S MANUAL ADDENDUM

AKAI S900 Format   **HDX-20 Support**
New Features   **Changes of Operation**

Software Revision 2.1 for the DPX-1 involves a number of changes to the internal operating system of the DPX-1, involving either new features, changes of operation or corrections to operational irregularities in previous software versions. Specifically, Version 2.1 implements the operating system for the playback of Akai S900 sample disks, interfacing support for the Oberheim HDX-20 Music Storage system, a Filter brightness adjustment and a greatly expanded operation of the MIDI Sample Dump Standard function.

This document is a supplement to the DPX-1 Owners Manual, 1st Edition and is intended to be used in conjunction with the manual. In order to best understand the alterations in this revision, we suggest that you try these new changes as you read them. Also, many of the changes incorporated in 2.1 were previously introduced in Versions 1.3, 1.4 or 1.5. If your DPX-1 was updated from any of these three versions, much cf what is described in this addendum will be familiar to you by now, with several items unique to 2.1. But if your DPX-1 was updated tram Versions 1.0 or 1.1, all of the functions and changes discussed in this addendum will be new to you. Therefore, we strongly recommend reading this document in its entirety so that you will become thoroughly acquainted with the new features and changes involved with Revision 2.1.

Additions

1. **NEW FEATURE:**
    Akai S900 Format

    This version of DPX-1 software includes the addition of a new operating system that permits loading and playback of Akai S900 sample disks. The procedure for using Akai S900 disks is identical to that used for the loading and playback of Oberheim Backups, Mirage, and Prophet 2000-series disks. Refer to page 19 in the DPX-1 Owners Manual 1st Edition for a detailed description of this procedure.

    As with the three other sample disk formats, the DPX-1 will perform only the functions that the Akai 5900 disk tells it to do. Mapping of the sounds, Voice assignments, preset numbers and the like are reproduced by the DPX-1 as the disk instructs. Refer to page 33 in the manual for more information.

2. **NEW FEATURE:**
    HDX-20 Support

    Version 2.1 also adds interfacing support for the Oberheim HDX-20 Music Storage System. The HDX-20 is a rack-mountable, SCSI-based hard disk drive for mass storage of DPX-1 sounds. The HDX-20 is capable of storing 20 megabytes of sarnple data, divided into 19 Banks of sounds.

    The operation of the HDX-20 is beyond the scope of this addendum. For more information, please refer to the HDX-20 Music Storage System Owners Manual, 1st Edition.

3. **NEW FEATURE:**
   CD (Compact Digital Disk) ROM Interface

   Version 2.2 supports the optional CD ROM interface to the DPX-1. The 9-pin interface connector is mounted on a back panel plate that is available as an optional kit. The back plate also houses the eight 1/4" audio jacks for the Individual Voice Outputs upgrade (see NEW FEATURE #4 "Individual Voice Outputs" on the next page). Therefore, the CD ROM and the eight IVO capabilities are offered together in one package.

   The CDROM interface/Individual Voice Outputs update kit may be obtained by contacting any ECC/Oberheim Authorized Dealer or Service Center. Contact the Oberheim Dealer or Service Center nearest you for prices and availability[1].

   The CDROM interface feature simply allows the user to connect the Optical Media International CDS3 CDROM drive unit to the DPX-1 and load the samples to be played from the CD. ECC/ Oberheim does not manufacture or distribute this drive unit, but detailed information concerning the capabilities and specifications of the CDS3, as well as price and availability, may be obtained by contacting:

   > Optical Media International
   > 485 Alberto Way
   > Los Gatos, CA 95030
   > 408-395-4332

CD ROM Interface Procedure:
   - Before connecting, both the DPX-1 and the CDS3 drive unit must be turned off.

   - Obtain a cable with a DB-9 connector at each end. Use this cable to connect the drive to the 9-pin connector on the back panel of the DPX-1. The DPX-1 must plug directly into the DB-9 port on the CDS3. Do not use the "Macintosh in Center Position" mode on the CDS3.

   - Turn the CD ROM drive on first, then the DPX-1. When shutting down, reverse this order: power the DPX-1 off then the CD ROM disk drive.

   - When loading sounds from the CD ROM, the DPX-1 regards the CD ROM as if it were a floppy disk, although the actual load command is performed by the CDS3 drive instead of the pressing the LOAD DISK key on the DPX-1's front panel. (Refer to the Owner's Manual of the CD ROM for the exact procedure.) During the load routine, the DPX-1 's display will read **Cd,** indicating that the source of data is from the CD ROM.

   - While the data is being dumped, do not abort the transfer from the CDS3 keypad.

   - Once the data from the CD ROM is successfully loaded, the DPX-1 operates normally.

4. **NEW FEATURE:**
   Individual Voice Outputs

   This version also supports the eight Individual Voice Outputs capability — one direct output jack for each of the eight Voices. These eight output jacks are included on the back panel plate, along with

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[1] The earliest version of the DPX-1 requires a minor modification that installs a cable assembly that connects the CD ROM interface/Individual Voice Outputs hardware to the DPX-1 circuitry. If your DPX-1 requires this modification, contact your Service Center to have it installed. Oberheim will cover this change under Warranty.

the CD ROM interface, that is available as an optional kit. The CD ROM interface/Individual Voice Outputs update kit may be obtained by contacting any ECC/Oberheim Authorized Dealer or Service Center. Contact the Oberheim Dealer or Service Center nearest you for prices and availability. Details of this feature are outlined below:

a. The MONO jack is active at all times.

b. Each IVO jack outputs approximately 1.2V pp, which appears on a VU meter as 0 dBV. The jacks are the standard 1/4" two conductor type: tip is hot, sleeve is ground. Connections should be made with standard 2-conductor shielded audio cables.

c. The DPX-1 mutes the MONO jack upon power-down to minimize audio thump, but does not mute the IVOs. Caution must be exercised by lowering the faders on the mixer prior to power-down to avoid possible speaker or audio component damage.

d. This feature treats each of the formats with slight differences, described as follows:

   ▪ **Emulator II:** E-II disks assign a specific sample to a specific Voice or group of Voices. The DPX-1 will in turn make assignments exactly as the disk instructs. The Voice will then play its assigned sample to its corresponding Individual Output.

   ▪ **Prophet 2000:** The P-2000 employs a feature called "Dynamic Allocation" which can be saved to the disk. When Dynamic Allocation is switched off, the DPX-1 maps sounds in the left keyboard map to Voice ports 1 through 4, and maps the sounds in the right keyboard map to Voice ports 5 through 8. If Dynamic Allocation is switched on, the IVOs will rotate, assigning each new note to the next available Voice.

