Digital Recording Studio

D32XD Xtended Definition

D16XD Xtended Definition

System Version 2.0

Upgrade Guide

KORG

About this document

This document explains the new functions and improvements that have been added since System Version 1.0 or 1.1 of the D32XD/D16XD.
The **1.1** symbol indicates functions and improvements that were added in the change from version 1.0 to 1.1. The **2.0** symbol indicates functions and improvements that were added in the change from version 1.1 to 2.0.
The explanations here follow the order of the material in the "D32XD/D16XD Owner's Manual," so you'll want to refer to the manual as you read this document.

Conventions in this document

Printing conventions used in this document are the same as described in "Printing conventions in this manual" on p.iv of the "D32XD/D16XD Owner's Manual."
One additional convention is as follows.
(→Manual: p.■■): Refers to a page in the "D32XD/D16XD Owner's Manual"

Updating the system

For the procedure of how to update the system, refer to the owner's manual section on "Updating the system" (→Manual: p.95).

CAUTION FOR LASER

This product utilizes a laser.
Use of control, adjustment or performance of procedures other than those specified herein may result in hazardous radiation exposure.
Do not open covers and do not repair yourself. Refer servicing to qualified personnel.

Laser diode properties
Material   Semiconductor laser GaAIAs
Laser output   Less than HHS and IEC 825-1 Class 1 Limit
Wave length   784 nm
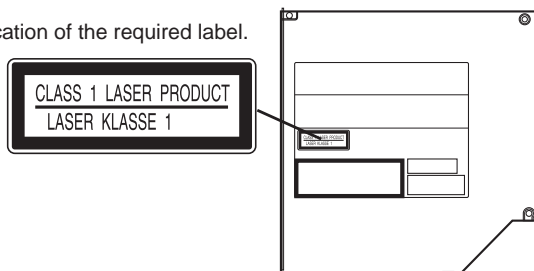

Location of the required label.

CLASS 1 LASER PRODUCT
LASER KLASSE 1

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Added functionality

Control knobs 2.0

The control knobs can now be used to edit various parameters in the following pages.

Sub Mixer1–8;
Sub Mixer9–16 (AIB-8 required);
Sub Mixer1724 (DIB-8 required);
Analog Compresser1–8;
Analog Compresser9–16 (ACB-8 required);
plus EQ/ATT, Master EQ, Effect 1/2 Send, Aux 1/2/3/4 Send, FaderPan, Cue Level, Ch View

The D16XD does not have an Aux 3/4 Send page.
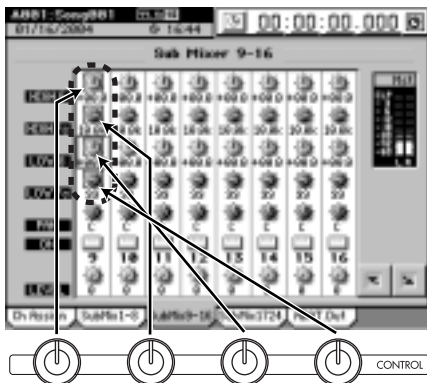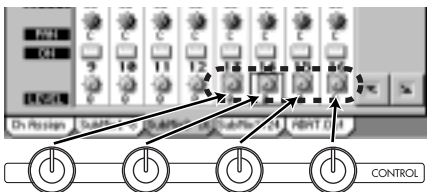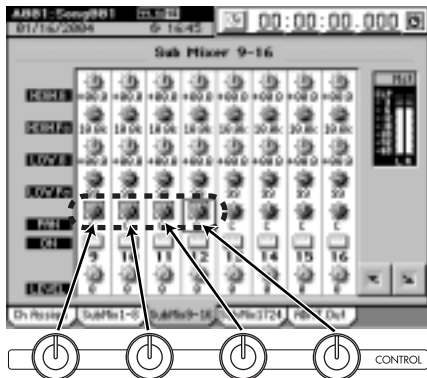
The knob icons in the screen are grouped together in blocks of four. You can use the control knobs to edit the block of knobs that is currently emboldened in the screen.
To edit a knob that is outside the currently emboldened group, press the corresponding knob icon; the block that includes that knob will be emboldened, and you can use the control knobs to edit the knobs located in that block. You can also use the cursor arrows to move from block to block. In the **EQ/ATT**, **Master EQ**, **Effect 1/2 Send**, and **Aux 1/2/3/4** Send pages, you can also use the **EQ** knobs and **SEND** knobs as before.

note *When you turn a control knob, actual control will begin when the knob position matches the stored value of that parameter. However, you can cause the change in value to occur immediately by holding down the corresponding page mode key (CH VIEW, MIXER, EFFECT) as you turn the control knob.*

More simultaneous record tracks in the 24-bit mode 2.0

The number of tracks that can be recorded simultaneously in a 24-bit song at 48 kHz/44.1 kHz sampling frequencies has increased to 12 tracks (from 8 tracks in previous versions). The number of tracks that can be recorded simultaneously in a 24-bit song at a 96 kHz sampling frequency has increased to 6 tracks (from 4 tracks in previous versions).(→Manual: p.36, 64, 136, 182).

