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GNX4

MULTI-MODELING RECORDING GUITAR WORKSTATION

OWNER'S MANUAL

RECORD

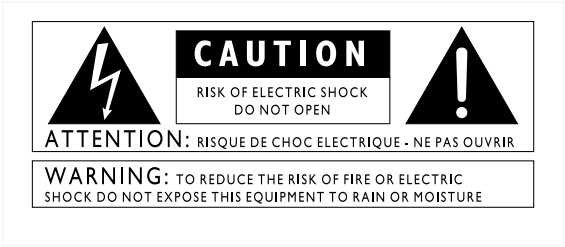
PERFORM

CREATE

PRACTICE

DigiTech
The Power to Create™

IMPORTANT SAFETY INSTRUCTIONS



The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

SAFETY INSTRUCTIONS

NOTICE FOR CUSTOMERS IF YOUR UNIT IS EQUIPPED WITH A POWER CORD.

WARNING: THIS APPLIANCE MUST BE EARTHED.

The cores in the mains lead are coloured in accordance with the following code:

GREEN and YELLOW - Earth BLUE - Neutral BROWN - Live

As colours of the cores in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The core which is coloured green and yellow must be connected to the terminal in the plug marked with the letter E, or with the earth symbol, or coloured green, or green and yellow.
- The core which is coloured blue must be connected to the terminal marked N or coloured black.
- The core which is coloured brown must be connected to the terminal marked L or coloured red.

This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. If the attachment plug needs to be changed, refer servicing to qualified service personnel who should refer to the table below. The green/yellow wire shall be connected directly to the units chassis.

CONDUCTOR		WIRE COLOR	
		Normal	Alt
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH GND	GREEN/YEL	GREEN

WARNING: If the ground is defeated, certain fault conditions in the unit or in the system to which it is connected can result in full line voltage between chassis and earth ground. Severe injury or death can then result if the chassis and earth ground are touched simultaneously.

WARNING FOR YOUR PROTECTION PLEASE READ THE FOLLOWING:

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

DO NOT USE THIS APPARATUS NEAR WATER

CLEAN ONLY WITH A DRY CLOTH.

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.

ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.

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. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

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

Refer all servicing to 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.

POWER ON/OFF SWITCH: For products provided with a power switch, the power switch DOES NOT break the connection from the mains.

MAINS DISCONNECT: The plug shall remain readily operable. For rack-mount or installation where plug is not accessible, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated into the electrical installation of the rack or building.

FOR UNITS EQUIPPED WITH EXTERNALLY ACCESSIBLE FUSE RECEPTACLE: Replace fuse with same type and rating only.

MULTIPLE-INPUT VOLTAGE: This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. Connect this equipment only to the power source indicated on the equipment rear panel. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel or equivalent.

This Equipment is intended for rack mount use only.

IMPORTANT SAFETY INSTRUCTIONS

LITHIUM BATTERY WARNING

CAUTION!

This product may contain a lithium battery. There is danger of explosion if the battery is incorrectly replaced. Replace only with an Eveready CR 2032 or equivalent. Make sure the battery is installed with the correct polarity. Discard used batteries according to manufacturer's instructions.

ADVARSEL!

Lithiumbatteri - Eksplosjonsfare. Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten. Brukt batteri returneres apparatleverandøren.

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri av samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

VAROITUS!

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

VARNING!

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

ELECTROMAGNETIC COMPATIBILITY

This unit conforms to the Product Specifications noted on the **Declaration of Conformity**. Operation is subject to the following two conditions:

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Operation of this unit within significant electromagnetic fields should be avoided.

- use only shielded interconnecting cables.

U.K. MAINS PLUG WARNING

A molded mains plug that has been cut off from the cord is unsafe. Discard the mains plug at a suitable disposal facility. NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAINS PLUG INTO A 13 AMP POWER SOCKET. Do not use the mains plug without the fuse cover in place. Replacement fuse covers can be obtained from your local retailer. Replacement fuses are 13 amps and MUST be ASTA approved to BS1362.

