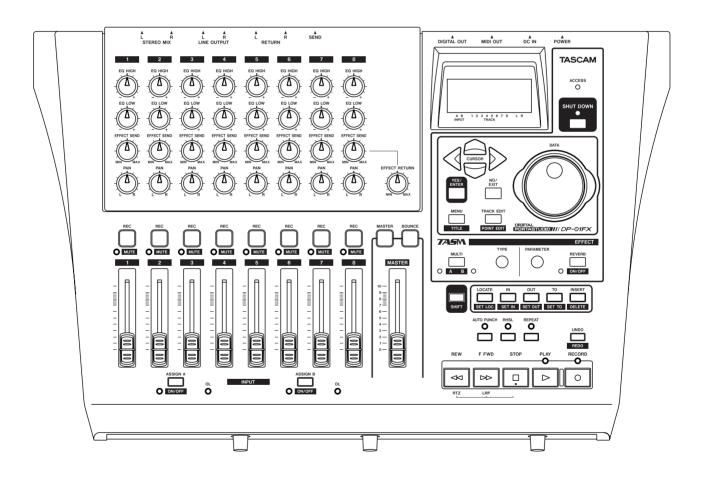


# DP-01/DP-01FX





**OWNER'S MANUAL** 

#### For the consumers in Europe

#### WARNING

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

#### Pour les utilisateurs en Europe

#### **AVERTISSEMENT**

Il s'agit d'un produit de Classe A. Dans un environnement domestique, cet appareil peut provoquer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre des mesures appropriées.

#### Für Kunden in Europa

#### Warnung

Dies ist eine Einrichtung, welche die Funk-Entstörung nach Klasse A besitzt. Diese Einrichtung kann im Wohnbereich Funkstörungen versursachen; in diesem Fall kann vom Betrieber verlang werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.

#### For U.S.A-

#### TO THE USER

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- a) Reorient or relocate the receiving antenna.
- b) Increase the separation between the equipment and receiver.
- c) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- d) Consult the dealer or an experienced radio/ TV technician for help.

#### CAUTION

Changes or modifications to this equipment not expressly approved by TEAC CORPORATION for compliance could void the user's authority to operate this equipment.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records. Model number:\_\_\_\_\_\_ Serial number:\_\_\_\_\_\_

# WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

# **Important Safety Instructions**

- **1** Read these instructions.
- **2** Keep these instructions.
- **3** Head all warnings.
- **4** Follow all instructions.
- **5** Do not use this apparatus near water.
- **6** Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- **9** Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. Grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- **10** Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- **11** Only use attachments/accessories specified by the manufacturer.

**12** Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- **13** Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all serving to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Do not expose this apparatus to drips or splashes.
- Do not place any objects filled with liquids, such as vases, on the apparatus.
- Do not install this apparatus in a confined space such as a book case or similar unit.
- The apparatus draws nominal non-operating power from the AC outlet with its POWER switch in the off position.

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# Getting started

Read this section first. It contains important basic information about using your DP-01 effectively, and helping you create exciting original musical projects. When you have read this section ("Starting out with your DP-01" on page 7), you will be able to find your way around the DP-01, and to make and play back recordings.

Congratulations on your purchase of the TASCAM DP-01. This 8-track digital disk recorder is designed to provide you with great sound in an easy-to-use compact package, allowing you to concentrate on the music, and not on the recording process.

The DP-01 contains a large hard disk, allowing you to record many hours of music, up to two tracks at a time, to a maximum of eight tracks, and then mix them down to a pair of mastered stereo tracks using the built-in mixing facilities.

The stereo mix can then be played back into a suitably-equipped CD recorder, etc. or into a computer's audio inputs for distribution over the Internet, etc. or transferred using a fast USB 2.0 connection to a personal computer.

In addition, individual tracks can be imported and exported between your DP-01 and a personal computer, and songs can be archived, backed up and restored using a PC.

# This manual

Whether or not you have had experience of multitrack recording in the past, you should read this manual in order to understand how to get the best out of the DP-01. This first section gives you an idea of the basic operations of the DP-01 and will get you started with your recordings. Further features are described in "Advanced techniques" on page 25

Note that when we refer to features of the DP-01 such as keys and connectors, we write them like this: **RETURN L** and **R**.

We refer to features of other equipment like this: AUX IN.

When we show messages, etc. that appear on the screen, we show them like this: In Punch Mode.

Take special note of the extra information provided at the side of the main text, especially the WARNING messages.

This manual cannot pretend to be a full guide to multitrack recording techniques. However, if you visit the TASCAM Web site, you can download various documents on recording which may be of interest to you.

**Troubleshooting** The DP-01 has been designed to be easy to use, but sometimes you may need a little help. See the section "Troubleshooting" on page 52 for a list of questions you may have, and answers to help you. There's also a list of messages that may pop up, with an explanation of their meaning, and suggestions on what do to ("Messages" on page 53).

How to do it? At the back of this manual, there's a section called "Commonly-used functions" on page 65. Refer to this section when you want to know how to perform a particular operation.

We give hints and TIP tips on using the DP-01 in this way.

These warnings WARNING should be taken very seriously. They describe situations which can cause injury, or damage to equipment if you don't follow the instructions.

NOTE

These notes at the side of the main text provide additional explanations for special cases, etc.



Cautions

that you may lose

data (your recordings) if you don't follow the instructions.

show

# Copyright

Windows, Windows XP, and Windows 2000 are trademarks of Microsoft Corporation.

Macintosh, MacOS, and MacOS X are trademarks of Apple Computer.

# About the DP-01 models

There are two models of DP-01: the DP-01 and the DP-01FX. The latter model is fitted with phantom-powered XLR input jacks, and internal effect processors. This manual refers to both models as "DP-01", as the majority of the functions are common to both models. Any exceptions are noted.

The final section of this manual, "DP-01FX Appendix" on page 58, however, deals *only* with those features of the DP-01FX which are different to those of the DP-01. You only need to read this section if you own a DP-01FX.

# What's in the box

When you unpack the box, you should find (as well as this manual):

- The unit itself (DP-01 or DP-01FX)
- Power adapter (PS-1225)
- Power cable suitable for your region
- Warranty card

If any of these items is missing, contact your TASCAM dealer or distributor.

#### About the power adapter

WARNING When using the DP-01, only use the PS-1225 power adapter and cable supplied. Do not use this power adapter and cable with any other product.

# Startup & shutdown

Read this section to understand how to power up and power down the DP-01.

WARNING When switching the DP-01 on and off, we suggest that you turn down the volume of any speakers or amplifiers connected to the unit. Also, do not wear headphones connected to the DP-01 when switching power on or off. This will avoid damage to speakers, etc. and possible damage to your hearing.

# Starting up the DP-01

With the DP-01's rear panel power switch OFF, connect the power adapter to the DP-01, the power cable to the power adapter, and the power cable to the power supply.

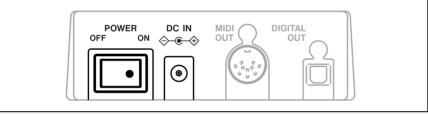


Figure 1.1: Power connections to the DP-01

- Switch on the DP-01 using the rear panel switch.
- The DP-01 display shows a welcome message.

The system is loaded, and the last saved song is then loaded. The **ACCESS** indicator lights to show the hard disk is in use while the song is being loaded, and the display shows the current operation.

• When the ACCESS light goes off, the display shows the "home screen":

You can reach this screen from most operations by repeated presses of the **EXIT** key.

#### Shutting down the DP-01

TASCAM
ACCESS O
SHUT DOWN

#### Figure 1.2: SHUT DOWN and ACCESS

- 1 First, stop playback or recording.
- 2 Press and hold the SHUT DOWN key for about a second. The screen shows:

```
I SHUTDOWN I
I[ENTER] -> Exel
```

- **3** Press ENTER to start the shut down process. The display shows: Storing Song...
- 4 When the song data is stored to hard disk, the display shows:

5 You can now use the rear panel switch to turn off the DP-01.

# The ACCESS light

This red indicator shows that the disk is in use. Although the DP-01 is not a very delicate piece of equipment, you should take care with it, as with all electronic equipment, especially when it is using its hard disk.



WARNING

shutdown process.

NOTE

CAUTION

Do not move the

If you don't shut

down the DP-01 in

Pressing the EXIT

key cancels the

the way described here, you may

lose your recordings and settings.

Always shut down the DP-01 in

the way described here.

DP-01 or turn it off or disconnect the power when the ACCESS indicator is lit, to avoid damage to the hard disk and possible loss of data.

# Navigation

The DP-01 uses a menu system which allows you to make settings, and perform many operations. This section explains how to use the menu system and to check and make settings.

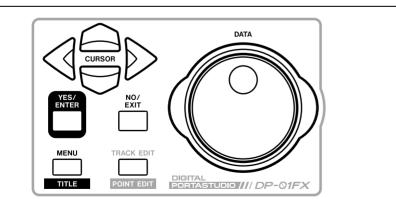


Figure 1.3: Menu controls

Press the MENU key to bring up the opening menu screen:

				-		_			-	-	
 					М	Е	Ν	U		 	 
S	0	Ν	G							0	
D	Ι	S	К							:	
В	Α	С	К	U	Ρ					:	Ŧ

Use the wheel or the ▲ and ▼ keys to scroll up and down through the list of top-level menus. Note how the : symbol changes to an inverted triangle (□) when the menu is highlighted.

At the bottom right of all menu screens is a symbol showing whether there are more menus below the current list  $(\bar{*})$ , above the current list  $(\stackrel{a}{*})$ , or above and below the current list  $(\stackrel{a}{*})$ .

Press the ► cursor key to enter the selected menu. The screen below shows the SONG menu:

 		S	0	Ν	G	М	Е	Ν	U	-	
С	R	Е	Α	Т	Е					C	
S	Α	Ų	Е							:	
R	Е	Ų	Е	R	Т					:	Ŧ

Use the wheel or the  $\blacktriangle$  and  $\blacktriangledown$  keys to select the action from the menu (here the ERASE option is selected—note that there are options above and below the current list):

 		S	0	Ν	G	М	Е	Ν	U		 
L	Ο	Α	D							:	
Е	R	Α	S	Е						C	
С	Ο	Р	γ							:	\$

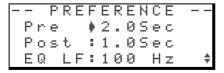
Press ► to enter the menu action screen. In this case, the erase function presents you with a list of songs:

	•	S	0	Ν	G		Е	R	Α	S	Е			
þ	Ы	0		В	L	U	Е	←	-		6	7	М	
	Ŷ	0	U		ω	Ι	Ν			4	2	6	М	
	U	Ρ	S	Т	Α	R	Т			1	8	8	М	Ŧ

• Use the wheel (or the ▲ and ▼ keys) to move the cursor so that it is by the song to be erased, and then press the ENTER key.

I			S	0	Ν	G		Е	R	Α	S	Е		I	I
I	Α	r	e		Э	Ο	ч		s	u	r	e	?	I	

- In cases like this, where the DP-01 asks you a question, the ENTER key now becomes a YES key, and the EXIT key becomes a NO key.
- Some screens allow a number of values to be filled in. In these cases, you should use the ▲ and ▼ keys to move the cursor and the wheel to set the value:



# The SHIFT key

The **SHIFT** key modifies the behavior of a number of different keys. When you press and hold it while pressing another key, the other key takes on the function shown in the label (usually white-on-blue for the DP-01FX and white-on-green for the DP-01) shown below the key.

TP To go up a level in the menu "tree", press the EXIT key.

**NOTE** The song names and sizes shown here will almost certainly be different on your DP-01.

# Titling

You can give titles to your songs, exported tracks, etc. Here's how you do it:

When you see a screen like the one below:

- SONG CREATE -Title [<u>S</u>ONG001 ] [ENTER] -> Exe

- Use the wheel to change the letter above the underlined cursor. You can choose from common punctuation marks, numbers, capital (UPPERCASE) letters, and small (lowercase) letters.
- Use the INSERT key to insert a blank space at the cursor position, and use the SHIFTed INSERT key (DELETE) to delete the character at the cursor.
- When you have finished entering the name, press ENTER. The song, with its new name, is stored to disk.

# Connecting your DP-01 to other equipment

Before you start recording with the DP-01, you will need to make a few connections to other equipment. Figure 1.4 shows how you can connect your DP-01 to your existing audio setup.

# NOTE

Figure 1.4 shows a DP-01FX model. The appearance of the DP-01 differs slightly, but the principles are the same.

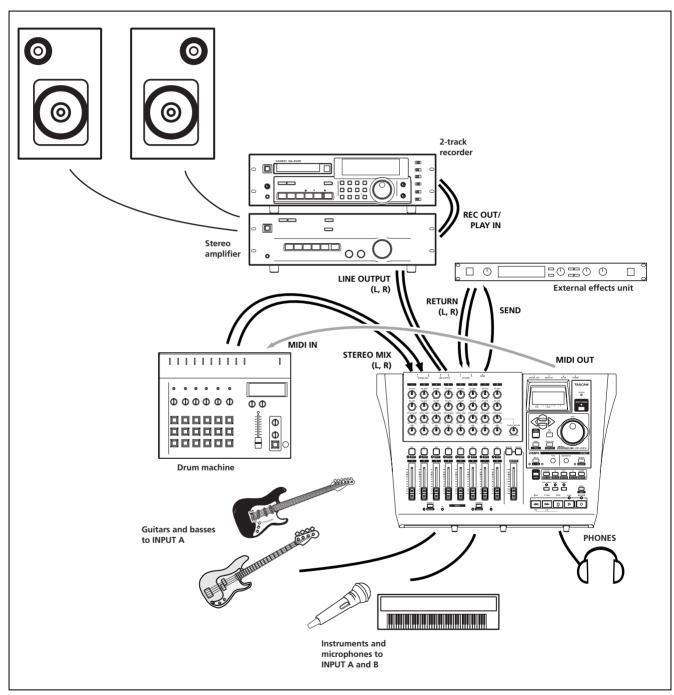


Figure 1.4: Connecting your DP-01 to other equipment

# Connecting your DP-01 to other equipment

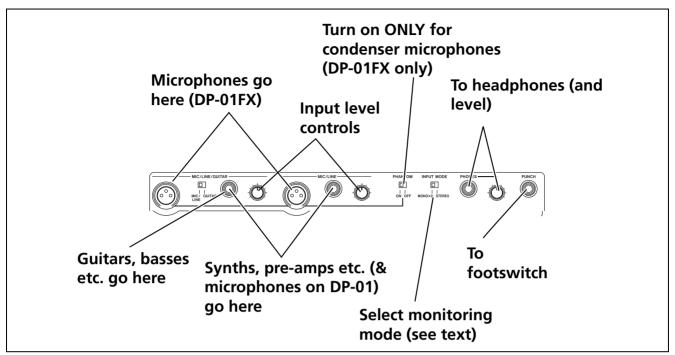


Figure 1.5: DP-01FX front panel

Microphones are connected to the front panel inputs.

Set the **GUITAR/LINE** switches to **LINE**. Turn the input level controls so that the **OL** indicators only just light in the loudest part of the recording.