In addition, there is a separate feature on the Prophet 2000/2002 that allows you to select MIDI Mono — MIDI Specification "Mode 4: OMNI Off/Mono" that permits each sample to play polyphonically from its own MIDI Channel. If Mode 4 is saved to the disk, however, keyboard mapping is ignored. To make this function's operation clearer, here's how it works when a disk that has Mode 4 enabled is loaded into the DPX-1:

The Prophet-2000 series of samplers (P-2000, P-2002 and P-2002+) store a total of 16 sounds in memory, mapped into 12 presets. If the DPX-1's MIDI CHANNEL function is set to Channel 1, Sound 1 will play, polyphonically, on incoming MIDI notes on Channel 1. Sound 2 will play from MIDI Channel 2, all the way through Sound 16 on Channel 16. If the MIDI CHANNEL is set to Channel 2, everything moves up one category — Sound 1 on Channel 2, Sound 2 on Channel 3, etc. Since the sound samples move up one Channel Number when the Basic Channel is set to 2 on the DPX-1, Sound 16 "wraps around" to Channel 1.

If Mode 4 is used, the IVOs will rotate, assigning each new note to the next available Voice. As successively higher MIDI Channels are selected, the higher Sound Numbers wrap around to their lower corresponding MIDI Channels. The following table will help in understanding how this operates.

MIDI MONO
Voice and Channel Assignments

BASIC CHANNEL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sound 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sound 2	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	1
Sound 3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	1	2
Sound 4	4	5	6	7	8	9	10	11	12	13	14	15	16	1	2	3
Sound 5	5	6	7	8	9	10	11	12	13	14	15	16	1	2	3	4
Sound 6	6	7	8	9	10	11	12	13	14	15	16	1	2	3	4	5
Sound 7	7	8	9	10	11	12	13	14	15	16	1	2	3	4	5	6
Sound 8	8	9	10	11	12	13	14	15	16	1	2	3	4	5	6	7
Sound 9	9	10	11	12	13	14	15	16	1	2	3	4	5	6	7	8
Sound 10	10	11	12	13	14	15	16	1	2	3	4	5	6	7	8	9
Sound 11	11	12	13	14	15	16	1	2	3	4	5	6	7	8	9	10
Sound 12	12	13	14	15	16	1	2	3	4	5	6	7	8	9	10	11
Sound 13	13	14	15	16	1	2	3	4	5	6	7	8	9	10	11	12
Sound 14	14	15	16	1	2	3	4	5	6	7	8	9	10	11	12	13
Sound 15	15	16	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Sound 16	16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

How the Chart Works:
From the top row titled BASIC CHANNEL, find the MIDI CHANNEL you selected on the DPX-1. From that vertical column, read the MIDI Channel that corresponds to the Sound Number along the left-hand margin. As an example, if you selected MIDI CHANNEL 9 on the DPX-1, Sound 1 plays monophonically from notes coming in on Channel 9, Sound 2 = Channel 10, Sound 3 = Channel 11, Sound 4 Channel 12, Sound 5 = Channel 13, Sound 6 = Channel 14, Sound 7 = Channel 15, Sound 8 = Channel 16. At this point, the MIDI Channels wrap so that Sound 9 = Channel 1, Sound 10 = Channel 2, Sound 11 = Channel 3, Sound 12 = Channel 4, Sound 13 Channel 5, Sound 14 = Channel 6, Sound 15 = Channel 7 and Sound 16 = Channel 8.

The modulation capability of the DPX-1's MIDI Mono function is implemented such that Pitch Bend and Vibrato information are recognized independently per Voice.

Prophet 2002+: In addition to Dynamic Allocation just discussed, the P-2002+ employs a feature unique to its design called "Fixed Output". The Fixed Output function is saved on the disk and the DPX-1 is also capable of reproducing this feature:

If Fixed Output is used, the 16 sounds are assigned to the Voices as follows: Sound ito Voice 1 (fed to Individual Output 1), Sound 2 to Voice 2 (fed to Individual Output 2), and so forth. Since there are eight Voices and 16 sounds, the DPX-1 doubles the assignments such that Sound 9 plays from Voice 1 (Output 1), Sound 10 plays from Voice 2 (Output 2), Sound 11 on Voice 3 (Output 3), etc. The sounds will be mapped across the keyboard as defined on the disk except they will play monophonically when Fixed Output is enabled, as illustrated by this chart.

FIXED OUTPUT
Voice and Output Assignments

Sound 1 Sound 9	Sound 2 Sound 10	Sound 3 Sound 11	Sound 4 Sound 12	Sound 5 Sound 13	Sound 6 Sound 14	Sound 7 Sound 15	Sound 8 Sound 16
l	l	l	l	l	l	l	l
VOICE 1 OUTPUT 1	VOICE 2 OUTPUT 2	VOICE 3 OUTPUT 3	VOICE 4 OUTPUT 4	VOICE 5 OUTPUT 5	VOICE 6 OUTPUT 6	VOICE 7 OUTPUT 7	VOICE 8 OUTPUT 8

These assignments always remain as listed, regardless of MIDI CHANNEL selection (that's why they're called "fixed").

When using this particular arrangement of Fixed Output on plus MIDI Mono on, there is an enormous flexibility in being able to access all 16 sounds at once through the use of MIDI Mode 4 (see the explanation of this function in the previous section, bottom of page 2). The only limitation is that two notes play the same Voice — for example, a MIDI note is received on Channel 3 followed immediately by a MIDI note on Channel 11 (both will trigger Voice 3) —successive incoming notes will rob from each other. Stated another way, you have a possible 16 sounds "competing" for only eight Voices.

In addition, when MIDI Mono and Fixed Output are both used, as higher MIDI Channels are selected, the higher Sound Numbers wrap around to their lower corresponding MIDI Channels, just as when MIDI Mono is used alone. The difference is that the Sounds will remain assigned to their Voices because of the Fixed Output being enabled. Its is only the MIDI Channels that shift.

Mirage: The Mirage provides a feature called Mono Mode whereby the sound on each of the two Banks plays from two Voices (or in certain cases four Voices) only. The DPX-1 will interpret this information as follows:

1. if a Bank is in Mono Mode and the DPX-1 is in Single Oscillator Mode *(do* is *oF,* the disk does not incorporate Mix Mode, or Chorus Mode detune is not> 1), a single DPX-1 Voice for each sound will be assigned to play the sound from that Bank. The Lower Bank's sound will play on Voice 1 (and be fed to Individual Output #1) and the Upper Bank's sound will play on Voice 8 (and be fed to Individual Output #8). If both Banks are in Mono, Voices 2 through 7 are not used in and there corresponding Individual Outputs will be silent.