Maximum number of simultaneously usable tracks for each Song Type

Song Type	Recording	Playback	Punch recording
44.1kHz/16-bit	16	32[*16]	8
48kHz/16-bit			
44.1kHz/24-bit	12	16	4
48kHz/24-bit			
96kHz/24-bit	6	8	2

*If you simultaneously record nine or more tracks in a 48 kHz/44.1 kHz 24-bit song, or five or more tracks in a 96 kHz 24-bit song, the **TEMPO "SetUp"** tab page **"Rhythm"** setting will be automatically turned off, and you will be unable to use the rhythm function.*

Data compatibility with other Korg Digital Recording Studios 2.0

The D32XD and D16XD are now able to restore song data created using the D12, D16, D1200, D1600, D1200mkII, and D1600mkII that was backed up to CD.
Song data backed up to a PC using the D1200, D1200mkII, or D1600mkII can also be restored.

note *The song data that can be restored is the audio data, song name, song protect, LOC1–4, and MARK1–99 data. When restoring song data that was backed up on a PC drive, the song protect setting is cancelled.*

Caution when restoring D32XD backup data into the D16XD

If a 16-bit D32XD song contains automation events recorded in channels 17–32, backing up this song and then restoring it into a D16XD will automatically erase all automation data of channels 17–32. Since the amount of deletion processing that has to be performed will depend on the amount of data, the restore operation will take longer.

If you intend to back up D32XD song data for use on the D16XD, you should first delete automation events for channels 17 and above before you back up the data.

Pair 2.0

Paired channels can now be controlled not only from the odd-numbered channel but also from the even-numbered channel. When adjacent odd-numbered/even-numbered channels (1–2, 3–4, 5–6 ... 31–32 [*15–16]) are paired, editing a value of either channel will set both channels to the same value.
When pairing is enabled, the following parameters are linked.

- **CH ON** key
- **REC/PLAY** key
- **EQ/ATT**
- **REC/EFF/AUX SEND**
- **PAN** knob
- Channel fader
- Group settings

note *When controlling paired faders on the D32XD using the even numbered fader, the odd numbered fader will seem to "lag" a bit. This lag is in the fader motor encoding, and does not affect the actual audio data.*

Warning dialog box added to Format and Partition ②.⓪

When you execute the Format or Partition operations, a warning dialog box will now appear if the drive contains any protected songs. (→Manual: p.88, 89, 127, 128)


If you want to override the song protect setting, press the **Force** button (highlighted) in the dialog box and then press the **Yes** button.

Change in PC drive size ②.⓪

You can now choose 2 GB, 4 GB, or 8 GB as the size for the PC (USB) drive. (→Manual: p.88, 127)

✎ *If connected to a Windows 98 computer, only 2 GB can be detected for a PC (USB) drive. The drive will not be detected if it is 4 GB or 8 GB in size.*

✎ *When you execute a change in the PC (USB) drive size, the data of the PC (USB) drive and all song drives will be lost, but the "User Data" (→Manual: p.82, 129) and SYSTEM "Control" tab page data will be preserved.*

(1) Access the SYSTEM "DiskUtility" tab page, and press the Partition button to display the Partition dialog box.

(2) Press the PC Drive list button and choose the desired size for the PC (USB) drive.
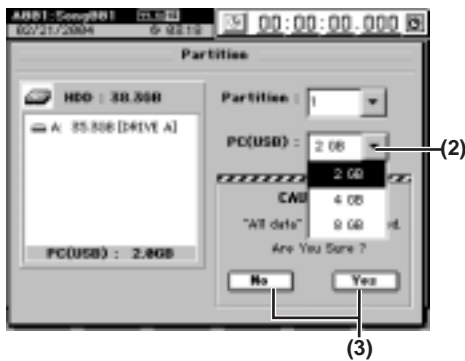
(3) Execute the change in the PC (USB) drive size.
When you press the **"Yes"** button a message of *"Are You Sure?"* will appear; press the **Yes** button once again to execute.

✎ *If the song drive contains any protected songs, a warning dialog box will appear. In the dialog box, press the Force button and then press the Yes button to execute.*

✎ *When you change the size of the drive, all data on the PC (USB) drive and all other song drives will be erased.*

When the operation has been completed, the display will indicate **"Completed"**; press the **OK** button to return to the **"DiskUtility"** tab page.
You can also specify the number of partitions at the same time that you select the PC (USB) drive size.