DECLARATION OF CONFORMITY

Manufacturer's Name: DigiTech
Manufacturer's Address: 8760 S. Sandy Parkway
Sandy, Utah 84070, USA

declares that the product:

Product name: GNX4

Note: Product name may be suffixed by the letters EU, JA, NP and UK.

Product option: all (requires Class II power adapter that conforms to the requirements of EN60065, EN60742, or equivalent.)

conforms to the following Product Specifications:

Safety: IEC 60065 (1998)

EMC: EN 55013 (1990)
EN 55020 (1991)

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 72/23/EEC and the EMC Directive 89/336/EEC as amended by Directive 93/68/EEC.

Vice-President of Engineering
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Date: March 15, 2004

European Contact: Your local DigiTech Sales and Service Office or

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Fax: (801) 568-7583

Warranty

We at **DigiTech** are very proud of our products and back-up each one we sell with the following warranty:

1. The warranty registration card must be mailed within ten days after purchase date to validate this warranty.

2. DigiTech warrants this product, when used solely within the U.S., to be free from defects in materials and workmanship under normal use and service.

3. DigiTech liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned to DigiTech WITH RETURN AUTHORIZATION, where all parts and labor will be covered up to a period of one year. A Return Authorization number may be obtained from DigiTech by telephone. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.

4. Proof-of-purchase is considered to be the burden of the consumer.

5. DigiTech reserves the right to make changes in design, or make additions to, or improvements upon this product without incurring any obligation to install the same on products previously manufactured.

6. The consumer forfeits the benefits of this warranty if the product's main assembly is opened and tampered with by anyone other than a certified DigiTech technician or, if the product is used with AC voltages outside of the range suggested by the manufacturer.

7. The foregoing is in lieu of all other warranties, expressed or implied, and DigiTech neither assumes nor authorizes any person to assume any obligation or liability in connection with the sale of this product. In no event shall DigiTech or its dealers be liable for special or consequential damages or from any delay in the performance of this warranty due to causes beyond their control.

NOTE: The information contained in this manual is subject to change at any time without notification. Some information contained in this manual may also be inaccurate due to undocumented changes in the product or operating system since this version of the manual was completed. The information contained in this version of the owner's manual supersedes all previous versions.

Table of Contents

Introduction 1
Included Items 1
Quick Start 2
Make Connections 2
Speaker Compensation 2
Apply Power 2
Select an Output Setup Mode 2
Select a Preset 2
A Guided Tour of the GNX4 3
The Front Panel 3
The Rear Panel 6

Audio Routing Setups 9
Setups Introduction 9
Output Setups and Speaker Compensation 9
Mic and Line Setups 12
Optimizing the Mic Input Level 13
Optimizing the Line Input Levels 13

Making Connections 14
For Live Performance 14
Small Club Setup (Mono Amp Rig) 14
Medium Stage Setup (Stereo Amp Rig) 14
Large Stage Setup (Stereo Amp/Cabinet Rig) 15
Talker™ Performance Setup 16
Coffee House/Solo Performance Setup 17
For Recording 18
Onboard Recorder Application 18
Computer Recording Application 19
Applying Power 20

About the GNX4 21
Presets 21
Footswitch Modes 21
Preset Mode 21
Preset Bounceback 22
Stompbox/Control Mode 22
Recorder Mode 22
Expression Pedal 22
Bypass 23
Tuner 23

GNX4 Matrix Functions 24
The GNX4 Matrix 24
Viewing/Editing GeNetX™ and
Amp Parameter Values 24
Viewing/Editing Effect Parameter Values 25
GENETX Row 26
CHAN ONE EQ and CHAN TWO EQ Rows 27
TONE Row 29