2. If a Bank is in Mono Mode and the DPX-1 is in Dual Oscillator Mode *(do* is *on* and the disk incorporates Mix Mode or Chorus Mode with detune greater than 1), two DPX-1 Voices will be assigned to play the sounds from that Bank: the Lower Bank's sounds will play on Voices 1 and 2 (and be fed to Individual Outputs #1 and #2) and the Upper Bank's sounds will play on Voices 7 and 8 (and be fed to Individual Outputs #7 and #8). If both Banks are in Mono Mode, Voices 3, 4, 5 and 6 are not used and their corresponding Individual Outputs will be silent.

<div align="center">

Voice Number Assignments

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	Lower Bank	Upper Bank
Mono Mode, Single Oscillator	1	8
Mono Mode, Dual Oscillator	1 & 2	7 & 8

3. It is possible that only one of the two Banks could be in Mono Mode and the other in the normal polyphonic mode. If this is the case, Voices not used as Mono Mode Voices in the Mono Bank will still play polyphonically in the normal Bank and will "rotate", assigning each new incoming MIDI note to the next available Voice and, of course, the sounds will rotate out among the Individual Voice Outputs as well.

4. If a Mirage-type disk is loaded that plays in the normal polyphonic keyboard mode (Mono Mode is off for both Banks), all eight Voices will rotate.

IMPORTANT NOTE: Software version 2.1 or 2.2 *must* be installed before the CD ROM/ Individual Voice Outputs update is installed. On the other hand, version 2.1 or 2.2 can be installed and used without the CD ROM/Eight IVO hardware present.

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5. NEW FEATURE

Disk Writing

The 2.2 Software Version permits the DPX-1 to write the contents of its own internal RAM to disk. The data is transferred to the new disk in the Oberheim Format only, which means that the "copy" is really not a copy but a backup of the data in Oberheim language. Therefore, it is obvious that the new disk cannot then be loaded into any device except a DPX-1.

At first glance, this feature's usefulness may not be immediately obvious, but five significant advantages are now available to the DPX-1 owner. First, there is now an economical way to make backups of the user's library, since blank disks have a relatively low per-unit cost when purchased in quantity. Prior to the addition of this function, backup disks had to be purchased outright (an expensive proposition if the user did not own or have easy access to any of the DPX-1 supported samplers, or made on one of these instruments, if available).

Second, loading a disk made on the DPX-1 may be more reliable since it was the DPX-1 that made the disk. Problems caused by differences in head alignment of the various drives will be lessened if DPX-1 generated disks are used on a regular basis.

Third, backup disks made on the DPX-1 will load faster than the original-format disk. In some cases, increased speed may not be noticeable; in others, the decreased load-time will be considerable since the data-conversion process has already been done. In no case will the load time be longer than the original-format disk.

If the user backs up his/her entire library in this manner, the user now has a backup library that can be used with the DPX-1 routinely and the originals stored safely as the "backups".

The fourth advantage is that the DPX-1's Disk Writing function also saves configuration parameters as an optional procedure. Items such as the first preset selection, MIDI Channel, relative tuning, etc. are all recalled at load time when this method is used.

Fifth, you can make a backup disk of DPX-1 data that originated from the CD ROM or a MIDI Sample Dump.

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The DPX-1 's disk writing function is accomplished as follows:

1. Disk writing is performed in the **3.5"** drive only. The DPX-1 will not write to a 5.25" disk.

2. The diskette used for the backup must be a double-sided, double-density type.

3. Making backups on the DPX-1 involves two phases, Formatting and Writing. Formatting a disk must take place before sample information can be written to the disk.

FORMATTING Procedure

- Enter EXTENDED FUNCTIONS. The display will read **Fd** for "Format Disk". The **Fd** display is now the first message to appear in the window when EXTENDED FUNCTIONS is selected. (In previous revisions, the display would first read *FL* for "Filter Track" which now occupies the second display if> is pressed.)

- Insert the disk to be formatted into the 3.5" drive with the Write-Protect feature on the disk defeated (the Write-Protect hole should be closed). If a protected disk is used, the display will give a *Pd* message, indicating that you are attempting to use a "Protected Disk".

- Press ENTER.

  ❑ If the disk you inserted is not in a format recognizable to the DPX-1, formatting of the disk will take place, which takes approximately two minutes to complete. During the last phase of the format routine, the DPX-1 will also perform a full verify process to check the disk for errors. During this time, **Fd** will remain displayed, and the BUSY LED and the 3.5" drive's DRIVE ACTIVE indicator LED will both light.

  ❑ If the formatting process was successful, both the BUSY and DRIVE ACTIVE indicator LED's will go out, informing you that the disk has been formatted and verified, and can now be used to write data.

  ❑ If the display **dE** appears and the ERROR LED flashes after the BUSY and DRIVE ACTIVE LED's go out, the DPX-1 has determined that the disk may be defective and the formatting procedure should be attempted a second time. If you experience yet another failure, the disk should be discarded.

  ❑ Pressing ENTER, <or>, or the Function key will clear the *dE* error message from the display and cause the ERROR LED to go out.

  ❑ If the disk you inserted has already been formatted by this procedure (but nothing has been written to it yet), the display will read **bd** for "Blank Disk" as a reminder that the disk is already formatted. At this point you may press the Function button to exit the formatting mode, saving you the two-minute wait. You have the option of pressing ENTER again to "re-format" the disk but this is unnecessary, unless you suspect that the disk is bad and want to re-format anyway.

  ❑ If the disk you inserted has been formatted and written, or is a recognizable original-format disk, the display will read *nb* for "Not Blank", informing you that there is some form of data on the disk. This prevents the possibility of the unwanted erasing of a disk you intend to keep. Press the Function button to exit this mode and eject the disk. On the other hand, if you want to re-use the disk for different data, press ENTER a second time and the disk will be erased and formatted. Reformatting is not necessary, however, to re-write backup disks.

WRITING Procedures

Two types of Disk Writing are possible. The first is the obvious saving of the samples and their related playback parameters (looping data, envelope settings, sample rate, filtering, etc.). The second type of data that can be saved to disk is the current DPX-1 configuration parameters which include Patch No., MIDI Channel, the Fine Tune setting, and so forth — after the disk is written with sample data (configuration data cannot be save to a disk that has only been formatted).

1. Saving Sample Data

▪ Enter DATA DUMP. The display will read **dd** for "Disk Dump". The **dd** display is the first message to appear in the window when DATA DUMP is selected. (In previous revisions, the display would read **Sd** only for "Sample Dump" which now occupies the third display if > is pressed.)