✎ *If you select 2 GB as the size of the PC (USB) drive, it will be managed as a FAT16 drive. If you select 4 GB or 8 GB, the drive will be managed as a FAT32 drive.*

Changes and additions to Edit Track ②.⓪

The **Mode** button has been removed from the track edit type OptimizeTrk; allowing *EraseSilence*, *ErasePunchNoise*, and *Optimize (normal)* to be offered as individual track edit types. (→Manual: p.73, 142)
In addition, a new **NoiseReduction** operation has been added, which can learn the signature of a noise signal and automatically remove the noise from a musical passage.


Optimizing a track (OptimizeTrk)
This operation now functions only to optimize the track data. Step (3) of "Optimizing track data" (→Manual: p.73) is now unnecessary. Also, the Reference section **OptimizeTrk A3.Mode** (→Manual: p.142) is now unnecessary; the section **"Normal"** is now the overall explanation for this **OptimizeTrk** command.

Eliminating noise (NoiseReduction)
On the desired track, specify a region (IN-OUT) containing only noise which the D32XD/D16XD will use to analyze and "learn" the noise component. This noise component will then be eliminated from the data in the other region you specify (TO-END) of the same track.
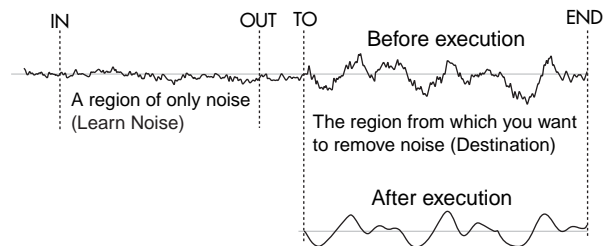
ⓘⓔ **Eliminate noise from the TO-END region of track 1**

(1) Specify the region containing the noise that you want the D32XD/D16XD to analyze, and the region from which this noise will be removed.
You will need to set the following locations (→Manual: p.69).

• IN location: the beginning of the Learn (noise analysis) region

• OUT location: the end of the Learn (noise analysis) region

• TO: the beginning of the Destination (noise removal) region

• END: the end of the Destination (noise removal) region

✎ *You must set IN-OUT to a region that contains only noise.*

✎ *There is a lower limit on the size of the regions you specify. The IN-OUT region must be at least one second long, and the TO-END region must be at least 0.5 seconds long.*

(2) Select "NoiseReduction."
In the **TRACK**, **"EditTrk"** tab page, press the **Edit Trk Type** cell. In the **Edit Trk Type** dialog box, select **"NoiseReduction"** and press the **OK** button.
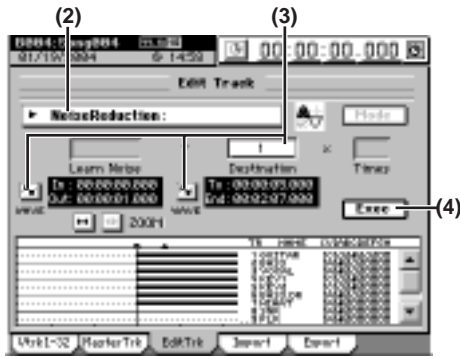
(3) Select the number of the track from which you want to remove noise.

- For this example, set the **Destination** cell to track **"1"**.

- Check the IN and OUT locations. If you want to set the locations with more precision, press the **Learn Noise Wave** button, and use the **Wave** dialog box (→Manual: p.139) to set the location.

- Check the TO and END locations. If you want to set the locations with more precision, press the **Destination Wave** button, and use the **Wave** dialog box (→Manual: p.139) to set the location.

(4) Execute the editing operation.

Press the **Exec.** button. In the **NoiseReduction** dialog box that appears, press the **Yes** button to execute the operation.

When the operation is finished, the display will indicate **"Completed."** Press the **OK** button.

(5) Verify the results of the operation.

Press the **LOC3/TO** key, and play back from the TO point. If necessary, you can use Undo to return to the state prior to applying the **NoiseReduction** (→Manual: p.147).

note *This editing operation will take longer to complete depending on the length of the TO-END region you that you specified.*

The Destination can be set to the following choices.

| **D32XD** | **[1...32, ML, MR]** |
| **D16XD** | **[1...16, ML, MR]** |

ML and **MR** are master track L and R

✎ *For a 96 kHz/24-bit song, you can choose only up to tracks 1-8.*

✎ *For D32XD 48 kHz/24-bit or 44.1 kHz/24-bit songs, only tracks 1-16 can be selected.*

Erasing punch noise (ErasePunchNoise)

i.e. **Erasing noise from the IN-OUT region of track 1**

(1) Specify the region where you want to erase punch noise.
Set the locations as follows (→Manual: p.69).