**Synthesizers, etc.** including drum machines, guitar amplifier simulators, active basses, etc. as well as CD players, cassette decks, and so on can be connected to the front panel input jacks using standard 1/4" mono plugs (unbalanced). When you are recording a stereo source, you should consider the position of the **INPUT MODE** switch (see "The INPUT MODE switch" on page 15).

Set the **GUITAR/LINE** switch to **LINE**. Adjust the input level controls and use the instruments' output volume controls to adjust the level so that the **OL** indicators only just light on the very loudest passages.

**Guitars and basses** (passive types) are connected to the front panel input **A** using a standard 1/4" mono plug (unbalanced).

Set the **GUITAR/LINE** switch to **GUITAR**. Turn the input level control until the **OL** indicators barely light on the loudest passages.

**Headphones** Plug a pair of standard headphones into the 1/4" stereo jack on the front panel.

Adjust the volume with the level control to the right of the jack.

**Footswitch** You can connect a standard "push-to-make" footswitch, such as the TASCAM RC-30P to the front panel **PUNCH** jack.

Use the switch to punch in and out (that is, start and stop recording on the fly).

**NOTE** The DP-01FX includes phantompowered XLR microphone input connectors. See "DP-01FX Appendix" on page 58 for details of using these connectors.

WARNING NEVER plug the speaker outputs of a guitar amplifier into the DP-01.

Use the built-in tuner (on the DP-01FX only) to tune the guitar or bass (see "Tuning a guitar" on page 58).



The footswitch is useful if both

hands are busy playing a guitar, for example.

## The INPUT MODE switch

This switch is important when you are recording from input A and input B together.

This front panel switch affects the way that you monitor the input signals, both through the headphones and/or through the LINE OUTPUT jacks. There are two positions:

- MONO x 2—The signals from input A and input B are both sent to the center of the monitoring "stage".
- STEREO—The signal from input A is sent to the left, and that from input B is sent to the right of the monitoring "stage" forming a stereo pair for use when you are recording stereo instruments such as synthesizers, etc.

# NOTE

**INPUT MODE** does not affect the recording at all—just the monitoring process.



In the MONO X 2 mode, the **A** and **B** 

input signals are added together in the center, and you may hear distortion in the monitoring system This does not affect the recording, though.

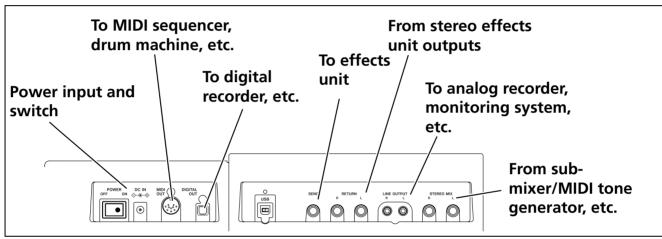


Figure 1.6: Rear panel connections

Monitoring and recording Use the rear panel LINE OUTPUT RCA jacks to connect the DP-01 to your monitoring system (this is a fancy term for an amplifier/speaker setup). When you come to make your final stereo recording, you can use these jacks to connect to an analog recorder.

A typical setup would connect these jacks to the AUX IN of a stereo system.

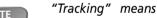
Use the stereo system's selector switch to listen to the AUX source when tracking and bouncing, etc. on the DP-01 as well as when mastering.

When you have mastered the stereo track and you want to record it, set the stereo monitoring system so that the recorder is set to record from the AUX source, and you listen to the recorder, rather than the source.

Effect processor When you want to use an external effect processor with the DP-01, connect the rear panel SEND of the DP-01 to the mono input of the processor (1/4" unbalanced jack).

Connect the stereo outputs of the processor to the two RETURN jacks of the DP-01 (1/4" unbalanced jacks).

NOTE



recordina tracks on the DP-01. "Mastering" means taking these recording tracks and mixing them down to stereo.



The DP-01FX has an internal reverb

processor. However, you can also use an external effect processor if you prefer.

# Connecting your DP-01 to other equipment

**External stereo input** The DP-01 has two 1/4"mono unbalanced jacks on the rear panel marked **STEREO MIX**.

These can be used to connect an external stereo sub-mixer, synthesizer, drum machine, CD player, etc.

The signals input here go only to the analog **LINE OUTPUT** jacks. They cannot be recorded on the DP-01, and the signal level cannot be adjusted using the DP-01.

**Digital output** Use a standard optical digital cable to connect this (rear panel, close to the power switch) to a suitable digital stereo input of a monitoring system, or stereo recorder.

The signals sent from this mirror those sent from the **LINE OUTPUT** jacks (but the **STEREO MIX** signals are not output through the digital output).

**MIDI output** Use this (rear panel) to connect a sequencer, drum machine, etc. which can be started, stopped and synchronized with the DP-01. See "Working with MIDI" on page 35 for details.

You can connect a digital recorder (CD, MD) using the digital connection, and keep using the LINE OUTPUT jacks for monitoring.

# Managing your songs

This section tells you about how to make a new song, as well as basic song management (renaming, deleting, and copying) features. For more details of the disk management, and the other song management features of the DP-01, see "Disk management" on page 36 and "Advanced song management" on page 38.

NOTE

The DP-01. like other audio equip-

ment, always refers to a "song", even though you may be recording only instruments, or spoken word.

# Creating a new song

1 Press the MENU key, use the wheel to highlight the SONG menu item, and press the  $\blacktriangleright$  key.

=	=		S	0	Ν	G	Μ	Е	Ν	U		=	=
	С	R	Е	Α	Т	Ε					0		
	S	Α	Ų	Е							:		
	R	Е	Ų	Е	R	Т					:		Ψ

2 If the CREATE option is not highlighted, use the wheel to highlight it and press the  $\blacktriangleright$  key.

– T							C S	 		-		1		_ ]
	Ľ	Ε	Ν	Т	Ε	R	ן		>		E	x	e	

- 3 Set the title as described in "Titling" on page 12.
- 4 Press ENTER to create the song. The current song is stored before the new song is created.

# Storing songs

Since the DP-01 does not automatically save the audio you record as part of a song, you should get into the habit of performing frequent manual saves, and always shutting down the DP-01 properly ("Shutting down the DP-01" on page 10) to store all data.

1 Press the MENU key, use the wheel to highlight the SONG menu item, and press the  $\blacktriangleright$  key.

==	==		S	0	Ν	G	М	Е	Ν	U		==	==
	С	R	Е	Α	Т	Е					:		
	S	Α	Ų	Е							C		
	R	Е	Ų	Е	R	Т					:		Ŧ

2 Highlight the SAVE option and press the ► key:

			S	0	Ν	G		S	Α	Ų	Е				I
Т	i	t	1	e		C	S	0	Ν	G	0	0	1		]
	Ľ	Е	Ν	Т	Е	R	]			$\geq$		Е	Χ	e	

3 Rename the file if you want to save it as another name and press ENTER, or simply press ENTER to save the file to disk.

The screen shows a message (Saving Song) as the song is saved.

TIP

You can re-title a song by pressing the SHIFTed MENU key to edit

the title of the currently-loaded song.

A "song" is not NOTE just the audio files vou record-it also includes editing, settings, etc.

# Managing your songs

**Reverting to last version** The REVERT action (which follows the SAVE action in the SONG menu) allows you to undo all changes since the last save.

• When you select the REVERT action, the title of the song is shown. Press ENTER to go back to the last saved version, or EXIT to keep the current song as it is.

## Loading a saved song

Of course, saving songs is no use unless you can load them again. This is how you do it.

1 Press the MENU key, use the wheel to highlight the SONG menu item, and press the  $\triangleright$  key.

								_						
==	==		S	0	Ν	G	þ	1	Е	Ν	U		===	=
	S	Α	Ų	Е								:		
	R	Ε	Ų	Е	R	Т						:		
	L	0	Α	D								D		4

2 Highlight the LOAD action, and press the ► key:

		S	0	Ν	G		L	0	Α	D				
þ	М	Э	В	1	u	e	s			1	1	8	Μ	
	G	o	Н	o	m	e			←	2	2	4	Μ	

**3** Use the wheel to move the  $\Rightarrow$  cursor to the song to be loaded (the  $\leftarrow$  symbol means that the song is currently loaded) and press ENTER.

The current song is saved, and the selected song is loaded.

# **Erasing a song**

If your disk is getting full, or you really don't need a song any more, you can erase it.

**1** From the SONG menu, select the ERASE action:

		S	0	Ν	G		Е	R	Α	S	Е			I
þ	М	у	В	1	u	e	s			1	1	8	Μ	
	G	o	Н	o	m	e			←	2	2	4	Μ	

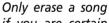
2 Highlight a song and press ENTER.

You are asked if you want to erase the song (Are you sure?).

Press ENTER to erase the song, or EXIT to cancel the operation.

If you erase the current song, the first song in the list is automatically loaded.

CAUTION



if you are certain you don't need it any more (you can't undo this operation!). However, you can use a USB connection to back up songs to a PC before you erase them.

3

#### Erasing many songs at one time

You may want to select a number of songs for erasing.

- Use the wheel to scroll up and down through the list of songs.
- Select a song for erasing using the INSERT key. A check mark ( $\checkmark$ ) appears by the song title.
- De-select a song by using the SHIFTed INSERT (DELETE) key. The check mark disappears.
- Press ENTER when you have selected all the songs to be erased. You are asked if you are sure. Press ENTER again to erase them, or EXIT to exit the process without erasing them.

You can erase all the songs shown, and a new song is automatically created. There is always at least one song on the partition.

#### Song information

It's easy to see the title, working partition, and amount of time left for recording from the "home screen".

- From the home screen, press and hold the EXIT key. While you hold down the EXIT key, the display shows:

					T	1								
			S	О	n	9	Ι	n	f	O				
Ρ	a	r	t.			:	Ρ	a	r	t	0	1		
S	o	n	g			:	М	γ	В	L	U	Е	S	
R	e	C	R	е	m	:	1	2	6	9		m	i	n

The current partition (Part), song title (Song) and amount of time left on the partition for recording (RecRem) in minutes.

#### Other song operations

Other song operations are described in "Advanced song management" on page 38.

TIP This method of working applies to a few other operations (copying, etc.) as well.

# **Assigning inputs**

When we talk about "assigning" inputs, we are talking about linking the signals from the two inputs to the tracks.

You can record on up to two tracks at a time. This means that the same input can be assigned to two tracks at the same time (you can't then use the other input) or the two inputs can be assigned to different tracks. You can't assign both inputs to the same track at the same time.

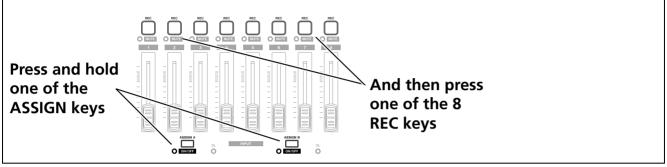


Figure 1.7: Assigning inputs to tracks

- Press and hold the ASSIGN key corresponding to the input signal you are assigning (A or B).
- While holding down the **ASSIGN** key, press the **REC** key of the track to which you are assigning the input.

The **REC** key flashes rapidly.

• If you want to assign the input to another track, you must first clear the current assignment (see below), and then re-assign the input.

Note that the **REC** key of the first track to which you assigned the input flashes when you hold down the **ASSIGN** key.

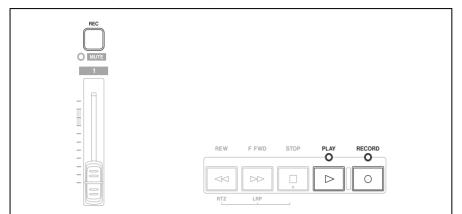
**Clearing an assignment** Hold down the **ASSIGN** key to check current assignments and while holding the **ASSIGN** key, clear current assignments by pressing a flashing **REC** key (which then stops flashing).

Press and hold SHIFT and either

of the **ASSIGN** keys (**A** or **B**) to turn the inputs on or off as shown by the indicator. You may. turn off unused inputs to reduce noise.

# Recording

When you've connected the source, and made the assignments of inputs to tracks, you're ready to start recording.





The DP-01FX contains an input ef-

fects processor (MULTI). See "DP-01FX Appendix" on page 58 for details.

#### Figure 1.8: Recording tracks

- 1 Press the REC key of the track(s) you're going to record on, which start to flash slowly (this is called "arming" the track(s).
- 2 Press and hold the RECORD key and press the PLAY key.

The RECORD key indicator lights red, and the PLAY indicator lights green. The track **REC** indicators stop flashing and light steadily.

- 3 Press STOP when you've finished recording.
- 4 To return to the place where you started recording, press and hold down the STOP key, and press the F FWD (LRP = Last Recording Position) key.

To return to the zero point, press and hold down the STOP key and press the REW (RTZ = Return To Zero) key.

5 Press PLAY to start playback of the recorded tracks.

Use the track fader(s) and the red MASTER fader to adjust the level of what you hear. Adjust the final volume with the headphones control and the monitoring system's volume control.

The pan controls position the track in the stereo "image" created by the left and right speakers (or headphones). The center position is marked by a "click" feel when you turn the knob.

The EQ HIGH and EQ LOW equalization controls work in a similar way to the bass and treble tone controls on a stereo system. The center "click" position of the knob means there's no cut or boost for the appropriate band.

- You can re-record the track if you're not happy with it by going back to the original point and repeating the process.
- When you're happy with your recording, you can un-arm the track(s) ("safe" them) and arm and record on other tracks. Remember to reassign the inputs as well as arming the tracks.
- Press the REW or F FWD keys for a short while and then release them to wind backwards or forwards through your recording (like a tape recorder). Press and hold these keys to increase the "wind" speed. Press STOP to stop the fast winding (again, like a tape recorder).

The faders and NOTE other mixer controls adjust the output level of the recorded tracks, not the input signals.

trols. See "EQ settings"

You can change the setting of the

high and low equalization con-

page 28 for details.

on

# More advanced features

These are not described here, in order to allow you to continue learning the basic techniques of working with the DP-01.

However, you should be aware that these options exist, so that you can make use of them in future projects.

## Locating using marks, etc.

Although "Recording" on page 21 shows you some ways of moving around your song, the DP-01 provides you with ways to jump around the song using location marks as well as allowing to locate directly to a position you set.

• See "Location" on page 25 for details of how to set and use these location marks.

# **Punch recording**

When we talk about "punch recording", we mean going from play mode into record mode without stopping ("punching in") as well as going from recording to playback without stopping ("punching out").

The DP-01 provides three ways to perform punching:

- When at least one track is armed (the REC key is flashing), and a song is being played back, press the RECORD transport key to punch in. When recording, pressing the PLAY key on its own punches out.
- If you have a footswitch connected to the PUNCH jack, you can press the footswitch to change between playback and recording, as long as at least one track is armed for recording.
- You can automate the punch process by setting in and out points. This is described in "IN and OUT marks" on page 26 and also in "Punching" on page 29.

#### Bouncing

The DP-01 provides eight tracks for recording. But what happens if you want to record more than eight instruments?