Amp/Cabinet Modeling 30
Amp Models 30
Cabinet Types 31
Editing Amp Models and Cabinet Types 31
Selecting Amp Models and Cabinet Types 32
Adjusting Amp Parameters 32
Cabinet Tuning 32
Storing Amp Parameter Edits 33
Creating HyperModels™ 33
Saving HyperModels (Amp Save) 33

Effects and Parameters 34
Editing a Preset's Effects 34
Effect Definitions 35
Preset Levels 35
Wah-Pickup 35
Compressor 35
Whammy™/IPS/Talk 36
Whammy 36
Intelligent Pitch Shifting (IPS) 37
Detune 37
Pitch Shift 37
Talker™ 37
Stomp Box Modeling 38
Noise Gate 39
Chorus/Mod Effects 39
Chorus 39
Flanger 40
Phaser 40
Triggered Flanger 40
Triggered Phaser 40
Tremolo 41
Panner 41
Vibrato 41
Rotary Speaker 41
AutoYa™ 42
YaYa™ 42
SynthTalk™ 42
Envelope Filter 42
Detune 43
Pitch Shift 43
Delay 43
Reverb 44

Expression Pedal Assignment 45
Expression Pedal 45
Expression Pedal Links 1-3 45
Wah Pedal 45
Amp Channel Footswitch 46
Control Footswitches 46
Control A, B, and C Links 46
LFOs 47
LFO Links 1-2 47
Expression Parameter Assignment List 48
Whammy™/IPS/Talker™ Effect Parameters 48
Stompbox Effect Parameters 48
Modulation Effects Parameters 49

Creating a Preset 50
Selecting a Preset 50
Create a HyperModel™ 50
Select the Channel 1 Amp and Cabinet 50
Select the Channel 2 Amp and Cabinet 50
Adjust the Channel 1 Parameters 51
Adjust the Channel 2 Parameters 51
Adjust the EQ/Tune the Cabinets 52
Warping Amp Channels Together 53

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Table of Contents

Save the HyperModel™ 53
Select Models for the Preset's Channels 54
Edit the Presets Effects 54
Select the Pickup Type 55
Turn the Compressor Off 55
Turn the Whammy™/IPS/Talker™ Off 55
Turn the Stompbox Modeling Off 55
Adjust the Noise Gate 56
Select and Adjust the Chorus 56
Turn the Delay Off 56
Select and Adjust the Reverb 57
Store the Preset 57

Storing/Copying a Preset 58
Storing a Preset 58
Copying a Preset 58

Footswitch Functions for Modes 59
Preset Mode - Green 59
Stompbox/Control Mode - Yellow 60
Recorder Mode - Red 61

Drum Machine/MP3 Player 62
Control Panel - Drum Machine/MP3 Player Buttons 62
Stop/Play 62
Pattern/File 62
Internal Drum Pattern List 62
Level 62
Tempo 62
Kit 62
Internal Drum Kit List 62
Footswitch Operation 63
GNX4 MP3 Demo (Internal) 63

Audio Routing for Recording 64
GNX4 Inputs and Recorder Routing 64
GNX4 Input Sources 64
(Compact Flash) CF/USB 1-2 Source 64
USB 3-4 Source 65
Guitar Signal Routing 66
Mic Signal Routing 66
Line Signal Routing 67