- Set the IN location to a point slightly earlier than where the noise occurs.

- Set the OUT location to a point after the noise.

(2) Select "ErasePunchNoise."
In the **TRACK**, **"EditTrk"** tab page, press the **Edit Trk Type** cell. In the **Edit Trk Type** dialog box, select **"ErasePunchNoise"** and press the **OK** button.
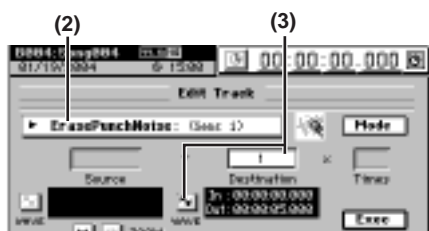
(3) Select the number of the track from which you want to erase noise.

- For this example, set the **Destination** cell to track **"1"**.

- Check the IN and OUT locations. If you want to set the locations with more precision, press the **Destination Wave** button, and use the **Wave** dialog box (→Manual: p.139) to set the location.

For the rest of the procedure, refer to step (5) and following of "Erasing noise" (→Manual: p.74). For an overall explanation of **ErasePunchNoise**, refer to the Reference section **Optimize Trk A3.Mode "Erase Punch Noise"** (→Manual: p.143).

✎ *If this does not erase the noise, use Undo to return to the previous state, press the Mode button, and raise the "ErasePunchNoise Sens" value slightly (→Manual: p.143).*

Erase a silent region (EraseSilence)

i.e. **Erasing regions of silent audio data from the IN-OUT region of track 1, converting them to usable space on the hard drive**

(1) Specify the region of silence you want to erase.
Set the locations as follows (→Manual: p.69).

- Set the IN location to a point slightly earlier than the region of silence that you want to erase.

- Set the OUT location to the point after the region of silence.

(2) Select "EraseSilence."
In the **TRACK**, **"EditTrk"** tab page, press the **Edit Trk Type** cell. In the **Edit Trk Type** dialog box, select **"EraseSilence"** and press the **OK** button.

(3) Select the number of the track from which you want to erase silence.

- For this example, set the **Destination** cell to track **"1"**.

- Check the IN and OUT locations. If you want to set the locations with more precision, press the **Destination Wave** button, and use the **Wave** dialog box (→Manual: p.139) to set the location.
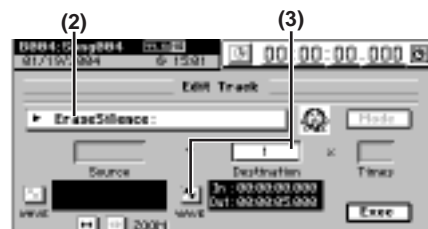
For the rest of the procedure, refer to step (5) and following of "Erasing region of silent audio data" (→Manual: p.74). For an overall explanation of **ErasePunchNoise**, refer to the Reference section **Optimize Trk A3.Mode "Erase Silence"** (→Manual: p.142).

New MIXER Navigation Tools ②.⓪

Assigning Tab Pages to the Locate keys

Tab pages within the **MIXER** page can be registered to the **LOC1/IN–LOC6** keys for quick access.

(1) In the MIXER page, access the tab page that you want to register.

(2) Hold down the MIXER key and press the STORE key; the Stored Page dialog box will appear.

If you decide not to register this page, press the **Exit** button or press the **STORE** key once again.

(3) Press the LOC1/IN, LOC2/OUT, LOC3/TO, LOC4/END, LOC5, or LOC6 key to register the current tab page to that key. Registration is complete as soon as you press the key, and the dialog box will close.

> **note** *With the factory settings, the following pages are registered.*
> *LOC1   INPUT/OUTPUT/CH ASSIGN, "Ch Assign" tab page*
> *LOC2   FADER/PAN/AUTOMATION, "Automation" tab page*
> *LOC3   PAIR/GROUP, "Ch Pair" tab page*
> *LOC4   ANALOG COMP, "Comp1–8" tab page*
> *LOC5   EQ/ATT/PHASE, "MasterEQ" tab page*
> *LOC6   SOLO/MONITOR, "CueLevel" tab page*

Once the tab page has been assigned, then simply holding down the **MIXER** key and pressing one of the **LOC1/IN–LOC6** keys will move you directly to that registered tab page within the **MIXER**.

Moving between tab pages

You can move between tab pages within **MIXER** page mode by holding down the **MIXER** key and using the Cursor keys (◄, ►). You can move between **MIXER** page modes by holding down the **MIXER** key and using the Cursor keys (▲, ▼) (→Manual: p.99).

Equalizer knobs ②.⓪

When the **"Master EQ"** tab page is displayed, you can now use the equalizer knobs to edit the **GAIN**, **FREQ**, and **Q** values (→Manual: p.10, 49, 111).