The DP-01 allows you to play the stereo mix back into two tracks which you can then use as additional tracks. See "Bouncing" on page 31 for full details.

# Track editing

Because the DP-01 is a disk recorder, not a tape recorder, there are many options available to you which would be extremely difficult, or even impossible, with a tape-based recording system.

See "About track editing" on page 46 for details of copy, cut, and paste, etc. operations that you can perform on the DP-01.

# **Undoing operations**

Just like on many computer systems, you can undo many operations (including recording, if you record over something you shouldn't have done).

See the full explanation of how to use the **UNDO** and **REDO** functions in "Undoing operations" on page 50.

# Mixdown and mastering

This is the last stage in making a song, allowing you to create a file which you can play back into a stereo recorder, and export to a WAV file for further processing, archiving, recording, etc. on a personal computer ("Exporting the mastered stereo tracks" on page 45).

Mixdown This is the art of balancing the different tracks you have recorded earlier so that the whole song sounds "right"-everything sounds at the right volume, and the song sounds like one piece of music.

There are no real rules to mixing, except that if you like the mix, and other people like it, it's a probably good mix.

- Use the eight track faders to adjust the relative volume of the tracks and the red MASTER fader to adjust the overall level, and watch the L and R meters at the right of the display to make sure that the mix is not too loud (if it's too loud, it will distort, and sound bad).
- Use the EQ HIGH and EQ LOW (tone) controls to add or take away bass and treble from the individual tracks.
- If you have an external effect processor attached through the SEND and RETURN loop, adjust the EFFECT SEND levels for each track. This is the amount of signal sent from each track to the effect. You can use this to add effects only to certain tracks. Use the EFFECT RETURN control to adjust the amount of the effect returned to the mix.
- Use the PAN controls to adjust the left-right position of each track in the stereo mix.
- To cut out the sound of a track, use the SHIFT key and the track's REC key to mute (the orange MUTE indicator lights for muted tracks) and un-mute the track.

TIP

The most important pieces of

equipment for a mixdown are on either side of your head!

You don't have to TIP keep levels the same through the whole of your song (try raising the level of a guitar during solos, for example).

NOTE

("Reverb" on page 64).

On the DP-01FX only, you can use the internal reverb unit instead of an external effect processor

If you have two TIP tracks with different versions of the same part, you can use the mute function to make easy comparisons between the two.



The track meters show the level of

the signal recorded on the track, not the level sent from the track.

## Mastering

This is where the actual stereo recording takes place when you're happy with the mix you've created. You create a mixed master stereo track, starting at 00:00:00:00 (the "zero point") and continuing to the OUT point.

The mixed stereo master is stored on disk as part of the song.

- Before starting the mastering procedure, you must set the OUT point. This is where the mastering process stops. See "IN and OUT marks" on page 26 for details.
- **1** Press the MASTER key so that it flashes.
- 2 Press and hold the RECORD key and press the PLAY key. Recording starts on the stereo master tracks (RECORD and PLAY are lit).

Make the mix moves (faders, pan, etc.) that you practiced earlier. These mix moves will affect the sound of the final master stereo track.

When the playback point reaches the OUT point, recording stops.

- **3** Press the MASTER key so that it is lit steadily. Now when you press PLAY, you can hear the master stereo mix you have just created. This mix is output through the analog and digital outputs, and you can record it on a stereo recorder.
- 4 If you are happy with the mix, you can then exit the mastering mode by pressing the MASTER key until it is unlit.

If you want to do the mix again, press the MASTER key until it flashes, and re-record. The new mix will overwrite your previous mix.

- If a song has had a master stereo mix recorded and saved with it, you can play back this master stereo mix whenever the song is loaded, by pressing the MASTER key until it is lit steadily and then pressing PLAY.
- To add the STEREO MIX inputs (through the analog outputs only), you can play back the stereo master mix. Any MIDI synchronization, etc. is output as the stereo master mix is played back so that the output from a sequencer, etc. can be added to the analog outputs, and recorded on a stereo recorder (cassette, CD, MD or computer audio program).
- The stereo master mix can be "cloned" to a pair of stereo tracks (see "CLONE TRACK" on page 50).

NOTE

While the DP-01 is in the mastering

mode, you will notice that a number of playback etc. functions are not available. If you try to perform these operations, a popup message tells you that you are in mastering mode.



You can hear any signals received at

the **STEREO MIX** inputs, but they won't be recorded on the master track.

Note that while the MASTER key is lit steadily, you cannot use the mixer controls, except for the

TIP

MASTER fader.

If you want to save a mix from a DP-01

as a file, you can transfer it via USB to a computer (see "Exporting the mastered stereo tracks" on page 45). The operations described here are ones that you may use less often than the ones described earlier in this manual, but you will find useful in your work with the DP-01.

# Location

This section tells you how you can use the DP-01 to jump around to different parts of your songs.

# **Direct location**

The DP-01 displays the current position at the top of the display as hours:minutes:seconds:frames. There are 30 frames in a second.

- From the "home screen" when the DP-01 is stopped, turn the wheel, so that the top time display blinks.
- Use the  $\blacktriangleleft$  and  $\blacktriangleright$  cursor keys to move the underline cursor between the different fields of the time shown at the top of the screen. In this, the seconds field is selected.

ABS 00:02:59:20

- To change the value of the highlighted (underlined) field, use the wheel. Fields "wrap round", so going from 59 seconds to 0 seconds adds 1 to the minutes, etc. As you turn the wheel, the display blinks. If you leave the wheel untouched for a few seconds, or if you press ENTER, it stops blinking.
- If you want to edit another field, use the cursor keys to move to it and then use the wheel.
- You can press PLAY to start playback from the position whose value has just been entered.

# Location marks

The DP-01can store up to 999 location marks per song! Use these to mark the start of verses, vocal entry points, etc.

- To set a location mark (while stopped, recording or playing), press the INSERT key, or press and hold the SHIFT key and press the LOCATE (SET LOC) key at the point where you want the new mark.
- Marks are shown on the display on the second line of the "home" screen. The mark number you see is the one at or immediately before the current position.

The DP-01 can also NOTE display the current time in bars and beats. See "Working in bars & beats" on page 33 for details.

NOTE

Marks are numbered in the order you enter them, not according to their position in the song. Mark 999 can therefore appear in a song before mark 001.

# Location

To move to a location mark Press and hold the LOCATE key, and briefly press and release the REW or F FWD key to move to the previous or next mark in the song. This works while playing back, while stopped or "winding", but not while recording.

Alternatively, press and hold the LOCATE key for about a second to show the location mark list:

Ĥ								0							
			L	0	С	Α	Т	E Ø		L	Ι	S	Т		
— М М	0	0	1	0				0	0	m	3	4	s	2	2
М	0	0	3	:				0	0	m	4	8	s	0	3

Use the wheel to choose a mark (they're listed in the order they appear in the song) and press ENTER to jump to that mark.

**To delete a location mark** Stop playback (or recording) and locate to the mark you want to delete (or a little after). Press and hold down the SHIFT key and press the INSERT (DELETE) key.

**To edit a location mark** If you made a mistake when you entered a location mark, you can change the time of the mark.

- **1** Press and hold the LOCATE key for about a second to show the location mark list.
- 2 Use the wheel to select a mark and press the  $\blacktriangleright$  cursor key to select it.

--- Trim M001---00m34s22f0

- **3** Use the wheel to "slip" the mark backwards and forwards by 1/10 frame (the rightmost digit of the number). You can't move a mark forward past the next mark in the list, or backwards to before the previous mark in the list.
- 4 Press ENTER when done (to return to the home screen) or EXIT (to return to the mark list).

# IN and OUT marks

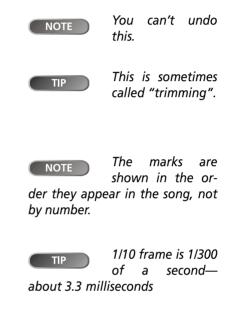
Advanced techniques

These marks are used for setting the points at which automated punch recording starts and ends and for repeat playback, as well as for track editing. You can set these marks while playing back, recording, or while playback is stopped.

- Set IN and OUT marks by pressing and holding the SHIFT key and pressing IN (SET IN) or OUT (SET OUT) at the appropriate points.
- Locate to the IN and OUT points by simply pressing IN and OUT.
- Fine-tune the position of the IN and OUT points by pressing and holding SHIFT and pressing TRACK EDIT (POINT EDIT):

 		Ρ	0	Ι	Ν	Т		Е	D	Ι	Т		 
Ι	Ν		Ρ	0	Ι	Ν	Т					0	
0	U	Т		Ρ	Ο	Ι	Ν	Т				:	
Т	0		Ρ	0	Ι	Ы	Т					:	

- Edit the point, to 1/10 frame accuracy, using the cursor keys and the wheel, in the same way as for direct location ("Direct location" on page 25).
- Press ENTER when done.



(along with the TO mark, which is set and used in the same way) when performing track editing functions.

# Using the meters

The meters are important to let you know what's going on with the audio in the DP-01. Here are a few little hints and tips which may help you.

As well as telling you the level of signals, the meters can show you if the signals are actually getting to the DP-01. Even if you can't hear anything and the input meters are showing a signal, it means that the connections from the instrument to the DP-01 are in order (and you should probably check your monitoring equipment levels).

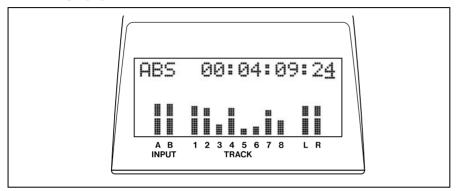


Figure 2.1: The DP-01 meters

First, it's important to remember that meters should never be continuously at the top of the bar. If they are, it means the level is too high, and you will probably experience distortion. Digital distortion is unpleasant (unlike, say, tube guitar amp distortion), and you need to avoid it.

**Input meters** These meters (**A** and **B**) show the level of the signal coming into the DP-01. Adjust the level with the front panel controls, or the instrument volume control, if available.

**Track meters** These meters (1 through 8) show the volume of the signal recorded on the track (un-armed tracks) or entering the track (armed tracks). Remember that the faders do not control the level of signals sent to the track, and will never affect the track meter readings.

**Master meters** These meters (L and R) show the master level at all times. The **MASTER** fader controls the level of these meters.

# Setting the meter type

If you don't like the look of the meters, you can change them.

**1** Press MENU, and then select the PREFERENCE menu:

 		Ρ	R	Е	F	Е	R	Е	Ν	С	Е	 
М	e	t.	e	r	∳	S		F	a	t.		
Ρ	r	e			:	3		5	S	e	С	
Ρ	o	s	t.		:	1		8	S	e	С	Ŧ

- 2 The Meter option allows you use the wheel to pick from four options:
- S.Fat (short and fat)
- S.Slim (short and thin),
- L.Fat (tall and fat)
- L.Slim (tall and thin)

The behavior of all these is the same—just the appearance differs.

# **EQ** settings

On the DP-01, you can set the frequency at which the EQ HIGH and EQ LOW controls work; individually for each channel.

- **1** Press MENU, and then select the PREFERENCE menu.
- 2 Use the arrow keys to scroll to EQ FRQ:

 		Р	R	Е	F	Е	R	Е	Ν	С	Е			
Ρ	o	s	t			:		1		5	S	e	C	
Е	Q		F	R	Q	۵								
Ν	S	Ρ				:		1	0					ж.

**3** Press the ► cursor key:

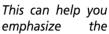
 	Е	Q		F	R	Е	Q	U	Е	Ν	С	γ		
S	o	u	r	С	е		þ		Т	r	a	С	k	1
Н	i	g	h				:			1	0	k	Н	Z
L	o	ω					:		1	0	0		Н	Z

4 Use the cursor keys and wheel to set these parameters.

Source This is the track affected by this setting, from Track1 through Track8.

- **High** This is the frequency for the **EQ HIGH** control. Choose from 1.7, 1.8, 1.9, 2.0, 2.2, 2.4, 2.6, 2.8, 3.0, 3.2, 3.4, 3.6, 3.8, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 9.0, 10, 11, 12, 13, 14, 15, 16, 17, 18 (all measured in kHz).
- Low This is the frequency for the EQ LOW control Choose from 32, 40, 50, 60, 70, 80, 90, 100, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 850, 900, 960 (Hz), 1.1, 1.2, 1.3, 1.4, 1.5, or 1.6 (kHz).





emphasize the particular points of the recordings on each track.

The NSP setting is only available on the DP-01FX. The DP-01 will not show this option.

# Punching

As mentioned in "Punch recording" on page 22, the DP-01 provides two manual ways of changing between playback and recording modes: using the **PLAY** and **RECORD** keys, and using the foot switch. There is also an automated punch mode, described here.

# Rehearsal

The auto-punch mode also allows you to rehearse your playing before actually making a recording.

- 1 First, set the IN and OUT points ("IN and OUT marks" on page 26) so that they correspond to the points where you want recording to start, and where you want it to finish.
- 2 Assign an input or inputs to a track or tracks ("Assigning inputs" on page 20), and arm those track(s) for recording (press the track's **REC** key so that it flashes).
- **3** Press the AUTO PUNCH key so that it lights.
- 4 Press the RHSL (rehearsal) key so that it lights.
- 5 Press the PLAY key.

Playback starts from before the IN point (the PLAY indicator is lit).

At the IN point, the playback of the armed track(s) stops. The **RECORD** indicator starts to flash.

At the OUT point, the signal you hear returns to what you recorded earlier. The **RECORD** indicator stops flashing.

When playback reaches the post-roll point, it stops. When you do your next rehearsal or punch, playback will start from the pre-roll point.

TIP The RHSL key on its own (without AUTO PUNCH lit) allows you to simulate recording without committing a take to disk.

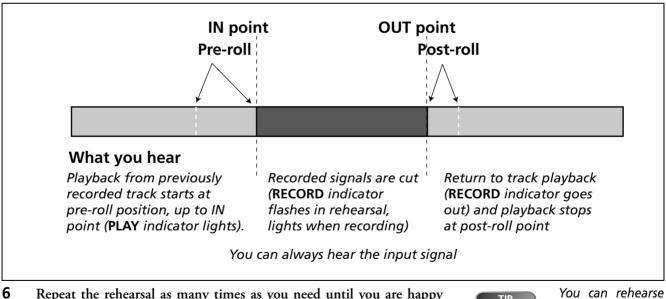
If you're replacing a mistake, make sure that the sound you are recording matches the sound on either side (same effect settings, etc.).



If the IN and OUT points are not

Punching

where they should be for your punch recording operation, you can turn off **AUTO PUNCH** and edit their position ("IN and OUT marks" on page 26).



6 Repeat the rehearsal as many times as you need until you are happy with your performance.

by looping between the pre-roll and post-roll points using the **REPEAT** key.

# Punching

#### Punch recording

When you have rehearsed your punch recording, you can start recording.

- Press the RHSL key so that the indicator goes out (but the AUTO 1 PUNCH indicator is still lit).
- 2 Press PLAY so that playback starts. Use the pre-roll time to get ready to record.

At the punch-in point, the DP-01 goes into record mode (the RECORD indicator lights).