The GNX4's 8-Track Recorder 68
Recorder Control and USB/Signal Routing Panel 68
Song Setup 70
Drums/MP3 (Pattern/File) 70
Drums/MP3 Level 70
Song Tempo 71
Drum Kit 72
Click Track 72
Pre-Roll 73
Song Repeat 73
Auto Stop 74
Quantize 74
Format 75
Using Compact Flash Memory Cards 75
Let's Start Recording! 76
Selecting an Input Source 76
Using the Record and Playback Meters 76
Using the GNX4's Recorder Panel for Recording . . .77
Recording a Track 77
Playing Back a Recorded Track 78
Recording Multiple Tracks 78
Setting Track Playback Levels and Panning 78
Setting Each Track's Playback Level: 79
Setting Each Track's Pan: 79
Adjusting the Recorder's Playback Master Level 79
Undoing/Erasing a Track 80
Using Undo While the Recorder is Stopped . . .80
Using Undo While Recording is in Progress . . .80
Changing Track Status 81
Punching In / Punching Out 81
Bouncing/Merging Tracks 81
Re-Amping Using the GNX4's Recorder 82
Hands-Free Recording 83
Using the RECORD Footswitch to Record a Track 83
Using the PLAY Footswitch to Play Back a Recorded Track 83
Using the Footswitches to Record Multiple Tracks 83
Using the UNDO Footswitch to Erase a Track 84
Using Undo While the Recorder is Stopped . . .84
Using Undo While Recording is in Progress . . .84
Using the Footswitches for Punching In/Punch Outing 84
Hands-Free Recording with the GNXFC 85
Using the GNXFC to Record a Track 85
Using the GNXFC to Play Back a Recorded Track 85
Using the GNXFC to Record Multiple Tracks 85
Using the GNXFC to Undo/Erase a Track 86
Using Undo While the Recorder is Stopped . . .86
Using Undo While Recording is in Progress . . .86
Using the GNXFC for Punching In/Punching Out 86
Using the GNX4's JamMan™ Delay Looper 87
Recording a Loop 87
Recording Layered Overdubs to Your Loop . . .88
Using Quantize for Seamless Loops 88
Using the GNXFC for Looping 89
Recording a Loop 89
Recording Layered Overdubs to Your Loop 89
Drum Machine Recorder Operation 90
Setting Up Playback Files with a Song 90
Recording Drums 90
MIDI and Recording 91
Working with Songs and Loops 91
Selecting Songs and Loops 91
Deleting Songs and Loops 91

Table of Contents

Computer Recording via USB 92
USB Recording Introduction 92
Installing the GNX4's Software Suite 92
Connecting the GNX4 to the Computer 92
Using Pro Tracks Plus™ 93
Installing Pro Tracks Software 93
Setting Up the GNX4 MIDI Device 93
Setting up the GNX4 for Hands-Free Recording .93
Setting up Pro Tracks Plus™ for GNX4 Audio 94
Using the GNX4's Footswitches for Hands-Free Computer Recording 95
Recording a Track or Tracks 95
Playing Back a Recorded Track 95
Recording Multiple Tracks 95
Using the UNDO Footswitch to Erase a Track . .96
Using the GNXFC for Hands-free Computer Recorder Functions 96
Re-Amping a Guitar Track 97
GNX4 Drums and MIDI 98
Recording the GNX4 Drums as Audio 98
Recording the GNX4 Drums as MIDI 98
USB Playback Mix 99
USB 1-2 Level/USB 3-4 Level 99
Using BIAS® Deck™ SE 100
Configuring the Audio Settings for BIAS Deck SE 100

Compact Flash File Functions 101
Compact Flash File Structure 101
Songs 101
MIDI 101
MP3 101
Presets 101
Compact Flash Storage/File Transfer 102
Windows® Users 102
Mac® Users 102
Memory Card/Computer File Format 103

Utilities 104
Volume Pedal Update 104
V-Switch Threshold/Sensitivity 104
Expression Pedal Calibration 104
Preset Bounceback 105
Hands-Free Default 105
Bank Names 105
MIDI Channel 106
Bulk Dump 106
MIDI Preset Dump 106
User HyperModel™ Amp Dump 106
MIDI Mapping 107
MIDI Merge 107
Drum MIDI 107
Default Drum Kit 108
Factory Reset 108

Trouble Shooting Guide 109

Appendix 112
Preset List 112
MIDI Implementation Chart 112
MIDI CC List 113
General MIDI Drum Sample List 114
Specifications 115

Introduction

Congratulations on your purchase of the GNX4 Guitar Workstation™. The GNX4 is the most advanced product of its kind, delivering an award-winning GeNetX™ multi-modeling guitar processor, onboard 8-track digital recorder, General MIDI drum machine, MP3 player, and USB audio/MIDI interface in a single integrated package. Combined with the included suite of recording, editing, and production software, the GNX4 Guitar Workstation is a complete solution for your performing and recording needs.