> ✎ *The equalizer band keys (High...Low) cannot be used in the "Master EQ" tab page. You will need to select the equalizer band in the screen.*

> ✎ *Please refer to Page 3 of this document for more information on the operation of the control knobs when using the Master EQ.*

Added message 1 ②.⓪   (→Manual: p.170)

In ‾ Out Samples under 4096.
To ‾ End Samples under 2048.

☐ The region specified for the track editing operation is too small.

Added message 2 ①.①   (→Manual: p.170)

Trigger recording is not available for the master track.

☐ You can't perform trigger recording if the **MASTER TRACK STATUS** key is set to **REC**.

Added Mixer SetUp ①.①

Mixer Setup lets you store the current mixer settings for subsequent recall at a later time.

This allows you to store mixer settings that you use frequently, and then recall them when creating a new song. You can also use this method to copy mixer settings to a different song.

The current mixer settings are stored as a "mixer setup program." You can store twenty of these mixer setup programs. A mixer setup program contains all the mixer parameters that are included in the song. It also contains the current analog compressor settings.

The mixer setup programs that you store can be backed-up and restored as **"UserData"→"Mixer SetUp Data"** (→Manual: p.82)

A mixer setup contains the following parameters.

- **Channel Assign**, **Source Select** (CD or S/P DIF), **Sub Mixer**, and **AdatOut** assignments

- **Pair**, **Group** (D32XD only)

- **Fader**, **Pan**, **Play/Rec EQ**

- **ATT**, **CH ON**, **Phase**, **AUX/EFF Send**, **Rec Send**

- Effect (all settings including the parameters being edited)

- Master Fader, **Master EQ**, **Send Out level**, **Send Select All**

- **Solo**, **Monitor**, **Cue**, rhythm output assignment, rhythm volume

- **Analog Compressor**

Additional parameters included in Mixer Setup ②.⓪

- **REC/PLAY**, **MASTER TRACK STATUS**, **Group** (D16XD only)

Accessing the Mixer Setup screen

Press the top panel **MIXER** key to display the Page Jump Menu screen (→Manual: p.99).
Press the **MIXER SET UP** button to open the Mixer Setup screen.

Storing a mixer setup

Here's how to store the current mixer settings as a mixer setup program.

> ✎ *You can't store a mixer setup while a song is playing.*

(1) Make the current mixer settings are the ones that you want to store.

(2) Access the MIXER, "MIXER SET UP," "MixerSetUp" tab page.

(3) In the list, press to highlight the program in where you want to store the current settings (i.e., the program you want to overwrite).
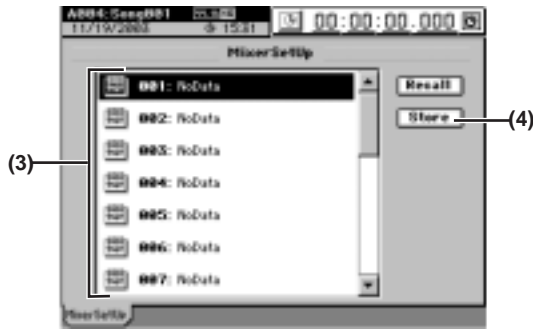
(4) Press the Store button to open the Store Program dialog box.

If you decide that you want to store the settings in a program number other than the one shown in the cell, you can press to highlight it and use the **value dial** (or the +/ – keys) to change the program number.
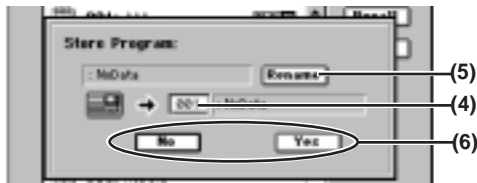
(5) If you want to assign or edit the program name, press the Rename button to open the Rename dialog box.

(6) Execute the save.

Press the **Yes** button to save the settings.
If you decide to cancel, press the **No** button.

Recalling a mixer setup

Here's how to recall a previously-stored mixer setup program.

✐ *You can't recall a setup while a song is playing.*

(1) Access the MIXER, "MIXER SET UP," "MixerSetUp" tab page.

(2) In the list, press to highlight the program that you want to recall.

(3) Press the Recall button to open the Recall Program dialog box.

(4) Execute the recall.

Press the **Yes** button to recall the settings.
If you decide to cancel, press the **No** button.

✐ *A program saved in a 44.1 kHz or 48 kHz song can be recalled into either a 44.1 kHz or 48 kHz song, but not a program saved in a 96 kHz song.*
A program saved from a 96 kHz song must be recalled into a 96 kHz song.