At the punch-out point, recording stops (the RECORD indicator goes out), and playback continues until the post-roll point and then returns to the pre-roll point. The AUTO PUNCH indicator is turned off (the track arming status stays the same).

If you want to re-record the punch, turn AUTO PUNCH back on before recording again.

#### Pre-roll and post-roll times

The pre-roll and post-roll times can be set to suit your style of playing.

1 Press MENU and scroll down to PREFERENCE and press the ► key.

```
PREFERENCE
Meter:S.Fat
Pre
     ♦3.5Sec
     :1.8Sec
Post
```

- 2 Use the cursor keys to move the cursor to the Pre (pre-roll time) item, and use the wheel to set the value in seconds.
- 3 Use the cursor keys to move down to the Post (post-roll time) item and the wheel to change the value.
- 4 Press EXIT when you're done, so that you can start using these settings.



The pre-roll and post-roll times can be set between 1.0 seconds and 9.9 seconds in 0.1 second steps

Bouncing

# **Advanced techniques**

# Bouncing

1

2

3

4

5

6

7

8

Drums L

Drums R

E. Guitar 1

E. Guitar 2

Acoustic Guitar

Bass

"Bouncing" on the DP-01 refers to the technique of mixing recorded tracks through the **MASTER** fader to a pair of unused tracks.

MASTER(stereo)

BOUNCE

Figure 2.2: Bouncing tracks

You might use a track bounce operation in the following situation:

You've recorded the drums in stereo, the bass and two rhythm guitars (one acoustic and one electric) and an electric guitar lead line. There are two tracks left. You'd like some stereo organ chops, and there are two lead vocal lines to record, as well as at least one set of backing vocals. But there are only two tracks left!

Happily, you can bounce everything through the stereo tracks, and record them onto the two spare tracks.

- "Un-arm" (safe) the existing tracks so that you don't accidentally 1 record over them.
- 2 Press the BOUNCE key (above the MASTER fader) so that it lights.
- 3 Arm the two tracks which will receive the mix.
- 4 Use the faders and mixer controls of the tracks you're bouncing to create a stereo mix.
- 5 Adjust the overall level of the mix using the MASTER fader. Watch the meters on the two armed tracks to make sure they don't overload.
- 6 When you're ready, use PLAY and RECORD to record the mix onto the two armed tracks from start to end, with no stops. "Safe" the armed tracks.
- You can now record over the original tracks, playing along to the stereo pair created from the bounce.

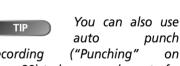
copy the song and give it another name (see "Copying songs" on page 38) before starting the bounce, so that you can go back to the original if necessary.

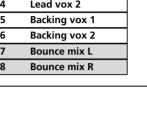
You may want to

punch auto ("Punching" recording on page 29) to bounce only part of a song between the IN and OUT points.

Organ L 1 2 Organ R 3 Lead vox 1 4 Lead vox 2 5 Backing vox 1 6 Backing vox 2 Bounce mix L 7 Bounce mix R 8

You can bounce to one track, if you want, but you will probably want to bounce in stereo.







# Repeat

Repeat allows you to repeat the playback or auto-punched rehearsal (see "Rehearsal" on page 29) between the IN and OUT points.

- First, set the IN and OUT points at the place where you want the repeat loop to start and stop (see "IN and OUT marks" on page 26).
- Press the **REPEAT** key briefly so that the indicator lights. Playback starts automatically from the IN point.
- When the playback reaches the OUT point, playback pauses for a short while (see "Setting the repeat interval" on page 32) and the PLAY indicator flashes before playback starts again, and the PLAY indicator lights steadily.
- Turn off the repeat function by pressing **REPEAT** so that the indicator goes out.

Repeat auto-punch rehearsal, but not repeat auto-punch recording, is also possible. If AUTO PUNCH, RHSL and REPEAT are all lit, pressing RHSL to go from rehearsal to auto punch recording mode will also turn off REPEAT.

# Setting the repeat interval

You can set the time between repeats up to 9.9 seconds.

Press and hold the **REPEAT** key for about a second, and the screen shows:

Α	В	S			0	0	:	0	2	:	3	4	:	2	1
		R	Е	Ρ	Е	Α	Т								
	Ι	Ν	Т	Е	R	Ų	Α	L		þ		1		7	

Use the wheel to set the repeat interval from 0.5 seconds to 9.9 seconds in 0.1 second steps.

Press **REPEAT** again briefly to exit the interval setting mode.

NOTE	You car	n't set ti	hese
NOTE	points	when	the
REPEAT key	is lit.		

TIP

This repeat interval allows you to

reposition your hands for a guitar lick, take a breath for a vocal phrase, etc. when you are rehearsing.

Most rock and pop

music is in 4/4

(with a few famous exceptions).

TIP

Waltzes are in 3/4.

# Working in bars & beats

As well as working in minutes and seconds (as explained in detail in "Direct location" on page 25), the DP-01 can work in musical bars and beats. This is especially useful when working with external MIDI devices (see "Working with MIDI" on page 35).

## Tempo setting

For the bars/beats function to be useful, you must set up a tempo and time signature which allow the DP-01 to calculate where the bar and beat divisions fall, based on the tempo of your song.

- 1 With playback stopped, press MENU and select the MIDI menu.
- 2 Select the TEMPO/T.SIG (tempo and time signature) action and press the ▶ key:



- **3** There are two parameters here, the tempo and the time signature. Use the cursor and wheel to set these.
- The tempo is measured in beats per minute (bpm) and can be set from 20 to 250.
- The time signature can be set with the number of beats to the bar (1 through 12) and the number of beats per whole note (1, 2, 4, or 8).

#### Selecting the time mode

BAR

Once the time signature and tempo are set, the DP-01 can map the bar and beat divisions to the time.

To display bars and beats: On the "home" screen, move the cursor to

the ABS field:

AB<u>s</u> 00:00:05:12

Turn the wheel clockwise. ABS changes to BAR and the current position in bars and beats is shown, with the tempo shown on the right of the screen:

002-01

50

With the cursor at BAR, turn the wheel counterclockwise to return to the time-based display.

- Location is performed in the same way as described in "Location" on page 25, except that there are only two fields now; bars and beats.
- **Track editing** is also performed in the same way as described in "About track editing" on page 46, but because the editing points are now set to a bars and beats-based position, the editing can be more "musical".

"Bars" are also sometimes ref-

erred to as "measures".

**Advanced techniques** 

**Point editing** Even when the screen shows positions in bars and beats, location points are edited in minutes and seconds ("To edit a location mark" on page 26), but with the important difference that the bars and beats equivalent is also shown.

When the LOCATE key is held down in "bars and beats" mode, the display looks something like this:

В	Α	R				0	0	3	 0	2			5	9
			L	0	С	Α	Т	Ε	L	Ι	S	Т		
Μ	0	0	1	∳		0	0	4	 0	3			5	9
M M	0	0	2	:		0	0	7	 0	5			5	9

Selecting a point to edit shows the bars and beats below the absolute time value. The bars and beats cannot be set directly, but change, together with the absolute time value, as the wheel is turned:

Trim M001 . .... .... 00m15s24f0 (BAR 004-03 59

#### Metronome

To help you keep in time, the DP-01 provides a MIDI metronome which can be used to trigger an external sound generator. Typically, you will use a percussion instrument or instruments (such as open and closed hi-hats), but you can use any instrument which helps you keep time.

You can set the MIDI channel, the normal "click" note and Note On velocity and the accented note and Note On velocity.

- 1 Press MENU and scroll down to MIDI and press the ► key.
- 2 Select the METRONOME action and press the ► key:

 			М	Е	Т	R	0	Ν	0	М	Е			
М	o	d	е				þ	R	e	C	8.	Ρ	1	у
М	Ι	D	Ι		С	h	:			1	0			
Α	С	c	Ν	o	t	e	:			С	#	2		Ψ

#### Scroll down the list and set the following parameters:

**Mode** This is either Off, RecOnly (only while recording is taking place) or Rec&Play (both during recording and playback).

**MIDI Ch** The MIDI channel on which the metronome signals are output.

**AccNote** The note played at the start of each bar. C3 is equivalent to MIDI note 60.

**AccVelo** The velocity (which typically affects the volume) of the note at the start of each bar.

**NrmNote** The note played at each beat, except at the start of each bar. C3 is equivalent to MIDI note 60.

**NrmVelo** The velocity (which typically affects the volume) of the note at each beat, except the start of each bar.



being edited.

Channel 10 is defined as the default drum channel for all General MIDI devices.

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# Working with MIDI

The DP-01 is equipped with a MIDI OUT jack. This can be used to drive a sequencer, or drum machine, etc. either synchronized to a time base, or a MIDI clock (see below for an explanation of how this works). The MIDI OUT is also used to drive a MIDI instrument as a metronome (see "Metronome" on page 34).

A MIDI instrument can be connected to the A and B inputs, or mixed with the recorded tracks from the analog outputs if it is fed into the **STEREO MIX** inputs.

# MIDI Clock, etc.

The MIDI song control messages put out by the DP-01 from the MIDI OUT port include tempo (MIDI Clock), bar and beat information (Song Position Pointer), and Start/Stop/Continue messages. This way of working is particularly suitable for synchronizing with bar/beat-based MIDI devices such as drum machines and rhythm units.

- 1 Press MENU and scroll down to MIDI and press the ► key.
- 2 Select the GENERATOR action and press the ► key:

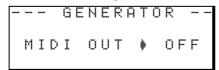
 			G	Ε	Ν	Е	R	A	T	0	R			
Μ	Ι	D	Ι		0	U	Т		þ		0	F	F	

- **3** Use the wheel to change the OFF setting to CLK (clock).
- The DP-01 now sends the messages described here from the MIDI OUT when playing back or recording. Connect the MIDI OUT of the DP-01 to the MIDI IN of your MIDI instrument.
- Consult the documentation of the MIDI instrument for details of how to synchronize to MIDI Clock, etc. messages as a slave.

# **MIDI timecode**

MIDI Timecode sends out the current position in hours, minutes, seconds and frames through the MIDI OUT port. Typically, you will use the timecode function with devices such as recorders and Digital Audio Workstations (DAWs) that work to a time base, rather than a bars and beats base.

- 1 Press MENU and scroll down to MIDI and press the ► key.
- 2 Select the GENERATOR action and press the ► key:



- **3** Use the wheel to change the OFF setting to MTC (MIDI Timecode).
- The DP-01 now sends timecode from the MIDI OUT when playing back or recording. Connect the MIDI OUT of the DP-01 to the MIDI IN of your MIDI device.
- Consult the documentation of the MIDI device for details of how to synchronize to MIDI Timecode as a slave.

The DP-01's MIDI Timecode is fixed at a frame rate of 30fps and cannot be changed. Working with MIDI

You must set a tempo and time signature on the DP-01 ("Tempo setting" on page 33) to use this feature.

# Disk management

The DP-01 allows you to manage the internal hard disk, formatting and re-partitioning the disk to suit your needs.

The DP-01's hard disk is divided into partitions. Songs can be created on a partition and moved to another one later for archive purposes, etc. or you can use different partitions for different types of song.

In addition to the song partitions, there is also a FAT-formatted partition. This is the part of the hard disk that can be read by a personal computer when the DP-01 is connected using USB. Whenever you want to archive or store a song on a computer, export a mix to a computer, or import an audio file for inclusion in a song, the data must be copied in two operations, passing through this FAT partition on the way.

# CAUTION

partitioning are "destructive" actions. You cannot undo them, and the changes are permanent.

read by all personal computers.



The FAT format (File Allocation Table) is a disk format which can be

Formatting and re-

Selecting the active partition

Choose the active partition, from which you can load existing songs and on which you can create new songs, etc.

- 1 Press MENU and select the DISK menu.
- 2 Select the PARTITION action and press the ► key

			Ρ	Α	R	Т	Ι	Т	Ι	0	Ν			 
∳	Ρ	a	r	t	0	1		←		1	6	G	В	
	Ρ	a	r	t	0	2				1	6	G	В	
	Ρ	a	r	t	0	3					1	G	В	



You cannot select the FAT partition

- An arrow  $(\leftarrow)$  shows the active partition. The sizes of the partitions are shown (not the available space).
- 3 Move the cursor () to the partition to make active and press ENTER.

The DP-01 stores the current song, loads the current song on the new partition and shows a series of messages about the progress of the operation.

#### Formatting a disk

As well as formatting the disk, this allows you to set the size of the DP-01 native partitions.

- 1 Press MENU and select the DISK menu.
- 2 Select the FORMAT action and press the ► key

FORMAT Size 37GB Disk Parti Size 32GB [ENTER] -> Exe

- 3 Use the wheel to select the size of the partitions (32, 16, 8 or 4 gigabytes—1 gigabyte is 1024 megabytes).
- All partitions will be the same size, except the last one, which will be the size of the remaining space.
- 4 Press ENTER.

here.

This destroys all CAUTION

data on the whole disk. You cannot undo it. ONLY CARRY OUT THIS OPERATION IF YOU ARE SURE THIS IS WHAT YOU REALLY WANT TO DO.

The disk size NOTE shown on the display may vary from the example given here.

A message reminds you that all songs will be lost.

5 Press ENTER again to format the disk with the new partition sizes (or **EXIT** to escape without formatting).

### Formatting a partition (Reform)

If you want to keep partition sizes the same, or you only wish to clean out one partition of the hard disk, this is the way to do it.

- 1 Press MENU and select the DISK menu.
- 2 Select the REFORM action and press the ► key

					R	Е	F	0	R	М				 
∳	Ρ	a	r	t.	0	1		←	-	1	6	G	В	
	Ρ	a	r	t.	0	2				1	6	G	В	
	Ρ	a	r	t.	0	3					1	G	В	

An arrow  $(\leftarrow)$  shows the active partition. The sizes of the partitions are shown (not the available space).

3 Select the partition to be re-formatted (shown by the # cursor) and press ENTER.

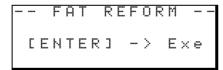
A popup message reminds you that all data on the partition will be lost.

4 Press ENTER to reformat the partition.

### Formatting the FAT partition

The FAT partition is used for transfer between the DP-01 and a personal computer. Its size is fixed by the DP-01, and cannot be changed.

- 1 Press MENU and select the DISK menu.
- 2 Select the FAT REFORM action and press the ► key



3 Press ENTER.

> A popup message reminds you that all data on the FAT partition will be lost.

4 Press ENTER to reformat the FAT partition.

### Automatic song creation

After formatting a disk or a partition, a new song is always created on any blank partition, in the same way that one is created if the only song on a partition is erased. You always have a song available to work on.

You cannot undo CAUTION this operation—all data on the FAT partition is lost. ONLY CARRY OUT THIS OPERA-TION IF YOU ARE SURE THIS IS WHAT YOU REALLY WANT TO DO.

Disk management

It is most important that the power to the DP-01 is not turned off when the disk is being formatted. If this happens, the unit may become unusable.