▪ Insert the disk to be written into the 3.5" drive with the Write-Protect feature on the disk defeated (the Write-Protect hole should be closed). If a protected disk is used, the display will give a **Pd** message, indicating that you are attempting to use a "Protected Disk".

▪ Press ENTER.

❑ If the disk you inserted has been formatted and is blank, the DPX-1 will write all of the relevant data in its internal RAM to the disk. This routine will take up to one minute depending on the amount and type of data being written. During this time, **dd** will remain displayed, and the BUSY LED and the 3.5" drive's DRIVE ACTIVE indicator LED will both light. The DPX-1 will also perform a full verify process to check the disk for errors.

❑ If the data is found to be valid, the BUSY and DRIVE ACTIVE indicator LED's will go out. The disk writing function was successful and you now have a reliable backup.

❑ If one or more errors are detected, **dE** will appear in the display and the ERROR LED will flash after the BUSY and DRIVE ACTIVE indicator LED's go out. At this point, you may attempt to start over and re-write the disk. If the disk is found to contain errors after the second write attempt, the disk should be reformatted or discarded.

❑ Pressing ENTER, <or>, or the Function key will clear the **dE** error message from the display and cause the ERROR LED to go out.

❑ If the disk you inserted has not been formatted in the Oberheim DPX-1 format, the display will read **nF** indicating "No Format". At this point, you should enter EXTENDED FUNCTIONS and format the disk.

❑ If the disk you inserted has already been formatted and written, the display will read **nb** for "Not Blank", informing you that there is some form of data on the disk. This prevents the possibility of the unwanted erasing of a disk you intend to keep. Press the Function, <or> keys to exit this mode, and eject the disk. On the other hand, if you want to re-use the disk for different sample data, press ENTER a second time and the disk will be erased and re-written.

2. Saving Configuration Parameters

The values of all front panel selectable parameters can also be saved on a backup disk using the *SP* ("Save Parameters") function in DATA DUMP. This feature is especially useful when you want to load a backup disk and have the DPX-1 recall certain pre-determined parameters after the load. For example, you may find it necessary to have the DPX-1 select MIDI Channel 4 (OMNI off), with a FINE TUNE setting of 60 and recall preset 6 as the first Patch No. when the load is complete. Thus, this feature allows you to play the DPX-1 immediately with the desired preset, MIDI Channel etc. recalled automatically during the load. Rather convenient, eh?

The SP function can be performed only if the disk you intend to write to already has sample data on it as a backup disk. Attempting to save configuration parameters to a non-Oberheim formatted disk or a **bd** blank disk (one that was DPX-1-formatted only) will result in an error message.

When configuration data is transferred to disk, the following parameters are saved:

PATCH NUMBER: the number stored on the disk is the actual current valid Patch Number
(Which may not be the last displayed Patch Number).
MIDI CHANNEL   including OMNI Mode (**on**)
FINE TUNE   values
MIDI CONTROLLERS (**CE**) **on** or **oF** and MIDI Echo (**EC**) **on** or **oF**
FILTER (**FL**)   Limit **on** or **oF**
Dual Oscillator (**do**) status **on** or **oF**

Procedure for Saving Configuration Parameters —

▪ Enter DATA DUMP. Press the> key once to select SP mode.

▪ Insert the disk to be written into the 3.5" drive with the Write-Protect feature on the disk defeated (the Write-Protect hole should be closed). If a protected disk is used, the display will give a **Pd** message, indicating that you are attempting to use a "Protected Disk".

▪ Press ENTER.

❑ If the disk you inserted has been formatted and written with valid sample data, the DPX-1 will write its current configuration parameters to the disk. This routine will take only a few seconds to complete. During this time, **SP** will remain displayed, and the BUSY LED and the 3.5" drive's DRIVE ACTIVE indicator LED will both light. The DPX-1 will also perform a verify process to check the disk for errors in the parameters just written.

❑ If the data is found to be valid, the BUSY and DRIVE ACTIVE indicator LED's will go out. The configuration saving function was successful.

❑ If one or more errors are detected, **dE** will appear in the display and the ERROR LED will flash after the BUSY and DRIVE ACTIVE indicator LED's go out. At this point, you may start over and attempt to re-write the configuration parameters to the disk. If the disk is found to contain errors after the second save attempt, the disk should be reformatted or discarded.'

❑ Pressing ENTER, <or>, or the Function key will clear the **dE** error message from the display and cause the ERROR LED to go out.

❑ If the disk you inserted has not been formatted in the Oberheim DPX-1 format, or has been formatted but not written, the display will read **dE**. At this point, you should enter EXTENDED FUNCTIONS and format the disk, then enter **dd** and write the DPX-1 's sample data to the disk. Then, you can save the current configuration parameters.

❏ If the disk you inserted has already been formatted and written, and a set of configuration parameters is on the disk, the display will read **nb** for "Not Blank". (In this particular case, the "Not Blank" message is informing you that there is already a set of configuration parameters saved to the disk, preventing the possibility of the unwanted erasing of a configuration setup you may want to keep.) Press the Function, <or> keys to exit this mode, and eject the disk. On the other hand, if you want to re-write the disk with different configuration data, press ENTER a second time and the disk will be re-written with the new configuration.

3. **Loading Backup Disks**

Backup disks made on the DPX-1 can be used regularly to load sounds instead of the original source. If the user backs up his/her entire collection of sample disks, the backup library can be used with the DPX-1 routinely and the originals stored safely as the "backups". You can also create backup disks of CD ROM loads and sounds transferred via MIDI Sample Dump. Although the data format on a DPX-1 -generated disk is different, its sound quality is identical to the original.

The procedure for loading a backup disk is the same as loading a 3 1/2" floppy as outlined on Page 19 of the DPX-1 Owner's Manual, 1st Edition. During the loading process, the display will show the original data format *(E2, P2, En, Cdor UF)* and the right-hand decimal point will be lit to indicate that a backup disk is being used to load data.

If configuration parameters have been saved on the disk, the left-hand decimal point will be lit as well. At the completion of the load, all parameters will have the values that were stored on the disk, and the display will show the Patch No. stored as part of the configuration data. It is possible to save an invalid Patch No. to the disk, in which case the Patch selected will be the lowest numbered valid preset, just as with an original-source format.

NOTE: For Mirage-type backup disks, the Patch No. is applied based on the assumption of a "boot" configuration: Upper and Lower Banks are Sound 1, Program 1 before the stored Patch No. is selected.