📝 *When the D32XD/D16XD is shipped from the factory, mixer setup programs 1 through 20 are stored as "NoData." Recalling one of these programs will set the mixer to the same settings as when it is initialized (i.e., when you create a New Song).*

Top panel keys 🔟

The **MIXER**, **CD**, **UNDO** and **SCRUB** keys will now toggle back and forth between the main page jump menu for that key, and the most recently accessed tab page under that key.

MIXER key   (→Manual: p.10, 99)

Pressing the **MIXER** key displays the page jump menu screen. Pressing the **MIXER** key again displays the most recently selected page within the page jump menu. Pressing the **MIXER** key yet again returns to the page jump menu screen.

In this way you can alternate between the page screen and the page jump menu screen by pressing the **MIXER** key.

CD key   (→Manual: p.10, 122)

Pressing the **CD** key displays the page jump menu screen. Pressing the **CD** key again displays the most recently selected page within the page jump menu. Pressing the **CD** key yet again returns to the page jump menu screen.

In this way you can alternate between the page screen and the page jump menu screen by pressing the **CD** key.

UNDO key   (→Manual: p.10)

Pressing the **UNDO** key displays the **"Undo/Redo"** tab page. Pressing the **UNDO** key again returns to the page in which you were prior to pressing the key.

SCRUB key   (→Manual: p.11, 40, 148)

Pressing the **SCRUB** key displays the **"Scrub"** page. Pressing the **SCRUB** key again returns to the page in which you were prior to pressing the key.

SCRUB 🔟   (→Manual: p.40, 148)

While the **"Scrub"** page is displayed, you can use the **LOC1–LOC6** keys, **MARK JUMP** ◄►, or the counter to change the location just as when you're in other pages (→Manual: p.38). You can also change the location by using the **STOP** key and **MARK JUMP** ◄► keys in combination (→Manual: p.151).

If you want to return to scrubbing after you've used the counter to change the location, press a button outside the waveform window or counter, or press the cursor ▼ key.

The following enhancements apply only to the D16XD.

Changes in PAIR page mode 2.0

The D16XD's **PAIR** page mode has been changed to the same **PAIR/GROUP** page mode as on the D32XD (→Manual: p.99). This change adds **Fader Group** and **Channel On Group** pages (→Manual: p.103).
Please also refer to the Operation section (→Manual: p.50).

3b. PAIR/GROUP

3b-1.Channel Pair

Here adjacent mixer channels can be paired together.

For paired channels, the following parameters will operate in tandem and will produce the same values for each channel(→Manual: p.102).

Fader, Pan, CH ON, PlayEQ, RecEQ, RecSend, Eff1/2Send, Aux1/2Send, ATT, REC/PLAY, Group

3b-2.Fader Group

When you operate the fader of any channel that is assigned to a group, the fader levels of the other channels assigned to that group will also change, preserving the balance of the linked channels.

There are four groups, A through D. Each channel can be assigned to only one of these Fader groups.

✎ *If you want fader operations to affect the value, set the SYSTEM "Control" tab page **Fader/Knob Control** setting to "Match."(→Manual: p.127)*

1. **Group buttons** [A, B, C, D]
    These buttons select the fader group for each channel. To assign the channel to a group, press the corresponding button (it will be highlighted).

2. **Group on buttons** [A, B, C, D]
    To activate a particular fader group, press the corresponding button (highlighted). If these buttons are pressed, the fader levels will change to preserve the balance of the group when you operate any fader in that group.

    note *When you turn on a 1. "Group button" to add a channel to an existing group, the level of the channel at that moment will be set as that fader's balance in the group.*

3b-3. Channel On Group

When you operate the **CH ON** key of a channel that has been assigned to a Channel On group, other channels assigned to that group will also be affected. There are four Channel On groups; E through H. Each channel can belong to only one of these Channel On groups.

1. **Group buttons** [E, F, G, H]
    These buttons select the CH ON group for each channel. To assign a channel to a CH ON group, press the corresponding button (it will be highlighted).

2. **Group on buttons** [E, F, G, H]
    To enable CH ON grouping, press the corresponding button (highlighted). If these buttons are pressed operating the channel on status of any channel assigned to a group will affect all the channels in that group.

    note *When you turn on a 1. "Group button" to add a channel to an existing group, the on/off status of the channel at that moment will determine the on/off status for the group.*

Event Automation 2.0

Both the D32XD and D16XD support Scene Automation. Previously, only the D32XD supported dynamic Event Automation.

The D16XD's **FADER/PAN/AUTOMATION** page mode has been changed to include the same dynamic Event Automation found on the D32XD (→Manual: p.103). The D16XD is not equipped with motorized faders, so in order to see the dynamic automation taking place, use the **Mixer View** (→Manual: p.107) or **Meter Trk View** (→Manual: p.97)

This change adds **Automation** and **Event List** pages (→Manual: p.104).