You cannot undo CAUTION this operation—all data on the selected partition is lost. ONLY CARRY OUT THIS OP-ERATION IF YOU ARE SURE THIS IS WHAT YOU REALLY WANT TO DO.

WARNING

### Advanced song management

### **Copying songs**

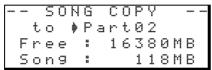
The DP-01 disk is divided into "partitions" (see "Disk management" on page 36). You can use different partitions for different purposes: old songs/new songs, or instrumentals/vocal numbers, for example.

This function allows you to copy a song to another partition.

**1** From the SONG menu, select the COPY action:

		S	0	Ν	G		С	0	Ρ	γ				
∳	М	Э	В	1	u	e	s			1	1	8	Μ	
	G	o	Н	o	m	e			←	2	2	4	М	

2 Highlight a song and press ENTER.



- **3** Use the wheel to select the "target" partition that the song will be copied to. As you scroll through the partitions, you will see the available free space figure change, so you will always know if there is enough space for the song.
- 4 Press ENTER when you've selected the target partition.

You are asked if you want to copy the song (Are you sure?).

Press ENTER to copy the song, or EXIT to cancel the operation.

5 The DP-01 then provides you with a progress report as it carries out the copying operation. When it is finished, you see the copy screen again.

### Deleting unused data

Because a DP-01 song is not just the parts you hear, but you can edit the audio (see "About track editing" on page 46), there may be other parts which have been cut out or overwritten, and some wasted space.

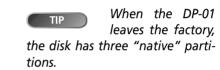
You delete the unused data from the currently-loaded song.

**1** From the SONG menu, select the DEL/UNUSED action:

-SONG DEL/UNUSE-Title : MyBlues [ENTER] -> Exe

2 Press ENTER to delete the unused data, or EXIT to cancel the operation.

You can also use the multiple selection procedure described in "Erasing many songs at one time" on page 19 to copy many songs at once.



CAUTION CAUTION Cannot be undone. Only do it if you are sure you do

not want the unused parts.

### **Protecting a song**

When a song is protected, it cannot be edited, and further recording is not possible. Of course, it cannot be erased, either.

**1** From the SONG menu, select the PROTECT action:

	S	0	Ν	G		Ρ	R	0	Т	Е	С	Т			
Т	i	t	1	e		:		М	у	В	1	u	e	s	
Ρ	r	o	t	e	С	t.		∳	0	F	F				
	С	Е	Ν	Т	Е	R	]			$\geq$		Ε	×	е	

- 2 Use the wheel to change protection from OFF to ON and press ENTER.
- In lists of songs for copying, deletion, etc., a "padlock" icon () appears beside any protected songs.
- If you try to do an action which cannot be performed on a protected song, a message appears (Song Protected).
- Unprotect a song by following the steps above, but changing ON to OFF.

### Using the USB connection

You can use a personal computer to read and write from the FAT partition of the hard disk.

Data transfer between a personal computer and the DP-01 is always done through this FAT partition. It is not possible to access the "native" partitions directly from a PC and so all transfers are a 2-stage process.

Within the FAT partition, there are three directories (folders): BACKUP, WAVE and UTILITY, as explained below.

You can make the following transfers:

- Whole songs-the DP-01 calls this BACKUP (from the DP-01 to the BACKUP directory of the FAT partition to the PC) and RESTORE (from the PC to the BACKUP directory of the FAT partition of the DP-01).
- Tracks in WAV format—tracks can be exported (one or more at a time) as WAV files, or imported (one at a time) from WAV files between the PC and the WAVE directory of the FAT partition of the DP-01.
- Mastered stereo mixes-export only, as stereo WAV files to the WAVE directory of the FAT partition of the DP-01.

### System requirements

The DP-01 will work with the following Microsoft operating systems: Windows Me, Windows 2000, and Windows XP. It will work with the following operating systems from Apple Computer: MacOS 9.0 and above, and MacOS X 10.2 and above.

For all the above operating systems, no driver is required. The DP-01 simply appears as a removable disk.

However, you should always follow your computer's instructions on how to disconnect a USB removable drive safely from your system. If you do not do this, there is a risk of data corruption in the FAT partition.

### Disconnecting from Windows Me / 2000 / XP systems With

Windows Me, Windows 2000 and Windows XP, the procedure is a little more complex than simply unplugging the DP-01.

In the system tray (typically at the bottom right of the screen), you see an icon picture of a PC card and an arrow.

### Left-click this icon to show a popup bar. Click this popup bar to allow the DP-01 to be removed from the computer.

### Stop USB Mass Storage Device - Drive(F:)

### Figure 2.3: Disconnecting the DP-01

2 When the panel telling you it is safe to remove the DP-01 appears, press the DP-01 EXIT key to "close" the system (see ""Open" and "Close"" on page 41):

```
[EXIT]->close
```



We use the term "PC" throughout

this section to mean either a Windows or Macintosh personal computer.



tions described here.

Do not rename or delete these directories—if you do, you will lose the ability to carry out the opera-

The UTILITY direc-NOTE tory is used for DP-01 system updates, etc. Explanations of how this is used are given

with the update software.

NOTE

Data transfer between the DP-01

and a PC takes place at USB 2.0 speeds (maximum). If your computer has USB 1.1, but no USB 2.0, data transfer will still work, but slower. Additionally, we recommend that you always use a highquality USB 2.0 cable in order to maximize data transfer speeds.

- **3** You can now unplug the USB cable.
- If a panel telling you that it is not safe to remove the DP-01 appears, do not "close" or unplug the DP-01. Close all programs and windows that are accessing the files on the DP-01 and try again

**Disconnecting from a Macintosh system** When you are disconnecting the DP-01 from a Macintosh system (OS 9 or OS X), drag the disk icon to the Trash, or press Command-E (OS X 10.3 also has a button in the Finder which allows ejecting removable media). When the icon has disappeared from your desktop, you can disconnect the DP-01.

### "Open" and "Close"

Before using the DP-01's FAT partition, you must "open" the system so that it can be read by the PC. While the system is open, you cannot perform any recording or playback etc. or any operations involving the DP-01 hard disk.

- **1** Connect the DP-01 to the PC.
- 2 Press MENU and select the DISK menu.
- 3 Select the USB OPN/CLS action and press the ► key

-- USB OPN/CL --[ENTER] -> Exe

- **4** Press ENTER to open the disk. A popup message appears, asking if you are sure.
- **5** Press ENTER again. The screen shows:

[EXIT]->close

The DP-01 is now locked until you press EXIT.

### Backing up and restoring songs

When you back up a song, you're backing up the audio tracks, as well as any editing, etc. Reverse the process (computer hard disk to FAT partition to DP-01 disk) when you want to restore a song.

### **Backing up**

- Before you start, make sure that you've selected the partition containing the song you're going to back up ("Selecting the active partition" on page 36).
- **1** Press **MENU** and select the BACKUP menu.
- 2 Select the SONG BACKUP action and press the ► key

	 			В	Α	С	К	U	Ρ				
∳	М	Э	В	1	u	е			←	1	2	7	М
	В	i	g	В	a	n	g			2	3	4	М
	Т	r	i	o	Ι	n	F			3	1	2	М

The current song is shown with the  $\leftarrow$  symbol beside it.

**3** Use the wheel to move the selection cursor (\*) to the song to be backed up. Press ENTER.

Make sure that you have saved songs, copied all the files you're going to transfer to the PC to the FAT partition, etc. before you open the DP-01.

CAUTION from the computer side (see "Using the USB connection" on page 40) before pressing EXIT.

Remove the DP-01

**Jsing the USB connection** 

## Using the USB connection

4 You can now use the left and right cursor keys and the wheel to name the song archive (up to 7 characters):



**5** Press ENTER to back up the song to the FAT partition. An error message appears if there is not enough space.

The song is then copied as an archive from the current partition to the FAT partition (with a .001 extension). Messages appear on the screen as the DP-01 goes through the file archiving process.

- 6 Connect the DP-01 to the computer using the USB cable, and "open" the drive (""Open" and "Close"" on page 41).
- 7 Use the PC operating system to copy or move the song archive from the BACKUP directory of the DP-01 FAT partition to the PC.
- Once the song archive is on the PC, you can "close" the DP-01.
- The song archive on the PC can then be backed up to CD-R, etc. You can restore it later to the same DP-01 or to a friend's DP-01, allowing you to complete the recording at another location, or perform the final mix where there are better speakers available, etc.

### **Restoring a song**

This is basically the reverse of the backup process, allowing you to transfer a song archive from a PC to the DP-01.

- 1 Connect the DP-01 to the PC using the USB cable, and "open" the drive (""Open" and "Close"" on page 41).
- **2** Use the PC operating system to copy the song archive from the PC to the BACKUP directory of the DP-01 FAT partition.
- **3** "Close" the DP-01.
- 4 Press MENU and select the BACKUP menu.
- 5 Select the SONG RESTORE action and press the ► key. The display shows the song archive files on the FAT partition

--- RESTORE ----MYBLUE .001 ♦ BIGBANG.001 TRIOINF.001

- 6 Select a song archive using the wheel and press ENTER. The current song is saved.
- 7 The "real" song name is extracted from the archive and shown:

|Song:BigBang | |Are you sure ?|

8 Press ENTER to load the archived song as the current song. Suitable messages are shown if there is not enough disk space, etc.



#### If you do not have enough space on

the FAT partition to back up a song, you must connect the DP-01 to a PC and manage the files from the PC.

You should not rename the song archive on the PC as this may "confuse" the DP-01 when you come to restore it.

NOTE If there are no song archive files on the FAT partition, a message is shown.

NOTE

Although the DP-01 displays shorter

filenames with spaces at the end of the name, these spaces are not part of the actual filename.

### Importing and exporting tracks

You can import and export individual tracks to and from a PC via the FAT partition. The files used for track import and export are 16-bit 44.1 kHz mono WAV format (and must have the .WAV extension). Audio in other formats intended for import must be converted before the import operation.

### Importing a track

Before you start, make sure that you have selected the partition containing the song to which you want to import the track, and that the song is loaded.

- 1 Connect the DP-01 to the PC, and "open" the drive (""Open" and "Close"" on page 41).
- **2** Use the PC operating system to copy the WAV file from the PC to the WAVE directory of the DP-01 FAT partition.
- **3** "Close" the DP-01.
- 4 Press MENU and select the WAVE menu.
- 5 Select the IMPORT TRACK action and press the ► key. The display shows the song archive files on the FAT partition:

	Ι	М	Ρ	0	R	Т		ω	Α	Ų	Е		
þ	В	Ι	G	D	R	U	М	S		ω	Α	Ų	
	В	Е	L	L	S					ω	Α	Ų	
	М	β	L	Е	Α	Н	Н	S		ω	Α	Ų	

**6** Use the wheel to select the WAV file to be imported and press ENTER.

	Ι	М	Ρ	0	R	Т		ω	Α	Ų	Е			I
	t.	o		∳		Т	r	a	С	k		2		
F	r	e	е		:			4	0	2	3	М	В	
W	a	v			:					7	5	М	В	

The display shows the amount of free space on the current partition, and the size of the selected WAV file.

- 7 Use the wheel to select the track into which the WAV file will be imported. Press ENTER. Suitable messages are shown if there is not enough space, the file is in the wrong format, etc.
- The DP-01 reads the file from the FAT partition into the track, and the start of the file is at the "zero" position in the song.
- Once the file has been read into the track, it can be edited (moved, copied, etc.) like any other recorded track. See "About track editing" on page 46.

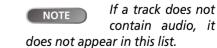
### **Exporting tracks**

Any track can be exported as a mono, 16-bit 44.1 kHz WAV format file.

- **1** Press MENU and select the WAVE menu.
- 2 Select the EXPORT TRACK action and press the ► key. The display shows a list of suggested file names, based on the song tracks which contain audio:

	Е	Х	Ρ	0	R	Т		Т	R	Α	С	К	
∲		Т	R	Α	С	К	0	0	1				
		Т	R	Α	С	К	0	0	2				
		Т	R	Α	С	К	0	0	6				Ŧ

**NOTE** Although shorter filenames are shown with spaces on the DP-01 display, the actual filenames on disk do not contain these spaces.



NOTE Make sure the target track is an empty track.

## Using the USB connection

**3** Use the wheel to highlight a track, and the INSERT key to mark it for export.

A check mark  $(\checkmark)$  appears by the song title if it is marked for export.

De-select a track by moving the cursor to it, and pressing SHIFT + INSERT (DELETE). The check mark disappears.

• When the cursor is by a track, you can press SHIFT and MENU to bring up a titling screen:

I FILE NAME I I [TRACK001] I

- Edit the name, and press ENTER when the name is complete.
- 4 When all tracks for export have been selected, press ENTER.

		Е	Х	Ρ	0	R	Т		Т	R	Α	С	К		
	F	r	e	e			:	4	7	8	9		М	В	
	Т	o	t	a	1		:		4	0	2		М	В	
	С	Ε	Ν	Т	Е	R	]			$\geq$		Е	×	е	

The display shows the free space on the FAT partition (the destination of the exported tracks) and the space which the exported tracks will occupy.

**5** Press ENTER to export the selected tracks.

The tracks are exported with the names you entered (a .WAV extension is added). If you already have exported a track file with the same name as one you have chosen, a message appears asking you if you want to overwrite the older file.

- 6 Connect the DP-01 to the computer and "open" the drive (""Open" and "Close"" on page 41).
- 7 Use the PC operating system to copy or move the exported tracks from the WAVE directory of the DP-01 FAT partition to the PC.
  - Once the tracks are on the PC, you can "close" the DP-01.
  - The exported tracks on the PC can then be backed up to CD-R, etc.
    - You can rename the exported tracks on the PC, but you should remember to keep to the "8.3" standard and the .WAV extension and remember to keep the characters simple (no accented characters or "odd" punctuation, etc.).

You can import them later to the same DP-01 or to a friend's DP-01.

### Exporting the mastered stereo tracks

When you have finished mastering (see "Mastering" on page 24), you may want to save the mastered stereo mix, otherwise it will be overwritten when you next perform a mastering operation.

Before you start this operation, make sure you have loaded the song whose mastered mix you will be exporting (and that it does indeed contain a stereo mastered mix!).

- **1** Press MENU and select the WAVE menu.
- 2 Select the EXPORT MSTR. action and press the ► key. The display shows a default file name for you to edit:

 		Е	Х	Ρ	0	R	Т		М	S	Т	R		
F	i	1	e		C	М	Ι	Х	S	Т	0	0	1	]
С	Ε	Ν	т	Ε	R	]			>		Ε	×	e	

- **3** Use the left and right cursor keys and the wheel to name the exported mastered stereo mix.
- **4** When you're done, press ENTER to export the mastered stereo mix (as a single 16-bit 44.1 kHz stereo WAV file).
- The file is exported with the name you just entered, and a .WAV extension.
- 5 Connect the DP-01 to the computer and "open" the drive (""Open" and "Close"" on page 41).
- **6** Use the PC operating system to copy or move the exported mastered mix file or files from the WAVE directory of the DP-01 FAT partition to the PC.
- Once the file or files are on the PC, you can "close" the DP-01.