The intuitive user interface makes programming as simple as turning a knob. However, your time would be well spent by reading through this Owner's Manual with your GNX4 in front of you.

Included Items

Please check to make sure the following items have been included:

- **DigiTech GNX4 Guitar Workstation**
- **DigiTech PSS3 Power Supply**
- **DigiTech GNX4 Owner's Manual**
- **DigiTech Warranty Card**
- **Pro Tracks Plus™ User's Guide**
- **Pro Tracks Plus™ Quick Start Guide**
- **Lexicon® Pantheon™ User's Guide**
- **DigiTech GNX4 Software Suite Package**
    - **X-Edit™ Editor/Librarian and USB Drivers CD**
    - **Pro Tracks Plus™ Software CD (Windows® XP/2000)**
    - **BIAS® Deck™ SE Software CD (Mac® OSX)**
    - **GNX4 Software Installation Guide**
- **USB Cable**

The utmost care was taken in the manufacturing and packaging your GNX4. Everything should be included and in perfect working condition. However, if you find anything missing, please contact the factory at once. Please take a moment to fill out the warranty card. It is your safeguard in the unlikely event that the GNX4 develops a problem.

Introduction

Quick Start

This Quick Start section is included for those of you who would rather play now and read later.

Make Connections

1. Connect your instrument to the **GUITAR/INSTRUMENT INPUT** jack on the GNX4's rear panel.
2. Connect either the **1/4"** or the **XLR LEFT/RIGHT OUTPUTS** to the input(s) of your amplifier(s), power amp, or mixer.

Speaker Compensation

The GNX4 is equipped with **SPEAKER COMPENSATION** filtering that can be used with its **1/4"**, **XLR**, and **HEADPHONE OUTPUTS**.

1. If you are using the GNX4 with headphones or connecting it directly to a mixer via the **XLR OUTPUTS**, switch the **XLR OUTPUTS' SPEAKER COMPENSATION** on. The switch is located to the right of the XLR jacks on the rear panel.
2. If you are connecting the GNX4 directly to a guitar amplifier with a built-in speaker via the **1/4" OUTPUTS**, switch the **1/4" OUTPUTS' SPEAKER COMPENSATION** off. The switch is located to the right of the 1/4" jacks on the rear panel.

Apply Power

1. Turn the **OUTPUT** level knobs (for both the **1/4"** and **XLR OUTPUTS**), on the rear panel of the GNX4, all the way down (fully counter clockwise).
2. Connect the PSS3 power supply to the **POWER** jack on the GNX4.
3. Connect the other end of the PSS3 power supply to an AC outlet.
4. Turn the GNX4 **POWER** switch on.
5. Turn your amplifier(s) on, and adjust the volume(s) to a normal playing level. Gradually turn up the GNX4's **OUTPUT** level.

Select an Output Setup Mode

1. Press the **OUTPUT SETUP** button located in the control panel to the right of the **DATA WHEEL**.
2. Rotate the **DATA WHEEL** to select an Output Setup mode.
3. Select the Output Setup mode that applies to your application, they include: STEREALL, MONO ALL, MONO 1/4, MONO XLR, SPLIT 1 and SPLIT 2.

Note: See page 9 for a detailed explanation of the Output Setups.