6. **NEW FEATURE**
    MIDI Echo

A new feature has been added to the MIDI CONTROLLER function. When first selected, MIDI CONTROLLER will display **CE** (Controller Enable as described in item #14 below). Pressing the right arrow key displays EC (MIDI Echo). Pressing ENTER permits you to "toggle" (switch back and forth) between ON *(on)* and OFF *(oF)* status with the arrows. After you've selected **on** or **oF** status, press ENTER to confirm and the display will revert back to the EC message.

MIDI Echo combines any MIDI information generated by the DPX-1 internally with MIDI data received by the DPX-1 at its MIDI IN port, and then sends all of this data to MIDI OUT. Thus, MIDI Echo makes the MIDI OUT port act as if it were a MIDI THRU as well.

But there are some precautions you must observe, however, when using MIDI Echo. During a LOAD DISK function, as well as performing Disk Backup or Save Parameters, the DPX-1 disables common MIDI communication because it is "preoccupied" with performing any of these three functions. Therefore, if this particular DPX-1 is the first slave in your system and is echoing data to one or more slaves, the other slaves will not receive any MIDI information until the current function is completed.

You should also avoid making Patch Changes from the DPX-1's front panel when MIDI Echo is on. This is just a precaution to prevent Patch Change information from getting mixed with any other MIDI IN data that will tend to confuse the other slaves in the system.

In addition, MIDI Echo must be disabled whenever a "closed loop" system (the MIDI IN's and OUT's of two devices or instruments are connected) is used, especially while attempting to perform a Sample Dump.

7. NEW FEATURE:
Filter Level and Transpose Adjustments

In previous revisions, selecting FINE TUNE displayed the current Fine Tune value as a 2-digit number representing the overall tuning of the DPX-1. Four new functions have been added to expand the capability of FINE TUNE: when selected in revision 2.2, FINE TUNE will now display *P1* (for "Pitch Adjustment"), *F!* (for "Filter Adjustment"), *tn* (for Transpose Note), *tr* (for Transpose Range), and *ts* (for Transpose Sample). Pressing the <or> key will cycle through these display options.

The DPX-1's oscillator fine tuning is now accomplished in *Pi* -

- Pressing ENTER displays the number range of *00* to 99 as before: a reading of *50* indicates the center of the range and represents the pitch of the original sample. Numbers greater than *50* produce sharp adjustments and numbers less than *50* produce flat adjustments. After the new value is selected, pressing ENTER confirms the selection and returns the DPX-1 to the *P1* display.

Fine-tuning of the filter is accomplished in *Fi* –

- Pressing ENTER displays the number range of *00* 99. A reading of *50* indicates the center of the range and represents the filter level of the original sample. Numbers greater than *50* raise the filter level and add brightness to the sound. Numbers less than *50* lower the filter level and cause the sound to play with less brightness. After the new value is selected, pressing ENTER confirms the selection and returns the DPX-1 to the *F!* display.

MIDI note transposition is accomplished in *fn* –

- Pressing ENTER displays the number range of 00 to 99. A reading of *50* indicates the center of the range and represents no transposition amount. Numbers greater than 50 transpose the MIDI note up, in increments of one semitone. Numbers less than 50 transpose the MIDI note number down, in increments of one semitone. For example, playing note C3 with *tn* = 51, will be interpreted as playing C#3. After the new value is selected, pressing ENTER confirms the selection and returns the DPX-1 to the *tn* display.

Keyboard range (mapping) transposition is accomplished in *tr*

- Pressing ENTER displays the number range of 00 to 99. A reading of *50* indicates the center of the range and represents no transposition amount. Numbers greater than 50 transpose (shift) all keyboard mappings up the keyboard, in increments of one semitone. Numbers less than *50* transpose (shift) all keyboard mappings down the keyboard, in increments of one semitone. For example, if sound A ended on C3, sound B began on C#3, and *tr* = 51, then sound A would now end on C#3 and sound B would begin on D3. After the new value is selected, pressing ENTER confirms the selection and returns the DPX-1 to the **tr** display.

Sample playback transposition is accomplished in *ts* –

- Pressing ENTER displays the number range of 00 to 99. A reading of *50* indicates the center of the range and represents no transposition amount. Numbers greater than 50 transpose sample playback rate up (faster and higher frequency playback). Numbers less than 50 transpose the sample playback rate down (slower and lower frequency playback). For example, playing C3 with *ts*=51 will play the sound mapped on C3 at a pitch of one semitone higher. (Note that this value may be dynamically changed while the sample(s) are playing back. For particularly long samples, this produces an effect

similar to that of adjusting the playback speed on a tape deck.) After the new value is selected, pressing ENTER confirms the selection and returns the DPX-1 to the *ts* display.

A timbre-shift can be accomplished using the *tn* and *ts* parameters simultaneously. Set the *tn* value to transpose +x semitones and the *ls* value to transpose -x semitones (where x=1 . .49) or visa-versa.

An important consideration to note is that making a backup disk of these samples and then performing the *SP* function will store the adjusted filter and transpose settings to the backup disk. When this disk is then re-loaded, the filter levels and/or transpose amounts changed will also be re-loaded and the presets will playback with the desired effect.

Improvements and Changes

1. MIDI SAMPLE DUMP
The implementation of the DPX-1's MIDI Sample Dump Standard function has been expanded to include the sending and receiving of a single Recording in addition to the bulk transfer that it already supports. See Page 26 in the DPX-1 Owner's Manual, 1st Edition for the basic description of this feature.

The following discussion will use the term "Recording" to refer to the data that constitutes a sampled sound. In this respect, a "Recording" is the group of related data that makes up a sound, but not including the enveloping, filtering, keyboard mapping etc. that are used to define its specific playback characteristics. A Recording is simply the sampled data plus the sample rate and loops (if any).

Version 2.2 greatly expands the capability of the DPX-1 's SDS implementation. In previous versions, a single Recording transfer was initiated by the instrument connected to the DPX-1. This meant that for the DPX-1 to receive a Recording, the device connected to the DPX-1 was required to send the data on command, as the DPX-1 would have to wait for data as a "passive receiver". Also, if a single Recording in the DPX-1 was to be sent to an instrument via MIDI, the other device was required to request the Recording, as the DPX-1 was acting as a "passive transmitter" in this case. If the other instrument or computer program did not have either of these two capabilities, single Recording transfers could not occur. Version 2.2 now adds the capability to the DPX-1 to initiate both the send and request commands for bulk and single Recording dumps.

Procedure for Using the SD Function

EXAMPLE #1 — DPX-1 as the Transmitter
For purposes of demonstration, connect the MIDI OUT of a Master controller to the MIDI IN of the DPX-1. Then, connect the MIDI OUT of the DPX-1 to the MIDI IN of the receiving instrument.