If there is no mastered mix, the display will show a message.

**NOTE** Press **EXIT** if you want to cancel the export operation.

## About track editing

One of the most useful features of a disk-based recorder such as the DP-01 is the ability to edit material easily. When working with a stereo tape recorder in the past, editing was not an easy process, and was very difficult to undo if there were any mistakes, and multi-track editing was nearly impossible!

The DP-01 allows you to edit songs, copying and moving material from one part of a song to another. This editing is known as *non-destructive editing*, meaning that the operation does not actually destroy data, and you can undo mistaken editing operations easily.

If you have ever used a word-processor on a computer, you will probably find most of the DP-01's editing operations pretty simple. If you have never used a computer, the DP-01's editing operations are nothing to be scared about—just read through this section to see how it all works.

these editing operations described here (see "Undoing operations" on page 50). Even if you delete all the material on every track using these functions, you can still get it back with only a few key-presses.

You can

undo

### IN, OUT and TO

We have previously seen how the IN and OUT points can be used for punching and for location. They are also used in these track editing operations, together with the TO point.

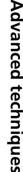
- The IN point marks the start of the part of the track which is selected when editing a part of a track (rather than a whole track).
- The OUT point marks the end of the part of the track which is selected when editing part of a track.
- The TO point marks the final destination of a copy or a move operation.

### Using edit mode

- **1** Make sure that the DP-01 is stopped (not playing back or recording).
- **2** Press the TRACK EDIT key (beside the wheel).

 		Т	R	Α	С	К		Е	D	Ι	Т		 1
С	0	Ρ	γ		Ρ	Α	S	Т	Е			∳	
С	0	Ρ	γ		Ι	Ν	S	Е	R	Т		:	
Μ	Ο	Ų	Е		Ρ	Α	S	Т	Е			:	

- **4** Select the appropriate values, as described for each individual function.
- **5** Press YES to perform the operation, or NO to exit without performing the operation.



NOTE

### **Track editing functions**

The track editing functions available on the DP-01 are:

- COPY->PASTE
- COPY->INSERT
- MOVE->PASTE
- MOVE->INSERT
- OPEN
- CUT
- SILENCE
- CLONE TRACK
- CLEAN OUT

### COPY -> PASTE

This function takes the section of a track or tracks marked by the IN and OUT points, copies it, and places it at the TO point on the chosen track or tracks.

The original source is left unchanged.

The copy operation overwrites anything which is already recorded at the destination. The destination is the same length as it was before the operation.

You can copy the section more than once in one operation.

### You can change the following values:

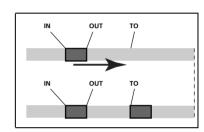


Figure 2.4: Copy and paste

**Src.Trk** This sets the source track or tracks from which the section is copied. Choose 1 through 8 to select an individual track. Choose 1/2, 3/4, 5/6 or 7/8 to select a pair of tracks. Choose 1-8 to select all tracks.

**Dst. Trk** This sets the destination track or tracks to which the selected section is pasted. What you can select here depends on what you have selected for the source track. If you have selected a single track, you can select tracks 1 through 8 here. If you have selected a pair of tracks (for instance, 1/2), you can only select track pairs here. If you have selected all tracks (1-8), then 1-8 is the only option available to you here.

**Times** This is the number of times that the selected section is pasted into the destination track or tracks. You can set this value from 1 to 99.

Press **YES** to perform the operation or **NO** to leave this screen.

### COPY -> INSERT

This function takes the section of a track or tracks marked by the IN and OUT points, copies it, and places it on the chosen track or tracks, inserting it as new material, starting at the TO point.

The original source is left unchanged.

The insert operation adds the selected section as new material to the destination. Nothing is overwritten on the destination, as any existing material following the TO point is moved to the end of the newly-inserted section. The destination is longer than it was before the operation.

You can copy the section more than once in one operation (for example, to repeat a verse/chorus section).

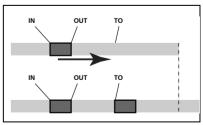


Figure 2.5: Copy and insert

## About track editing

### You can change the following values:

**Src. Trk** This sets the source track or tracks from which the section is copied. Choose 1 through 8 to select an individual track. Choose 1/2, 3/4, 5/6 or 7/8 etc. to select a pair of tracks. Choose 1-8 to select all tracks.

**Dst. Trk** This sets the destination track or tracks into which the selected section is inserted. What you can select here depends on what you have selected for the source track. If you have selected a single track, you can select tracks 1 through 8 here. If you have selected a pair of tracks (for instance, 1/2), you can only select track pairs here. If you have selected all tracks (1-8), then 1-8 is the only option available to you here.

**Times** This is the number of times that the selected section is inserted (end-to-end) in the destination track or tracks. You can set this value from 1 to 99.

Press YES to perform the operation or NO to leave this screen.

### **MOVE -> PASTE**

This function takes the section of a track or tracks marked by the IN and OUT points, and moves it to the chosen track or tracks, starting at the TO point.

After the operation, the selected section of the source between the IN and OUT points is replaced by silence.

This operation overwrites anything which is already recorded at the destination. The destination is therefore the same length as it was before the operation.

You can change the following values:

**Src. Trk** This sets the source track or tracks from which the section is taken. Choose 1 through 8 to select an individual track. Choose 1/2, 3/4, 5/6 or 7/8 to select a pair of tracks. Choose 1-8 to select all tracks.

**Dst. Trk** This sets the destination track or tracks to which the selected section is moved. What you can select here depends on what you have selected for the source track. If you have selected a single track, you can select tracks 1 through 8 here. If you have selected a pair of tracks (for instance, 1/2), you can only select track pairs here. If you have selected all tracks (1-8), then 1-8 is the only option available to you here.

Press **YES** to perform the operation or **NO** to leave this screen.

### **MOVE -> INSERT**

This function takes the section of a track or tracks marked by the IN and OUT points, and moves it to the chosen track or tracks, inserting it as new material, starting at the TO point.

After the operation, the selected section of the source between the IN and OUT points is replaced by silence.

The insert operation adds the selected section as new material to the destination. Nothing is overwritten on the destination, as any material following the TO point is moved to the end of the newly-inserted section. The destination is therefore longer than it was before the operation.

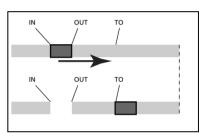


Figure 2.6: Move and paste

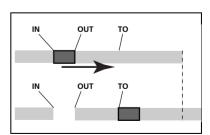


Figure 2.7: Move and insert

### • You can change the following values:

**Src. Trk** This sets the source track or tracks from which the section is taken. Choose 1 through 8 to select an individual track. Choose 1/2, 3/4, 5/6, 7/8 to select a pair of tracks. Choose 1-8 to select all tracks.

**Dst. Trk** This sets the destination track or tracks into which the selected section is inserted. What you can select here depends on what you have selected for the source track. If you have selected a single track, you can select tracks 1 through 8 here. If you have selected a pair of tracks (for instance, 1/2), you can only select track pairs here. If you have selected all tracks (1-8), then this is the only option available to you here.

Press YES to perform the operation or NO to leave this screen.

### OPEN

This function "opens up" a silent gap between the IN and OUT points on the chosen track or tracks.

The source and destination are the same, and after the operation, the track is split at the IN point, with the material which followed the IN point now moved to follow the OUT point. The result is therefore longer than the original.

There is only one value that you can change:

**Src. Trk** Select an individual track (1 through 8), a pair of tracks (1/2, 3/4, 5/6, 7/8), all of the tracks (1-8) or all tracks (ALL).

Press **YES** to perform the operation or **NO** to leave this screen.

### CUT

This function deletes the material between the IN and OUT points on the chosen track or tracks and "closes up" the gap.

The source and destination are the same, and after the operation, the material which followed the OUT point now moved to follow the IN point. Material which was between the IN and OUT points is deleted. The result is therefore shorter than the original.

There is only one value that you can change:

**Src. Trk** Select an individual track (1 through 8), a pair of tracks (1/2, 3/4, 5/6, 7/8), all of the tracks (1-8) or all tracks (ALL).

Press **YES** to perform the operation or **NO** to leave this screen.

### SILENCE

This function is equivalent to recording silence between the IN and OUT points on the chosen track or tracks.

Material is deleted, but the length of the result is the same as that of the original (the gap is not closed up, unlike with the CUT function).

There is only one value that you can change:

**Src. Trk** Select an individual track (1 through 8), a pair of tracks (1/2, 3/4, 5/6, 7/8), or all the tracks (1-8).

Press **YES** to perform the operation or **NO** to leave this screen.

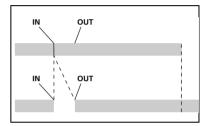


Figure 2.8: Opening a gap

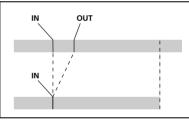


Figure 2.9: Cutting material

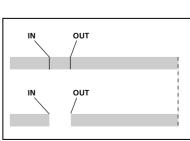


Figure 2.10: Inserting silence

About track editing

## About track editing

### **CLONE TRACK**

This copies a track or pair of tracks to another track or pair of tracks. The IN and OUT points do not have any meaning here.

There are two values that you can change:

Src. Trk Select an individual track (1 through 8), a pair of tracks (1/2, 3/4, 5/6, 7/8) or the MASTER stereo track.

**Dst. Trk** This sets the destination track or tracks to which the source track is cloned. What you can select here depends on what you have selected for the source track. If you have selected a single track, you can select tracks 1 through 8 here. If you have selected a pair of tracks (for instance, 1/2), you can only select track pairs here.

Press **YES** to perform the operation or **NO** to leave this screen.



Although you cannot mix the inputs to the STEREO MIX to the mixed master track, you can add a drum machine (say) to the mix in the following way:

- Mix down to the mix master track, using the EFFECT SEND and EFFECT RETURN ("Mixdown and mastering" on page 23) to add reverb to your mix.
- Clone the stereo mix to a pair of tracks.
- Disconnect the drum machine from the STEREO MIX and connect it to the **RETURN** jacks. Make sure that it is set up to be synchronized to the DP-01 ("Working with MIDI" on page 35).
- Mix down again with only the two cloned tracks, using the EFFECT **RETURN** control to add and adjust the level of the drum machine. You then have a mix including the drum machine as well as the effect added to the main tracks.

### **CLEAN OUT**

This deletes all the material in a track or tracks. The IN and OUT points do not have any meaning here.

There is only one value that you can change:

Src. Trk Select an individual track (1 through 8), a pair of tracks (1/2, 3/4, 5/6, 7/8), or all the tracks (1-8).

Press **YES** to perform the operation or **NO** to leave this screen.

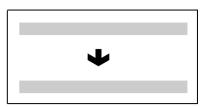
### Undoing operations

If you have made a mistake on the DP-01, very often you can undo it! This includes the track editing operations described here, as well as most other common operations you can perform (including recording).

Press the UNDO key briefly, to undo the last undoable action.

Press and hold the UNDO key for about a second, to show the UNDO/ REDO screen:

		U	Ν	D	0		/		R	Е	D	0	-
	С	0	Ρ	γ		Ρ	Α	S	Т	Е		←	2
•	R	Е	С	0	R	D	Ι	Ν	G				1
		S	Т	Α	R	Т		U	Ρ				0





NOTE

If you try to select the same track as a

destination that you have selected as the source, when you press the YES key, a message will appear.

$\bullet$

Figure 2.12: Cleaning out a track

NOTE

You must have performed at least

one undoable action after switching on for the undo function to work!

<sup>01</sup> 

Event numbering starts at 0—START UP at the bottom of the history list (you can't undo this!)

The top line is the most recent event.

When you undo, you undo the action pointed to by the cursor (\*) and all actions after it. You can't undo just one action in the middle of the history list.

- Use the wheel to scroll up and down through the list until you come to the action you want to undo (together with all the actions that have been done since then).
- Press ENTER to leave the list, and the status of the DP-01 changes to the status that it had immediately after the highlighted operation in the list was performed.

Note that the actions above the undo point do not disappear, and that an arrow symbol appears to the right of the undo point.

**Redoing an action** If you make a mistake undoing an action, you can undo the undo (that is, you redo the action).

- Press and hold the SHIFT key and press the UNDO (REDO) key to redo the last undone action.

or

Press and hold the UNDO key (no SHIFT) to bring up the the <code>UNDO/REDO</code> screen:

		U	Ν	D	0		/		R	Е	D	O	
	С	0	Ρ	γ		Ρ	Α	S	Т	Е		←	2
∳	R	Е	С	0	R	D	Ι	Ν	G				1
		S	Т	Α	R	Т		U	Ρ				0

You can scroll down to the position marked by the left-pointing arrow (to the right of the list), which marks the furthest point in the history at which you can perform a redo operation.

Press ENTER to redo the selected undone actions.

**NOTE** In order to redo an action, you must have undone an action first!

### Troubleshooting

When working with any new piece of equipment like the DP-01, it's sometimes difficult to work out why something isn't happening the way you expect. The main thing is to take your time—after all, you're not paying hourly studio rates! Stop and think. Ask yourself questions, like the ones below, and you can usually find the answer.

Also, see the section on "Messages" on page 53 for the meaning of messages that may pop up on the display.

Why can't I hear any sound when I play back? Are the faders of the tracks you've recorded at a reasonable level?

Is the MASTER fader at a reasonable level?

Have you connected the LINE OUTPUT jacks to the right part of your monitoring system, and is your monitoring system set up correctly?

Is a track muted (MUTE indicator lit)? Press SHIFT and the REC key to un-mute it.

If you're monitoring through headphones, is the **PHONES** control turned to a suitable level?

## Why does the sound I'm recording sound distorted? Is the input level control on the front of the DP-01 set appropriately for the input source?

If you're recording an acoustic instrument, are you sure you're not sending it through an electric guitar effect (DP-01FX only)?

Are you listening at too high a volume? Is it your monitoring system that's distorting?

### Why can't l record? You must have at least one track armed (REC indicator flashing) before you can use the RECORD key.

Are inputs assigned to tracks (see "Assigning inputs" on page 20)?

If you're in a menu, etc., recording may not be possible. Return to the "home" screen.

## Why can't my computer "see" the DP-01 files? Make sure the DP-01 is connected to a USB port and "open" (see ""Open" and "Close"" on page 41).

The computer can't see files which are in the "native" partitions. Back up or export songs, tracks and mixes to the FAT partition ("Using the USB connection" on page 40) before "opening" the USB connection, so that the files can be read on a computer.

### Why can't I hear the selected effect (DP-01FX only)? You

must turn on the effect for the appropriate input (MULTI) or turn on the effect (REVERB).

For the reverb, you must turn up at least one track's EFFECT SEND, together with the master EFFECT RETURN.

The volume of a multi-effect may need adjusting or the parameter is set so low that the effect is too subtle to be noticed ("Multi-effect" on page 60).