5. Press the **EXIT** button located in the control panel.

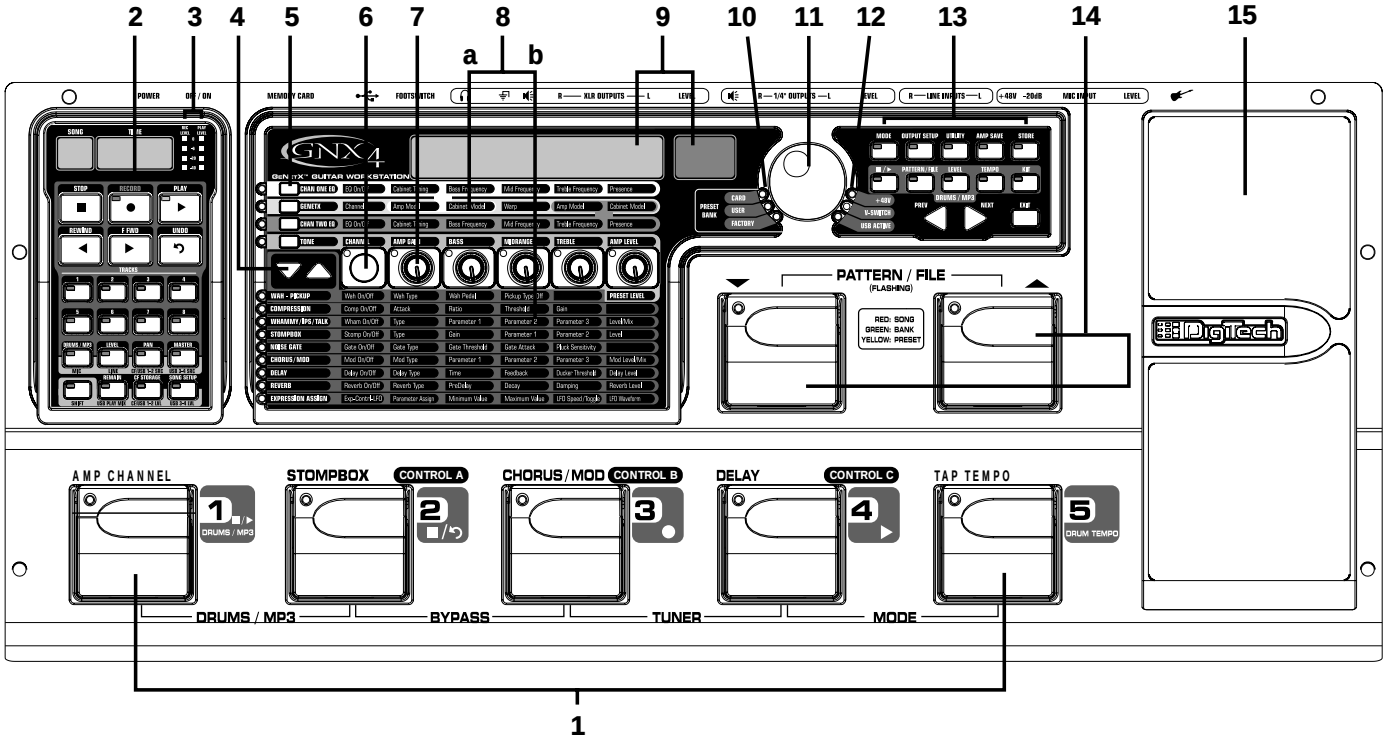
Select a Preset

The GNX4 comes with 80 pre-programmed Factory Presets, and 80 User Presets. From the factory, the User Presets are exact duplicates of the Factory Presets.

1. Press the **UP/DOWN** footswitches to select a Bank.
2. Press **Footswitches 1-5** to select a preset, or rotate the **DATA WHEEL**.

A Guided Tour of the GNX4

The Front Panel



1. Footswitches 1-5

Depending on the selected mode, these 5 footswitches select presets, change amp channels, turn individual effects on and off, control drum machine operations, control playback of MP3 files, and give you hands-free operation of the GNX4's onboard recorder. Drums/MP3, Bypass, Tuner, Mode, and Pattern/File functions are accessed by pressing the labeled pair of footswitches.

2. Recorder Control and USB/Signal Routing Panel

This control panel operates the GNX4's onboard digital recorder, USB audio routing, and mass storage functions. (See page 68 for more details regarding the **Recorder Control and USB/Signal Routing Panel**.)