1. Press the Function button a few times until DATA DUMP is selected. The display *dd* ("disk dump") will appear as the first display message.

2. Press the > key twice and *Sd* ("Sample dump") will appear in the display.

3. Press ENTER. The number 00 will appear in the display. This indicates that Recording #00 is now selected. Playing on the Master controller connected to the DPX-1 will allow you to play this Recording, polyphonically, in its "raw" form: envelopes, filtering, special keyboard mapping and so forth will be defeated. Playing the sample in its raw form allows you to audition the sound exactly **as it will be** sent via the MIDI Sample Dump Standard. Also, notice that we are referring to this as a Recording number and not a **Preset** number, because all sound modifiers that constitute a Preset are defeated in this mode.

4. Pressing the> key repeatedly will advance through the available Recording numbers. The total number of Recordings will vary from disk to disk. You may play your Master controller at any time to audition any one of the single Recordings polyphonically.

5. When a Recording is played, key "C^3" (actually the fourth C up from the bottom) will play the Recording at its Base Sample Rate — the pitch of the sound generated by the rate of sampling used when the sound was originally sampled. The DPX-1 will then map the sound across as much of the keyboard as feasible, using the Base Sample Rate at C^3 as a reference.

6. It is possible that each Recording was originally sampled at a different rate, so the tuning of each Recording when played back in this manner can be different and may not even relate to a real key signature.

7. After the last Recording number is displayed, the message **AL** (which stands for "All") will appear, indicating that the DPX-1 is in a ready state to dump all of its current samples to MIDI OUT. Playing your Master controller at this point will permit you to audition all of the Recordings as follows:

    a. When the lowest "C" on the keyboard is pressed, the DPX-1 will play Recording #00 at the pitch of its original sample rate.

    b. Pressing the lowest "C#" will play Recording #01, pressing the lowest "D" will play Recording #02, *"Eb"* plays Recording #03 and so forth at the pitches of their original sample rates.

    c. The number of Recordings dumped from the source device will determine the number of keys that can be played. As an example, if five Recordings from the source now exist in the DPX-1, keys C through E will play these Recordings and the remainder of the keyboard will not sound.

8. Pressing ENTER while a Recording number is displayed will instruct the DPX-1 to send that particular Recording to the receiving device.

9. Pressing ENTER while **AL** is displayed will instruct the DPX-1 to send all of the Recordings currently in its memory to the receiving device.

10. When ENTER is pressed, the display will revert back to the **Sd** display and the BUSY LED will flash on and off during the time it takes to dump the selected Recording (or all Recordings).

11. The time required to send a single Recording will vary according its size (total number of data bytes). Typically, this will be anywhere from five to 15 seconds and in some cases longer. The time required to send all Recordings will vary according to the number of Recordings in memory and their size, which can be several minutes.

12. If after a MIDI Sample Dump is started from the DPX-1 and you then decide that you do not want it to finish, pressing ENTER while a Sample Dump is in progress aborts the function.

13. When the dump has been successfully completed, the BUSY LED will go out and the display will remain reading **SP.** If for some reason a problem occurs during the dump, the ERROR LED will flash on and off. Pressing the Function button exits this mode.

EXAMPLE #2 — DPX-1 as the Receiver

There is no special preparation to the DPX-1 required when you intend to send it a single Recording or all Recordings from another device other than the need to connect the MIDI OUT of the device that will initiate the dump to the MIDI IN of the DPX-1. The DPX-1 can be in any mode, and simply executing the dump function from the source instrument will send the data and the DPX-1 will receive it. There are, however, just a few stipulations:

1. The DPX-1 must be "idling". This means that the DPX-1 cannot be executing any of its internal functions (PATCH SELECT, LOAD DISK, the **dd** Disk Dump or **SP** Save Parameters, and so forth) as it will ignore any data dumped to it during that time. This will result in a partial dump that will not be recognized by the DPX-1.

2. We are also assuming that you have the DPX-1 turned on. You must also make certain that the MIDI Channels of both the DPX-1 and the source device are the same.

3. The DPX-1 cannot be receiving any other MIDI data at the time the dump is started from the source device. Be careful — if your instrument set-up incorporates a device that performs MIDI Merging or MIDI Echo, be sure that no other MIDI activity (including Active Sense) is occurring at the time the dump takes place.

4. The total sample data dumped to the DPX-1 cannot exceed the Recording memory capacity of the DPX-1. In terms of total data bytes, the memory capacity of the DPX-1 is one megabyte (1,048,5768-bit bytes). Recording memory is organized as 512 Kilosamples (512,000 12-bit sample bytes).

Attempting to dump more than the total memory capacity of the DPX-1 will have one of two consequences:

▪ In an "open loop" system (MIDI OUT from the source instrument is connected to the MIDI IN of the DPX-1 but the DPX-1's MIDI OUT is not connected back to the source's MIDI IN), the DPX-1 will stop receiving data when its memory capacity is reached. Specifically, the last whole Recording(s) will be ignored. The MIDI Sample Dump Standard has a provision that the receiving device ignore partial Recordings, so the DPX-1 will only save as many complete Recordings as memory permits.

▪ In a "closed loop" system (the MIDI IN's and MIDI OUT's of both instruments are connected), the DPX-1 will receive data until the source instrument completes the dump. This means that after the DPX-1 's memory capacity is reached, it will begin to clear the first received Recording(s) in order to make room in memory for the rest of the data. Therefore, the last whole Recordings will be the ones remaining in memory after the dump is completed.

Procedure

1. After you have made the proper connections and taken the necessary precautions to verify that no other MIDI data or DPX-1 operation is taking place, start the data dump from the source instrument. Consult its Owner's Manual for the correct procedure.

2. When the DPX-1 detects the first byte of the data stream, the display will switch to read **UF** ("Universal Format") indicating it is receiving a MIDI Sample Dump and will remain displaying this message for the entire duration of the dump. At the point when the first data byte is recognized, the DPX-1 will clear the current contents of its memory to make room for the incoming data.

3. When the dump is completed, the UF display will change to a 2-digit number. This number represents the last numbered Recording recognized. This will give you immediate indications of how many Recordings were transferred.

   The LED next to PATCH SELECT in the Function list will also be automatically selected when the dump is complete. You may then use the < > keys and ENTER to select among the Recordings. Playing your Master controller will permit you play the sounds, of course.

4. When dumping a single Recording to the DPX-1, there are a few things to keep in mind. This feature allows for the possibility of transferring single Recording from various sources in order to compile a number of sounds into the DPX-1 at the same time. The first single Recording dumped into the DPX-1 will clear the entire contents of memory to make way for the incoming data. This is done in case this one Recording needs all the available space.