### Messages

The following popup messages alert you to conditions that may arise while you are using the DP-01. Consult this table if you see something you don't understand:

Empty Export Track	You're trying to export a track ("Importing and exporting tracks" on page 43) which doesn't have anything recorded on it. Pick another track to export.
File Not Found	You're trying to restore a song when there are no backed-up songs on the partition ("Backing up and restoring songs" on page 41)—maybe you hit the ► key by mistake, or you may want to change the partition ("Selecting the active partition" on page 36).
I-O Too Short	You are trying to enter repeat mode, but the time between the IN and OUT points is too short. Make the time longer.
Import File Not Found	You're trying to import a WAV file from the FAT partition when there aren't any WAV files there ("Importing a track" on page 43). Connect the DP-01 to a PC and transfer some files to the FAT partition for import.
Import File Too Big	You're trying to import a WAV file from the FAT partition that is too big for the remaining space on the partition. Free up some space on the (native) partition and try again.
In Bounce Mode	You tried to undo an action ("Undoing operations" on page 50) while in bounce mode ("Bouncing" on page 31). Other actions may also produce this message.
In Master Mode	You tried to undo an action ("Undoing operations" on page 50) while in mastering mode ("Mixdown and mastering" on page 23). Other actions may also produce this message.
In Punch Mode	You pressed the <b>FF</b> key in auto punch mode ("Punching" on page 29). Other actions may also produce this message.
In Repeat Mode	You're trying to enter the menu system, set the IN and OUT points, etc. while the <b>REPEAT</b> indicator is lit. Turn off repeat and try again. Other actions may also produce this message.
Mark Full	You tried to store more than 999 location marks in a song ("Location marks" on page 25). delete some location marks and try again.
Master Track Not Found	You've tried to export a mastered mix track ("Exporting the mastered stereo tracks" on page 45) when the song doesn't have one. Master the song and then export the mix.
Master Track Too Big	You tried to export a master track which was too big for the remaining space on the FAT par- tition ("Exporting the mastered stereo tracks" on page 45). connect the DP-01 to a computer and free up some space on the FAT partition.
No Armed Track	You're trying to set up auto-punching with no tracks armed ("Punching" on page 29). Arm a track or tracks and try again.
No Disk Space	You'll see this message if you try to create a song, but there's not enough space on the partition to create a song ("Creating a new song" on page 17). Free up some space and try again.
No Locate Mark	You're trying to edit the location mark list ("To edit a location mark" on page 26) when no location marks have been set.
No Master Trk	You've tried to use a non-existent master track as the source in a track cloning operation ("CLONE TRACK" on page 50). Select another source or master the song and try again.
No Redo Histry	There's nothing for you to redo (nothing's been undone). See "Undoing operations" on page 50.
No Song	You're trying to load a song from a partition that has no songs on it ("Loading a saved song" on page 18). Change partitions ("Selecting the active partition" on page 36).
No Undo Histry	No actions to be undone. See "Undoing operations" on page 50.
Not Stopped	The transport is moving (not stopped, but playing back, recording, etc.) and you've pressed a key such as the <b>BOUNCE</b> key which cannot be used until you press <b>STOP</b> .

## Troubleshooting

Now Recording	You're trying to do a menu operation while recording is going on. Other actions may also pro- duce this message.
Same Track	You can't clone a track to itself! "CLONE TRACK" on page 50
Song Protected	The song is protected ("Protecting a song" on page 39) and you are trying to change it (record or edit, etc.). Unprotect the song.
Too Many Songs	You have 250 songs on one partition. You must delete some before you can create another song.
Track Full	You're trying to import a file from the FAT partition to a track that already has recording on it ("Importing a track" on page 43). You can only import to a blank track.
Trk too short	You're trying to master with the OUT point at the zero position ("Mixdown and mastering" on page 23). Set the OUT point ("IN and OUT marks" on page 26) and try again.

## Specifications

### Analog specifications

INPUTs (A and B)	1/4" phone (unbalanced)	XLR balanced (DP-01FX only)
Input impedance	> 10k $\Omega$ (max), or 1 M $\Omega$ ( <b>A</b> only) with switch in <b>GUITAR</b> position	2.4kΩ
Nominal input level	-10 dBV	–8dBu
Maximum input level	+6 dBV	+8 dBu
EFFECT RETURN	2 x 1/4" phone (unbalanced)	
Input impedance	10kΩ	
Nominal input level	-10dBV	
Maximum input level	+6 dBV	
STEREO MIX	2 x 1/4" phone (unbalanced)	
Input impedance	10kΩ	
Nominal input level	-10dBV	
Maximum input level	+6dBV	
LINE OUTPUT	2 x unbalanced RCA (pin) jacks	
Output impedance	1kΩ	
Nominal output level	-10 dBV	
Maximum output level	+6dBV	
EFFECT SEND	1 x 1/4" phone (unbalanced)	
Output impedance	1 kΩ	
Nominal output level	-10 dBV	
Maximum output level	+6 dBV	
PHONES	1/4" stereo jack	
Maximum output	30mW + 30mW (into 30Ω)	

### **Digital specifications**

DIGITAL OUT	Optical digital audio output (TOSLINK)	
Data format	S/PDIF 1	

### Audio performance

Frequency response	20 Hz — 20 kHz, +1 dB/-3 dB
Signal-to-noise ratio	> 85dB (A-weighting, 22kHz LPF)
Total harmonic distortion	< 0.05% (1 kHz, –10 dBV, 22 kHz LPF, <b>MASTER</b> fader at nominal)

## **Specifications**

### **Physical characteristics**

External power adapter AC input	100 — 240 V AC, 50/60 Hz							
External power adapter output	12V							
External power adapter output current	2.5A							
Power consumption	15W							
External dimensions (w x h x d)	452 x 110 x 307 (mm) 17.8" x 4.3" x 12.1"							
Weight	4.1 kg (9 lb)							

### **Dimensional drawing**

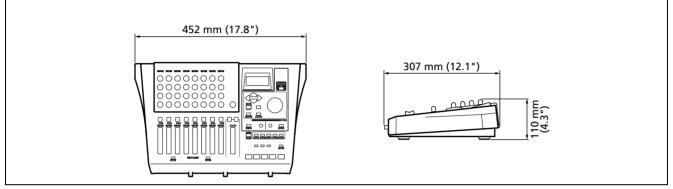


Figure 2.13: Dimensions of the DP-01

### Block diagram (DP-01FX)

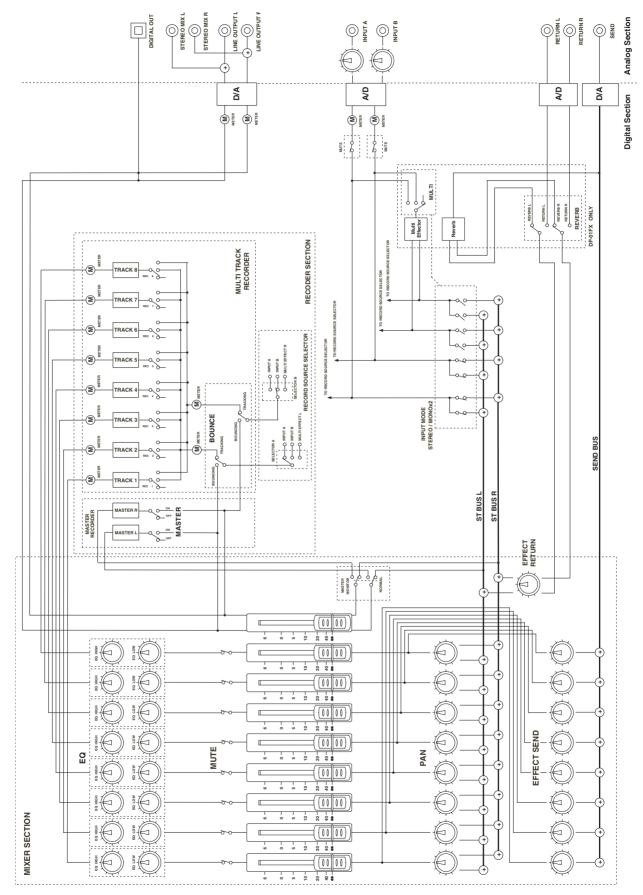


Figure 2.14: Block diagram

## 3 : DP-01FX Appendix

The DP-01FX differs from the DP-01 in a few important respects: it provides balanced XLR connectors with switchable phantom power for connecting condenser microphones, there is a built-in guitar/bass tuner, it provides a multiprocessor for the input signals, and noise reduction, and also provides a reverb effect for the mixdown process.

### Balanced XLR inputs

These inputs enable you to connect condenser microphones (the same type as those used in professional recording studios).

The +48V phantom power supply allows you to power condenser microphones. Without such phantom power, many condenser microphones will not work. Some, however, can use internal batteries.

Consult any documentation that came with your microphones for full details of power requirements, etc.

### Phantom power

The **PHANTOM** switch can be turned **ON** or **OFF** to supply +48V phantom power to the XLR connectors. It is never supplied to the 1/4" packs.

### Input level controls

With most microphones, these should be turned clockwise, as for microphones connected to the 1/4° jacks.

However, some microphones are more powerful than others, and you may need to turn down the control to prevent overloading.

### **Tuning a guitar**

The built-in tuner allows you to tune a guitar or bass connected to input **A**. You can't tune instruments connected to input **B** in this way.

Press the MULTI key and the REVERB key together:

					Т	u	n	е	r	 		
С	a	1	:	4	4	0	Н	Z				
		I					Π				I	

Play a single string. The DP-01FX makes its "best guess" at the note, shows the value and provides an indication of whether it's sharp or flat. This is a very flat F#:

					Т	и	n	e	r	 		
С	ā	1	:	4	4	0	Н	Z				
							F	#				
		I					Ο				I	

**NOTE** *These XLR inputs are wired with these pin assignments: 1=ground, 2=hot, 3=cold.* 

WARNING

Never connect or disconnect micro-

phones to or from the XLR connectors with the phantom power turned on.

Never turn the phantom power on when unbalanced dynamic microphones are plugged into the XLR connectors. • The line of symbols on either side of the square gets shorter as the played note approaches the "target" and the center square fills when the string is in tune:



**Changing the tuning** Most instruments are tuned with A=440 Hz. If you are playing with another instrument that cannot be tuned, you may want to change this value, but typically there is no need.

• Use the wheel to change the reference tuning away from 440 Hz if you need to do this.

### **Noise reduction**

When you are recording, the background noise of microphones, or the noise from guitar amplifiers, etc. may cause problems. The DP-01FX allows you to "gate" this noise, and only open the gate when the input signal goes over a certain level. This only takes effect when the **MULTI** effect is enabled.

- **1** Press MENU, and then select the PREFERENCE menu.
- 2 Use the arrow keys to scroll to NSP:

 -														
 		Ρ	R	Е	F	Е	R	Е	Ν	С	Е			I
Ρ	o	s	t.			:		1		5	S	e	C	
Е	Q		F	R	Q	:								
Ν	S	Ρ				٦		1	0					.æ.

**3** Set the level at which the gate opens to a value from OFF (the gate is always open) through 1 (the gate will open easily, with very quiet sounds) to 60 (a lot of force—quite loud sounds—is needed to open the gate).

Using a noise gate like this sometimes requires a little work to make sure that you don't accidentally cut off quiet parts of a song. Before you make a recording using the noise gate, it's a good idea to rehearse the whole part to make sure you've got the right gate level.

### **Multi-effect**

The DP-01FX contains an input effector, which contains different types of effect, grouped by the type of input (electric guitar, acoustic guitar, vocals, etc.) that they are suitable for.



Figure 3.1: Effect controls

### Assigning the effect

Although there are two inputs, the multi-effect can only drive one of them at a time.

The multi-effect produces a stereo output, so you can assign the output to two tracks (see "Assigning inputs" on page 20).

Press and hold the SHIFT key and press the MULTI key so that either the A or B indicator lights, showing the input which will use the multi-effect.

There is a third setting in which neither indicator is lit, showing that the multi-effect is not in use on either effect.

### Selecting the effect type

Press the MULTI key alone to bring up the multi-effect selection and editing screen:

		М	U	L	Т	Ι		Е	F	F	Е	С	Т	
		<		Т	r	a	D	i	s	t.			$\geq$	
						Е	G	Т	R					
Ρ	Α	R	:		8	3		Ų	0	L	:	1	0	0

Press and hold the SHIFT key and turn the TYPE control to scroll through the different effect types available:

EGTR	Electric guitar
AGTR	Acoustic guitar
BASS	Bass guitar
VOCAL	Vocals
DRUM	Drums and percussion

The effect (third line of the display) also changes as you change the type, and so does the parameter value.

### Selecting the effect

Turn the TYPE control to scroll through all available effects (including those in other effect types. Effects available are given in ("Available multi-effect settings" on page 61.

### Setting the parameter

- Each multi-effect has one parameter (shown as PAR).
- Use the **PARAMETER** control to set the value of the parameter (the parameter which is changed and the range of values differ according to the selected effect).

### Setting the effect volume

• Set the volume of the effect from 0 to 127 by pressing the SHIFT key and turning the PARAMETER control.