3. Record/Play Level Meters

These 4 Segment LED Meters allow you to monitor the Record/Play signal levels during use.

4. Effect Select Buttons

The Effect Select buttons are used together with the Matrix LEDs to choose the effects you want to edit.

5. Amp Control Buttons

The Amp Control buttons are used to select one of the amp/cabinet model edit rows including: CHAN ONE EQ (Green), GENETX (Yellow), CHAN TWO EQ (Red), and TONE (Silver)

6. Status Button

The Status button is used to select amp channels for editing purposes and to turn each respective amp channel's EQ on and off. With the CHAN ONE EQ (Green) amp/cabinet model edit row selected, the Status button turns Channel One's EQ on and off. With the GENETX (Yellow) amp/cabinet model edit row selected, the Status button selects between the Channel One, Channel Two, and the Warp Channels (if a Warped state between both channels exists). With the CHAN TWO EQ (Red) amp/cabinet model

edit row selected, the Status button turns Channel Two's EQ on and off. With the TONE (Silver) edit row selected, the Status button selects between Channel One Amp, Warped Amp, and Channel Two Amp. The Amp Gain, Bass, Midrange, Treble, and Amp Levels alternate between editing Channel One's (lit green) or Channel Two's (lit red) amp settings as the status button is pressed. When editing effects in the Effect Matrix, the Status Button turns the selected effect on and off, or selects a controller type for the expression assignment.

7. Knobs

Depending on which amp control row or effect row is selected using the **Amp Control** or **Effect Select** buttons, these 5 knobs adjust the parameters listed in the column directly above or below each knob.

8. Matrix

a. GeNetX™ Amp Controls Matrix

The GeNetX Amp Controls Matrix displays the GNX4's Channel One and Channel Two amp types, cabinet types, EQ/tone controls, and cabinet tuning parameters available for editing in each preset.

b. Effects Matrix

The Effects Matrix displays the effects parameters available for editing in each preset.

9. Displays

The Displays give feedback of the various functions that are being used in the GNX4, including preset name, editing functions, tuner, utility menus, drum machine and recorder settings.

10. Preset Bank LEDs

The Preset Bank LEDs indicate whether the selected preset is an internal Factory or User preset, or if the preset is a user preset saved externally on the optional Compact Flash memory card.

11. Data Wheel

The Data Wheel is a multi-function control used for selecting presets, editing preset parameters or for adjusting the settings of the Recorder, Drum Machine, Utility, and Output Setup menus.

12. Status Indicator LEDs (+48V, V-Switch, and USB Active)

The Status Indicator LEDs illuminate when the Microphone Input has +48V Phantom Power active, the Expression Pedal's V-Switch is engaged, or the USB connection is active.

13. Control Panel Buttons

The Control Panel Buttons are used to select the GNX4's Footswitch Modes, Output Setups, Utility functions, and to store Amp/Cabinet Model edits and Preset changes. They also access the GNX4's onboard General MIDI Drum Machine and MP3 Player. The buttons are labeled as follows:

MODE - This button changes the functionality of footswitches 1-5 (see the **Footswitch Functions for Modes** section on page 59). When the Mode button is lit yellow, footswitches 1-5 toggle effects on and off, change amp channels, or can be assigned to various parameters using the control footswitches. When the Mode button is lit green, footswitches 1-5 select presets in the current preset bank. When the Mode button is lit red, footswitches 1-5 control the GNX4's recorder functions.

OUTPUT SETUP - This button selects one of the GNX4 Output Setups: Stereo All, Mono All, Mono 1/4", Mono XLR, Split 1 and Split 2. Stereo and Mono All have all the input sources (guitar, mic, line, drums, onboard recorder playback and audio playback from USB) routed to both output pairs in either stereo or mono respectively. Split 1 routes the guitar signal to just the 1/4" outputs while all other sources are routed out the XLR outputs. Split 2 is the same as Split 1 but the guitar signal is also routed out the XLR outputs.