Please also refer to the Operation section (→Manual: p.54).

3c. FADER/PAN/AUTOMATION

3c-1. Fader Pan

Refer to 3c-1. Fader Pan (→Manual: p.107).

3c-2. Automation

You can turn automation on and record the realtime changes you make to the mixer settings while the song is playing back or recording.

The recorded automation can then automatically change the mixer settings during playback or recording.

1. Record channel buttons [○, ▷]

Use these buttons to select the channels that you want to record automation events. Events will be recorded for each channel whose button you press to make it indicate ○ (Rec) .

2. Record parameter buttons
[Fader, Pan, CH ON, Send, Expression]

Use these buttons to select the parameter that you wish to automate. You can select only one parameter at a time; press a radio button to highlight the desired parameter.

✎ *If you select Send, automation will be recorded for sends whose Send key (INTERNAL 1/2, AUX 1/2) is lit when recording begins. However, "6. Snap Shot" will record all Send parameters.*

✎ *If you select Expression, press the ▷ button located at the side to select ○ (Rec) before you start recording.*

3. Master Fader [○, ▷]

If you selected "Fader" as the record parameter, and you want to record the operations of the MASTER fader as well, press the ▷ button so it indicate "○".

4. Automation

This button turns the playback and recording of automation events on and off.

OFF: Automation playback/recording will not occur.

On (Play): Turn on the automation playback. The **Automation** indicator will light.

During song playback or recording, when the song reaches the location at which an event is recorded, that setting will be recalled, automatically changing the settings of the mixer. The fader level will automatically move when this occurs. New automation events will not be recorded.

ON (Rec): Turns on the automation playback and event recording. The **Automation** indicator will light.

During song playback or recording, when the song reaches the location at which an event is recorded, that setting will be recalled, automatically changing the settings of the mixer. The fader level will automatically move when this occurs. In addition, new events will be recorded for channels whose record channel button is set to (Rec), according to the settings of the **Event Rec Mode** dialog box. When the recorder stops, this setting will automatically change to **ON (Play)**.

note *If automation is on and you have not stored any scene, the* ***Default Scene*** *will automatically be selected. If you want to edit scene-related parameters, be sure to store the scene.*

5. Mode

When you press this button, the **Event Rec Mode** dialog box will appear, allowing you to select the automation recording method. Press the **OK** button to apply your selection, or press the **Cancel** button to cancel it.
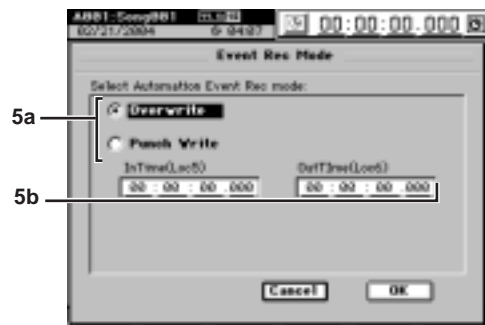
5a. Recording mode

Overwrite: Automation data will be overwritten from the point you begin playing/recording the song until the point where you stop. If you do not record events, all the previously-recorded events will be erased.

Punch Write: Parameters you adjust between the In Time (the location where you begin recording events) and Out Time (the location where you stop) will be recorded. Previously-recorded events will remain unchanged in the areas where you do not record parameter operations.

5b. In Time, Out Time

If the recording mode is **"Punch Write"** and you selected a parameter other than Fader as the parameter to be recorded, these settings specify the locations at which event recording will begin and end.

Use the **LOC5** key to register the **In Time** (the location at which event recording will begin), and the **LOC6** key to register the **Out Time** (the location at which event recording will end) (→Manual: p.38).

6. SnapShot

Pressing this button when "4. Automation" is on and the recorder is stopped will record a "snapshot" of events for channels whose record channel button is set to ○ (Rec).

7. Undo

Press this if you want to revert the recorded automation to the state prior to the previous operation. If the button indicates **Redo**, you can use it to cancel the **Undo**.