Subsequent transfers will not do this provided that they are transferred in with different Preset Numbers. This means that you can load the DPX-1 with Recordings selectively from different disks or even different samplers, and then back up the resultant memory on a 3 1/2" disk in the Oberheim Format. Combining the MIDI Sample Dump Standard with the DPX-1's backup feature actually gives the ability to write custom disks. But be careful to assign a different Preset Number to each successive single dump, because a sample arriving with a Preset Number already used will again clear memory and you will have to start over.

As with presets selected in PATCH SELECT, the Recordings are numbered within the DPX-1 using an internal numbering scheme, which may not be the same as the scheme used by the machine from which the Recordings originated. For example, sounds 1 through 16 on the Prophet 2000 are renumbered 0 through 15 on the DPX-1. A Recording dumped to the DPX-1 is then selected based upon the DPX-1's internal numbering scheme.

2. DUAL OSCILLATOR
In previous versions, if the status of the *do* Dual Oscillator function *(on* or *oF)* was changed, it was necessary to re-enter PATCH SELECT and press ENTER for the change to become effective. Version 2.2 corrects for this by entering the change when ENTER is pressed while in *do* Mode. Therefore, the last step in the procedure given on Page 31 in the Owner's Manual is skipped.

3. PATCH CHANGE
In previous versions of software, a Patch Change made on the DPX-1's front panel that selected an invalid preset would cause the DPX-1 not to send the selected Patch No. over MIDI. In version 2.2, the DPX-1 will send any selected Patch No. out MIDI even if the selection recalls an invalid preset on the DPX-1. The ERROR LED will still flash indicating that an invalid preset was selected on the DPX-1.

4. BAD SAMPLE
The DPX-1 now incorporates a "Bad Sample" (indicating a problem in a Recording) message, displayed as *bS,* if the DPX-1 detects one or more errors in the actual data during the LOAD DISK routine. This message is intended to be a warning as the unit can still be played. The user must understand, however, that one or more of the selected presets may not sound accurate. The message *dE* now indicates errors in control data only, which means that the disk as a whole cannot be used with the DPX-1.

5. SUSTAIN PEDAL
The DPX-1's Sustain Pedal operation has been improved for more reliable and consistent performance.

❑ Mirage sounds will loop and fade as programmed on the source disk.

❑ A Prophet 2000 sound will go to its "Alternate Release" phase when a sustain pedal is pressed ("Alternate Release" is set on the Prophet 2000 by stepping on the pedal and editing the Release times of both envelopes).

❑ Emulator II sounds will react the same as on the E-II itself:

Press and hold a key or keys, then step on the sustain pedal and release the keys. The sound will die out naturally as ft was programmed on the source disk. This is also the same effect as if the keys were continually held until the sound decayed to silence.

If a key or keys are played and held, the sustain pedal is used then released before the sound decayed completely, the sound will die out according to the sample's programmed release time (just as if the keys are played and then released to allow the sound to die out naturally).

6. **VOLUME PEDAL**
In previous versions, Volume pedal commands transmitted to the DPX-1 via MIDI were sometimes not recognized. This was noticeable with Emulator II disks in particular and has been corrected in Version 2.2.

7. **PATCH SELECT**
In previous versions, it was necessary to re-enter PATCH SELECT and press ENTER after the MIDI CHANNEL was changed. Fixed in Version 2.2.

8. **DPX-1 DISK FORMAT**
A new format identifier has been added to the display when loading a disk. If the display *dP* (the abbreviation for the DPX-1) appears, the disk currently being loaded is in the DPX-1 Library format.

9. **MIDI CONTROLLERS**
In previous versions, all MIDI Controllers (Pitch Bend, Vibrato, Sustain pedal, Volume pedal, etc.) that were being used at the time a MIDI Patch Change command was received by the DPX-1 were reset to be off or to a value of 0, whichever was appropriate. For example, if a Patch Change was sent to the DPX-1 while Volume pedal was being used, the Volume on the DPX-1 would be reset to 0. Thus, if the newly selected preset had MIDI Volume assigned, you would get no sound from the new preset.

This has been fixed in Version 2.2 so that MIDI Controllers that are in use at the time a Patch Change command is received by the DPX-1 will be active and at their current values with the new preset.

10. **MIDI CONTROLLERS**
In previous versions, when MIDI CONTROLLER was selected from the Functions menu, the options were either ON *(on)* or OFF *(oF)* as selected by the arrow keys (refer to page 28 in the Owner's Manual). In Version 2.2, the abbreviation CE (Controller Enable) is displayed instead. Pressing ENTER allows you to "toggle" (switch back and forth) between ON and OFF status with the arrow keys. After you have selected *on* or *oF,* press ENTER to confirm and the display will revert back to *CE.*

The Controller Enable function has also been improved over previous versions. When selected *oF,* the DPX-1 will reset all controllers to 0. This means that if any MIDI Controller (Pitch Bend, Vibrato, Sustain pedal, Volume pedal etc.) was being used at the time oFwas selected, its effect will be zeroed immediately as ENTER is pressed to confirm the selection.

11. **S900**
The implementation of Akai S-900 disks has been improved over the previous 2.1 Version.
- ❑ Velocity-to-loudness scaling improved
- ❑ One-shot implemented
- ❑ Velocity-to-filter implemented
- ❑ Reverse playback implemented
- ❑ Sample loudness parameter implemented
- ❑ Release velocity-to-release time implemented for positive settings
- ❑ Pitch bend range implemented (version 2.1 used a fixed 7-semitone range)

12. **VOLUME CONTROLLER**
The volume controller (ctlr #7) is initialised to full-on during power-up reset.

13. SAMPLE DUMP

Universal Sample Dump patches now have default pitch bend *(+1- 2 semitones)*, vibrato on ctlr #1, volume on ctlr#7, and sustain on ctlr#64.

14. UF FOMAT

Loading a UF format disk without patch (sample) 0 will now load and not give a *de.*

15. SAMPLE DUMP

Universal Sample Dump patches now respond only to the basic channel.

16. DISK LOAD

Upon loading a disk, the following front panel parameters are reset to their nominal value of 50, unless they have been saved on the loaded disk: Filter brightness (**FI**), transpose note *(tn),* transpose range (**tr**), and transpose sample *(ls).* For disk backups made prior to version 2.1, these values will default to their nominal value of 50. Resetting these values to 50 if they have not been explicitly saved insures consistency between disk loads and prevents residual effects of previously loaded disks.

17. MIDI MODE

MIDI mode messages are now channelized.