### Available multi-effect settings

This list is divided into the available effect types

### Electric guitar settings (EGTR)

•		
TraDist	Traditional distortion and doubling with a short delay	
Tube OD	Tube (valve) overdrive and vibrato	
BlueDrv	Blues overdrive with an auto-wah. Use short picking strokes with this setting	
BlueSlid	Blues with a right and left tremelo	
R.Bottom	80's heavy rock sound	
ClsRock1	A classic 70's British stack sound	
ClsRock2	A deeper classic sound with a detuned chorus effect	
MelSus	Mellow sustain setting with longish sustain. Use this with a front humbucker for a sweet drive sound	
SmthDist	Smooth distortion for solos, using echo with an overdrive sound	
SpeeKing	Single-coil pickup distortion	
Heavy1	Distorted "tube"-type sound for heavy rock	
Heavy2	Fuzz and flange for a heavy feel	
Heavy3	Chorus and distortion	
Metal	Traditional metal sound (twin lead)	
80sRock1	80's metal with a cutting edge	
80sRock2	Deeper echo and a high cut with distortion	
90sRock	Bright distortion and reverb; good for solo use	
FstChor	Good with a single-coil pickup for chords and arpeggios. Similar to acoustic.	
CompChr1	For single-coil pickups - chorus with pre-delay expands the treble-emphasized sound	
CompChr2	A good backing sound	
Rhythm1	A backing sound with an edge to it	
Rhythm2	Smooth backing sound, suitable for jazz	
Rhythm3	A harder backing sound	
Funk	A "feather" effect for funk/fusion backing	
Groove	Flanger provides a rolling sound for backing, and arpeggio playing	
Country	Short echo and compression	
Crying	Very emotional — use at different volumes for a variety of effects	
Weeping	Overdrive with a "big heart"	
Fusion1	Sweet sustained overdrive	
Fusion2	Long delay and bright distortion	
CInSolo	Long sustained solos are possible with this sound	
PwrDist1	A tube settingwith echo	
PwrDist2	A deep chorused distortion for an American rock sound	
PwrDist3	A rough, metal distortion sound	
PwrDist4	Doubled distortion with an edge	
Texas1	The classic "black panel amp" sound	
Texas2	A powerful overdriven sound	
Texas3	A sharper overdrive sound	
Texas4	Chorus and "stretched" overdrive	

## **Multi-effect**

Swingy	Mid-peaking warm sound	
FatJazz1	Use on jazz pieces with breaks	
FatJazz2	Compressed "fat" jazz setting	
R&B	High emphasis with a rough sound	
ClnVerb	Clear long sustained sound	
CtyBlues	Fat-sounding overdrive	
LtlWing	Bright crunch sound	
CoolPick	3D sound with some "feathering" on the crunch	
Fuzzy	A fuzzy deepened sound	
Hazy	No matter what color it is, it's still hazy (use with a single-coil pickup)	
BritCln	The traditional British clean sound	
PowChord	Distorted backing power chord setting	
BmLead	A special lead sound with pitch shift of a seventh and distortion	
FIngGtr	Treble overdrive and a "jet" flanger	
Oct.Dist	One octave down split distortion	
PhaseRev	Phase and reverb for backing	
Ensemble	3D chorus effect — good with single-coil pickups	
Surf	Suitable for West Coast surf	
Violin	Smooth attack — nice with a humbucker	
BlkPanel	A famous tube combo with spring reverb	
UK Stack	Maybe the most famous stack in the world	
Jimi Box	There was only one Jimi and his distorted sound was something like this	
MBoogie	Famous combo sounds	
HeartBrk	Tube stack at low gain	
GentWeep	Chorus and distortion—great for a "crying" solo	
Bfinger	Distortion and retuned chorus. Good for finger-style playing	
Tweed	Tweed-covered amp sound — use with the front single-coil pickup and blues	
RSCrunch	A warm "crunch" guitar setting for single-coil	
NightDrv	A deeper shade of purple. Single-coil sounds good here	
Ult.Funk	Ultimate funky cutting sound	
Axe Bom	Heavy metal with a doubling edge	
Doctor	Wah-wah pedal halfway down	
Sold No	Simulated high-quality tube amp	
Run Away	Play a cutting sound using a pick	
Remains	Double-neck 12-string sound	
Nostalgi	Tube-based overdrive	
RealDst1	Distortion only, influenced by a large stack	
RealDst2	Distortion only, influenced by a famous small combo	
RealDst3	Power tube distortion sound	
RealDst4	Distortion only, influenced by echo on a smaller combo	

### Acoustic guitar settings (AGTR)

Heaven	Reverb with treble boost for a spacious feel
Stroke	Echo and chorus—good for backing
Solo	For acoustic solos
Blues	For acoustic blues slide work

Arpeggio	Acoustic picked arpeggios sound good with this setting
12String	12-string guitar sound (chorus and exciter)
Crystal	A crystal-clear sound, emphasizing the treble, and making the best of a not-so-good guitar
Nashvill	For that Nashville sound ("fat" acoustic)
Mellow	A mellow acoustic setting—simulates nylon guitar on steel strings, using a treble cut
ChorVib	A "thick" vibrato chorus sound
TremSolo	A stereo tremolo solo sound

### Bass guitar settings (BASS) These sound best with bass instruments-

other sources may not give such a good effect.

Miller	Flanger—good for "chopper" bass
Singing	A "singing" bass tone (chorus and distortion). Progressive sound
Fretless	A fretless bass sound
Chopper	Useful for slap-style playing
Heavy	For heavy rock, etc. Distortion adds depth to the sound
Peculiar	A warm bass sound
RockBass	Distorted pick-bass setting with emphasized treble

### Vocal settings (VOCAL)

Do Focor	Demovies sibilance (ass) counds
De-Esser	Removes sibilance (ess) sounds
Chorist	Choir sound using detuning
Emphasis	Adds emphasis to vocals to make them stand out
Shout	For loud distorted vocals
Moody	Moody feeling for quieter smooth vocal lines
Response	Echo vocal setting
Proclaim	"Echo plus" — a distinctive sound
Quiverin	A quavering voice with vibrato
Duet	For two (male and female) singers and harmony groups
Lo-Fi	Imitates low-fidelity equipment (high and low treated specially)
Megaphon	For "megaphone"-type sound
Screamin	Screaming sound using flanger
Panning	A panned stereo vocal sound

### **Drum settings** (DRUM) These sound good with rhythm machines, etc.

Groove	A groove setting with flanger
Stepping	Stepping beat — delay with a small amount of feedback
TrnAroun	Stereo "bouncing" setting
GetSpace	Drum reverb
CsBottom	Classic "bass heavy" sound
Trem.Pad	Another stereo bounce setting
PerfrmEQ	Echo and pan
Lo-Fi	Low fidelity for drums
Reverb	Reverberation only
Comp.	Compressor only
Vibrato	A vibrato effect
Filter	A creative low-pass filter effect

### Reverb

The reverb effect is available as an alternative to the external SEND/RETURN loop with an external effect processor (see "Effect processor" on page 15). You cannot use both together.

### Turning the reverb on and off

• Press and hold the SHIFT key and press the REVERB key to turn the reverb on (the indicator lights) and off (the indicator is unlit).

### Using the reverb

When the reverb is on, the mixer EFFECT SEND controls and the EFFECT RETURN control affect the amount of signal sent to the internal reverb from the tracks, and returned from the internal reverb unit to the stereo mix.

When the reverb is turned off, the mixer EFFECT SEND controls and the EFFECT RETURN control affect the amount of signal sent to the SEND jack from the tracks, and returned to the stereo mix from the RETURN jacks.

### Setting the reverb type

Bring up the reverb screen by pressing the **REVERB** key:

---- REVERB ----Hall : 2.7sec

• Turn the TYPE control to select one of the different "flavors" of reverb: Hall, Room, Live or Studio. Each of these settings has a different quality and character.

### Setting the reverb time

With the reverb screen displayed, simply turn the **PARAMETER** control to change the time the reverb sound takes to die away, from 0.1 seconds to 5.0 seconds in 0.1 second steps.



"Reverb" is short for "reverbera-

tion"—the sound produced by many short echoes off the walls of rooms, etc.

### How do I..?

This section gives you a brief reminder of how to perform some operations on the DP-01 which may not be immediately obvious from looking at the panel controls.

- •
- Key names are written like this: LOCATE. SHIFT + LOCATE means "press and hold the SHIFT key and press LOCATE.
- Menu items are written like this: MENU  $\Rightarrow$  DISK  $\Rightarrow$  FORMAT, meaning "press the MENU key, select the DISK menu, and then the FORMAT action.

You may find the same action listed more than once in this alphabetical list. That's because different people use different words for the same things, so you may find both "Delete" and "Erase", for example.

The list of popup messages and their meaning ("Messages" on page 53) may also be useful to you.

How to	Keys, etc. to press	Description
Assign inputs to tracks	ASSIGN + REC	See "Assigning inputs" on page 20.
Back up a song to a PC	MENU ⇒ BACKUP ⇒ SONG BACKUP	See "Backing up and restoring songs" on page 41.
Bounce tracks	BOUNCE	See "Bouncing" on page 31.
Change the display between minutes/ seconds and bar/beat	Wheel from "home screen"	See "Working in bars & beats" on page 33.
Change the EQ frequencies	$\textbf{MENU} \Rightarrow \textsf{PREFERENCE} \Rightarrow \textsf{EQ FREQ}$	See "EQ settings" on page 28.
Choose another disk partition as the active partition	MENU ⇔ DISK ⇔ PARTITION	See "Selecting the active partition" on page 36.
Choose the meter shape	$\textbf{MENU} \Rightarrow \textsf{PREFERENCE} \Rightarrow \textsf{Meter}$	See "Using the meters" on page 27.
Connect the DP-01 to a PC	MENU ⇔ DISK ⇔ USB OPN/CLS	See "Using the USB connection" on page 40.
Copy a song	MENU ⇒ SONG ⇒ COPY	See "Copying songs" on page 38.
Copy and insert parts of a track	TRACK EDIT ⇒ COPY INSERT	See "COPY -> INSERT" on page 47.
Copy and paste parts of a track	<b>TRACK EDIT</b> ⇒ COPY PASTE	See "COPY -> PASTE" on page 47.
Create a new song	MENU ⇒ SONG ⇒ CREATE	See "Creating a new song" on page 17.
Cut and close up part of a track	TRACK EDIT ⇔ CUT	See "CUT" on page 49.
Delete a song	$\textbf{MENU} \Rightarrow \text{SONG} \Rightarrow \text{ERASE}$	See "Erasing a song" on page 18.
Delete unused song data	$\textbf{MENU} \Rightarrow \text{SONG} \Rightarrow \text{DEL/UNUSED}$	See "Deleting unused data" on page 38.
Display the current partition	From the home screen, press and hold <b>EXIT</b>	"Song information" on page 19
Edit the IN and OUT and TO points	POINT EDIT (SHIFT + TRACK EDIT)	See "IN and OUT marks" on page 26.
Edit the location marks	Press and hold LOCATE	See "Location marks" on page 25.
Erase a song	MENU ⇒ SONG ⇒ ERASE	See "Erasing a song" on page 18.
Erase the whole of a track	TRACK EDIT ⇒ CLEAN OUT	See "CLEAN OUT" on page 50.
Export a stereo mix to PC	MENU ⇔ WAVE ⇔ EXPORT MSTR.	See "Exporting the mastered stereo tracks" on page 45.
Export a track's contents to PC	$\textbf{MENU} \Rightarrow \textbf{WAVE} \Rightarrow \textbf{EXPORT TRACK}$	See "Exporting tracks" on page 43.
Find out how much time is left for re- cording	From the home screen, press and hold <b>EXIT</b>	"Song information" on page 19
Format one partition	MENU ⇒ DISK ⇒ REFORM	See "Formatting a partition (Reform)" or page 37.

## How do I..?

How to	Keys, etc. to press	Description
Format the disk	MENU ⇔ DISK ⇔ FORMAT	See "Formatting a disk" on page 36.
Format the FAT partition	MENU ⇔ DISK ⇔ FAT REFORM	See "Formatting the FAT partition" on page 37.
Hands-free recording	AUTO PUNCH, RHSL, etc.	See "Punching" on page 29.
Import a WAV file to a track	MENU	See "Importing a track" on page 43.
Insert silence at a point in a track	TRACK EDIT ⇔ OPEN	See "OPEN" on page 49.
Jump to a location mark	Press LOCATE + FF or REW or press and hold LOCATE for the location mark list	See "Location marks" on page 25.
Jump to the IN and OUT and TO points	Press IN or OUT or TO	See "IN and OUT marks" on page 26.
Load a song	MENU ⇒ SONG ⇒ LOAD	See "Loading a saved song" on page 18.
Make an exact copy of (clone) a track	<b>TRACK EDIT</b> ⇒ CLONE TRACK	See "CLONE TRACK" on page 50.
Metronome settings	MENU ⇔ MIDI ⇔ METRONOME	See "Metronome" on page 34.
Mix to a stereo master track	MASTER	See "Mixdown and mastering" on page 23.
Move parts of a track and insert them in another location	<b>TRACK EDIT</b> ⇒ MOVE INSERT	See "MOVE -> INSERT" on page 48.
Move parts of a track to another loca- tion	<b>TRACK EDIT</b> ⇒ MOVE PASTE	See "MOVE -> PASTE" on page 48.
Multi-effect setting <sup>a</sup>	MULTI, TYPE and PARAMETER	See "Multi-effect" on page 60.
Name a song	Press SHIFT + MENU	See "Titling" on page 12.
Ping-pong to other tracks	BOUNCE	See "Bouncing" on page 31.
Protect a song	MENU ⇒ SONG ⇒ PROTECT	See "Protecting a song" on page 39.
Read a WAV file into a track	MENU	See "Importing a track" on page 43.
Redo one operation	Press SHIFT + UNDO briefly	See "Undoing operations" on page 50.
Redo several operations	Press and hold <b>UNDO</b>	See "Undoing operations" on page 50.
Remove a section of a track and re- place it with silence	TRACK EDIT ⇔ SILENCE	See "SILENCE" on page 49.
Restore a song from a PC	MENU ⇒ BACKUP ⇒ SONG RESTORE	See "Backing up and restoring songs" on page 41.
Reverb setting <sup>a</sup>	REVERB, TYPE and PARAMETER	See "Reverb" on page 64.
Revert to a previously saved version of a song	MENU ⇔ SONG ⇔ REVERT	See "Reverting to last version" on page 18.
Route inputs to tracks	ASSIGN and REC	See "Assigning inputs" on page 20.
Save a song	$\textbf{MENU} \Rightarrow \texttt{SONG} \Rightarrow \texttt{SAVE}$	See "Storing songs" on page 17.
Save a stereo mix to PC	<b>MENU</b> ⇒ WAVE ⇒ EXPORT MSTR.	See "Exporting the mastered stereo tracks" on page 45.
Save a track's contents to PC	$\textbf{MENU} \Leftrightarrow \textbf{WAVE} \Leftrightarrow \textbf{EXPORT TRACK}$	See "Exporting tracks" on page 43.
Select the active disk partition	MENU ⇔ DISK ⇔ PARTITION	See "Selecting the active partition" on page 36.
Set a location mark	Press SHIFT + LOCATE, or INSERT	See "Location marks" on page 25.
Set pre-roll and post-roll times	MENU ⇔ PREFERENCE ⇔ Pre/Post	See "Pre-roll and post-roll times" on page 30.
Set the IN and OUT and TO points	Press SHIFT + IN or OUT or TO	See "IN and OUT marks" on page 26.
Set the noise reduction <sup>a</sup>	MENU ⇒ PREFERENCE ⇒ NSP	See "Noise reduction" on page 59.

How to	Keys, etc. to press	Description
Set the time signature and tempo for MIDI clock	MENU ⇔ MIDI ⇔ TEMP0/T.SIG	See "Tempo setting" on page 33.
Show the song name	From the home screen, press and hold <b>EXIT</b>	"Song information" on page 19
Synchronize another device using MIDI Timecode or MIDI clock	MENU ⇔ MIDI ⇔ GENERATOR	See "Working with MIDI" on page 35.
Trim the IN and OUT and TO points	POINT EDIT (SHIFT + TRACK EDIT)	See "IN and OUT marks" on page 26.
Tune a guitar or bass <sup>a</sup>	MULTI + REVERB	"Tuning a guitar" on page 58
Un-protect a song	MENU ⇒ SONG ⇒ PROTECT	See "Protecting a song" on page 39.
Undo one operation	Press UNDO briefly.	See "Undoing operations" on page 50.
Undo several operations at once	Press and hold <b>UNDO</b> .	See "Undoing operations" on page 50.
Use the MIDI metronome	MENU ⇔ MIDI ⇔ METRONOME	See "Metronome" on page 34.
Use the multi-effect <sup>a</sup>	MULTI, TYPE and PARAMETER	See "Multi-effect" on page 60.
Use the reverb <sup>a</sup>	REVERB, TYPE and PARAMETER	See "Reverb" on page 64.
Use the USB connection	MENU ⇔ DISK ⇔ USB OPN/CLS	See "Using the USB connection" on page 40.

a.DP-01FX only.



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