> **note** *You can use "3c-3. Event List" to make detailed changes to the recorded events.*

> ✎ *This data is held in common with the "8. Undo" data of "3c-3. Event List." If you press the Event List's Undo button immediately after recording automation, that automation data will be erased, and not the most recent event edit.*

8. Free event memory amount

This indicates the amount of remaining memory in which you can record events.
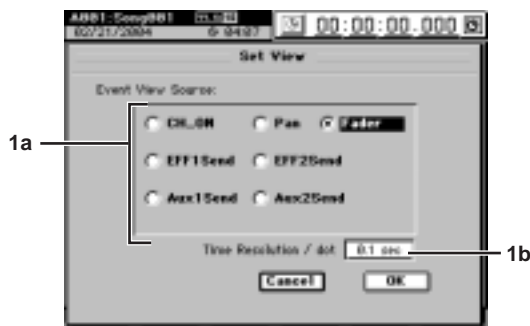

3c-3. Event List

Here you can view and edit the events and scenes that you recorded using automation.
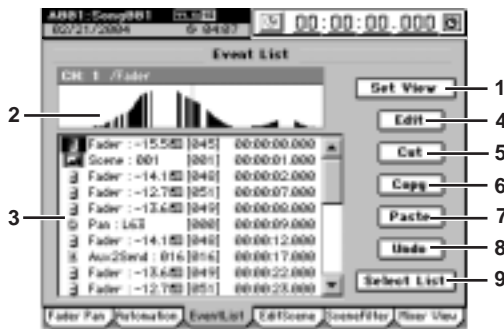
1. Set View

Press this button to open the **Set View** dialog box. Press the **OK** button to apply your selections, or press the **Cancel** button to cancel them.

1a. Event View Source

Press a radio button to choose the parameter that will appear in the event view.

1b. Time Resolution / dot   [0.05, 0.1, 0.2, 0.5, 1sec]

Specify the range that will appear in the event view. The range shown will be the time you specify here x 192.

2. Event view

This area shows the events of the type you selected in Set View.

3. Event list

Displays the events selected in the "9. Select List." To edit an event, select (highlight) it by pressing it in the list.

> **note** *If D32XD data containing Aux 3 and 4 events is loaded into the D16XD, the Aux 3 and 4 events will always be displayed in the event list. You can select and edit these events in the same way as for other parameters.*

4. Edit

Press this button to open the **Edit Event** dialog box.

4a. Event select button

Use this to select the event you want to edit. Press this button and use the **value dial** (or **+/–** keys) to select the event you want to edit.

4b. Parameter/Parameter value [MIDI value]/Location

Select (highlight) the parameter or location that you want to edit, and use the **value dial** (or **+/–** keys) to edit it.

The only way to edit a scene is to change its location. The values will not be updated until you press the **OK** button to confirm your edits.

> ✎ *When editing Aux 3 and 4 (parameter) events loaded in from a song from a D32XD, do not change the parameter. If you do, you will be unable to return them to Aux 3 and 4.*

5. Cut

Press this button to open the **Cut Event** dialog box.
The selected event will be cut (deleted) from the event list. However, the event itself will be temporarily saved in the edit buffer (clipboard).
To execute the cut, press the **Yes** button. To cancel, press the **No** button.
To cut all events in the event list, press (highlight) the **Select All** button and then execute Cut.

6. Copy

Press this button to open the **Copy Event** dialog box.
The selected event will be copied temporarily to the edit buffer (clipboard).
To execute the copy, press the **Yes** button. To cancel, press the **No** button.
To copy all events in the event list, press (highlight) the **Select All** button and then execute Copy.

7. Paste

Press this button to open the **Paste Event** dialog box. The event temporarily saved in the edit buffer (clipboard) will be pasted following the selected event.
To execute the paste, press the **Yes** button. To cancel, press the **No** button.

8. Undo

Press this button to return to the state prior to executing the Cut, Copy, or Paste commands. This can be used only to return to the immediately previous state. If the button indicates **Redo**, you can use it to cancel the **Undo**.

> ✍ *The data is held in common with the "7. Undo" data of "3c-2. Automation." If you press the **Automation Undo** button immediately after event-editing, the last event-edit will be undone - not the automation recording.*

9. Select List

Press this button to open the **Select List** dialog box. Here you can select the channel and parameter that will be displayed in the event list. You can select one (and only one) of channels 1-16, MasterFader, or Expression.

> note *If D32XD data containing Aux 3 and 4 events is loaded into the D16XD, disabling all selections here will let you view only Aux 3 and 4 events. Then you can use "5. Cut" with Select All, and delete all of the Aux 3 and 4 events in a single operation.*

3c-4. Edit Scene

The mixer settings you adjust can be stored as a "scene" at a desired location, and automatically recalled during playback to change the mixer settings (when the "3c-2. Automation" setting **"Automation"** is on). You can also recall a scene when desired as a set of general-purpose settings . You can store one hundred scenes for each song.
Refer to 3c-2. Edit Scene (→Manual: p.108).
4. Automation button has been moved to "Automation" in "3c-2. Automation" (p.9) of this document.

3c-5. Scene Filter

Refer to 3c-3. Scene Filter (→Manual: p.109).

3c-6. Mixer View

Refer to 3c-4. Mixer View (→Manual: p.109).

KORG

KORG INC.
15 - 12, Shimotakaido 1-chome, Suginami-ku, Tokyo, Japan

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