18. MIDI ECHO

The MIDI echo parameter may now be saved to disk, using the SP function.

Corrections to the 1st Edition Owner's Manual

1. Page 37, ¶ 3 states "The sampling devices currently supported by the DPX-1 incorporate a disk-load provision that requires all incoming data off a disk to be valid. Should any data byte be unreadable, they will reject this entire disk, even though the majority of the data is ok." This is not entirely true for the Prophet 2000/2002 and 2002+ which will continue the load attempt of the remaining data if EXECUTE is pressed again.

2. Page 37, ¶ 5 states "Be sure that the Emulator II disk that you are using is a Performance Disk and not a Library Disk. The DPX-1 is not able to use Emulator II Library Disks because they do not contain all of the data required to playback sounds. Attempting to load an Emulator II Library Disk will result in a dE (Disk Error) message on the display." This is also true for Prophet 2000/2002 and 2002+ disks that contain samples without any preset information. Using MIDI Mode 4 (MIDI Mono), however, will allow you to listen to the samples by accessing each on a different MIDI Channel.

3. Page 38, ¶ 2 implies that the Prophet 2000-series devices have an on-board sequencer. They do not.

Display Abbreviation Descriptions

The following chart lists the available DPX-1 display abbreviations and their corresponding definitions. This chart can be used as a reference guide in the event the Owner's Manual is not readily available.

DPX-1 FUNCTIONS AND ERROR MESSAGES:

Ld   **Loading Disk.** When the DPX-1 is powered on, or after LOAD DISK is pressed, this message is displayed momentarily before the disk's format is determined.

nd   **No Disk.** When attempting a disk operation, no disk has been detected in either of the floppy disk drives.

on   EXTENDED FUNCTIONS: **On.** Selected parameter is enabled.

        MIDI CHANNEL: **Omni Mode.** The DPX-1 is in OMNI Mode and will receive MIDI information on all channels.

oF   EXTENDED FUNCTIONS: **Off.** Selected parameter is disabled.

bd   **Blank Disk.** The disk attempted to be written or formatted is already blank and in the Oberheim Format.

nb   **Not Blank**   **- dd**   Disk Dump:The backup disk attempted to be dumped to is in the Oberheim Format, but contains some form of data.

                     - Fd   Format Disk: The backup disk attempted to be dumped to is either a DPX-1 backup already or in another recognizable format.

nF   **No Format.** The backup disk attempted to be dumped to is not in the Oberheim Format.

Pd   **Protected Disk.** The backup disk attempted to be formatted or written has its Write-Protect mechanism enabled.

bS   **Bad Sample.** The DPX-1 has detected one or more errors in the disk's sample data. The DPX-1 may still be played, but one or more presets may not sound as they were intended.

dE   **Disk Error.** The DPX-1 detected one or more critical errors in the control data and is unable to complete the load, attempted to load a blank disk or a disk not supported by the DPX-1.

SE   **MIDI Sample Error.** The DPX-1 has detected one or more errors in the sample data being sent to it via MIDI.

IE   **Internal Error**. The DPX-1 encountered one or more errors while converting the disk.

FINE TUNE:

PI   When displayed, pressing ENTER permits the adjusting of the DPX-1's oscillator pitch.

FI   When displayed, pressing ENTER permits the adjusting of the DPX-1's filter level.

In   When displayed, pressing ENTER permits the adjusting of the DPX-1's note transpose.

Ir   When displayed, pressing ENTER permits the adjusting of the DPX-1's range transpose.

Is   When displayed, pressing ENTER permits the adjusting of the DPX-1 's sample transpose.

EXTENDED FUNCTIONS:

Fd   Format Disk. Formats a 3.5" double-sided, double-density floppy diskette into the Oberheim Format in order to make a backup disk.

FI   Filter Limit. Enables or disables Filter tracking.

do   Dual Oscillator. Enables or disables the Dual Oscillator function (Mirage presets only).

2.2   Version Number.

NUMERIC DISPLAYS:

00 - 99   PATCH SELECT: Displays the current preset number; or
       FINE TUNE: Displays the current Fine Tune value of either the P1 ("Pitch Adjustment") or
       FI ("Filter Adjustment"). A display reading of 50 is the center of the FINE TUNE range and
       represents the originally recorded sample frequency.
       SAMPLE DUMP: Displays the currently selected Sample number to be dumped via MIDI
       OUT. Pressing ENTER executes this function.

1 - 16   MIDI CHANNEL: Displays the currently selected MIDI transmit or receive Channel.

DATA DUMP FUNCTIONS:

dd **Disk Dump.** When displayed, pressing ENTER causes the DPX-1 to write its memory to a 3.5"
   Oberheim-formatted disk.
SP **Save Parameters.** When displayed, pressing ENTER causes the DPX-1 to write its current
   configuration parameters to a backup disk containing sample data.
Sd **Sample** Dump. When displayed, pressing ENTER puts the DPX-1 in a sub-mode where a single
   sample or all samples in memory can be selected and dumped via MIDI Sample Dump Standard.
A L When displayed in the Sample Dump sub-mode, pressing ENTER causes the DPX-1 to transmit
   the entire contents of its memory out MIDI in the MID! Sample Dump Standard format.

LOAD DISK FUNCTION:

1. Data Formats — the data currently being loaded originated from:
    A9 an Akai S900.
    E 2 an E-mu Emulator II.
    P 2 a Sequential Prophet 2000 or 2002/2002+.
    En an Ensoniq Mirage.
    Cd a CD ROM disk drive (the O.M.I. "CDS3").
    UF a MIDI sample dump.

2. Backup Disks - the data from the disk currently being loaded is from a DPX-1 backup disk containing:
    A9 Akai S900-type samples/presets.
    E2 Emulator II-type samples/presets.
    P2 Prophet 2000/2002-type samples/presets.
    En Mirage-type samples/presets.
    Cd samples/presets that originated from a CD ROM.
    UF . . . . samples that originated from a MIDI sample dump.
    In DPX-1 internal test presets.

3. The data from the disk currently being loaded is from a DPX-1 backup disk containing sample data
  plus the *SP* configuration parameters for:
    A.9 Akai S900-type samples/presets.
    E. 2 Emulator II-type samples/presets.
    P.2 Prophet 2000/2002-type samples/presets.
    E. n Mirage-type samples/presets.
    C. d samples/presets that originated from a CD ROM.
    U. F samples that originated from a MIDI sample dump.
    I.n DPX-1 internal test presets.

MISCELLANEOUS:

BUSY   When its LED is flashing, the currently selected function is being executed.
ERROR   When its LED is flashing, the Function just performed was not successful.