UTILITY - This button accesses the GNX4's global functions including: Volume Pedal Update, V-Switch Threshold/Sensitivity, Expression Pedal Calibration, Preset Bounceback, Hands-Free, Bank Naming, MIDI Channel selection, Sysex Bulk Dump, MIDI Preset Dump, User HyperModel™ Amp Dump, MIDI Mapping, MIDI Merge, Drum MIDI, Default Drum Kit, and Factory Reset (see the **Utilities** section on page 104).

AMP SAVE - This button stores Amp and Cabinet changes (tone, gain, level, amp type, cabinet type, warp, or cabinet tuning) as HyperModels.

STORE - This button is used to save Preset edits to the GNX4's User Presets or to an optional Compact Flash card.

■ / ▶ (STOP/PLAY) - This button is used to turn the GNX4's General MIDI Drum Machine/MP3 Player on and off.

PATTERN/FILE - Pressing this button and using the **DATA WHEEL** selects the GNX4's internal drum patterns, external MIDI, or MP3 files to be played. MIDI and MP3 files must be resident in the GNX4>MIDI and GNX>MP3 directories on your Compact Flash card in order for them to be recognized (see the **Memory Card/Computer File Format** section on page 103).

LEVEL - This button adjusts the GNX4's Drum Machine output level or the playback level of MP3s.

TEMPO - This button adjusts the tempo of the GNX4's Drum Machine. Tempo is ignored when an MP3 is selected.

KIT - This button selects one of the GNX4's drum kits. Kit is ignored when an MP3 is selected.

EXIT - Exits all functions back to the preset display.

14. Down/Up Footswitches

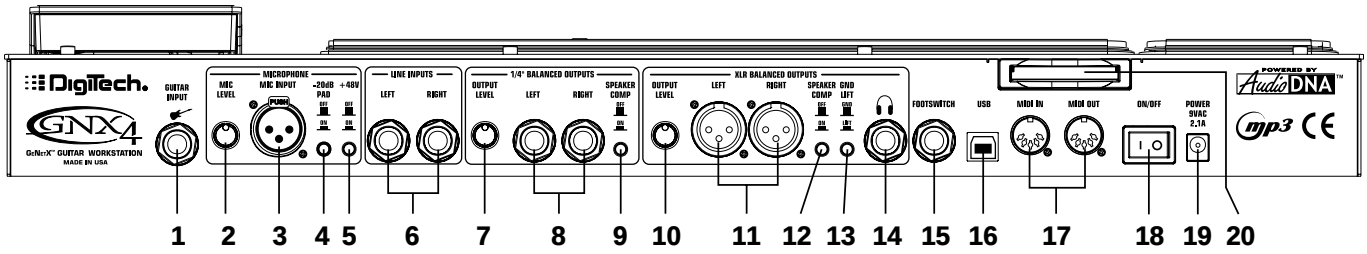
These footswitches select songs (Recorder Mode), move up and down through the User preset banks (Preset Mode), and navigate through presets (Stompbox/Control Mode). Pressing and holding these footswitches simultaneously temporarily enables them to select the GNX4's drum patterns or any MIDI and MP3 files available on an optional Compact Flash memory card.

15. Expression Pedal

The Expression Pedal controls effect parameters in real time. Most GNX4 parameters can be assigned to the Expression Pedal. Applying extra pressure to the toe of the Expression Pedal enables the V-Switch feature which changes the Expression Pedal's function to control the Wah (see **V-Switch Threshold/Sensitivity** on page 104).

Introduction

The Rear Panel



1. Guitar/Instrument Input
Connect your guitar/instrument to this jack.

2. Mic Level
Controls the gain of the mic input preamp.

3. Microphone Input
Connect a low impedance microphone to this jack for recording vocals or acoustic instruments into the GNX4's Recorder. It can also be used for the Talker™ Vocoder effect (see **Talker** on page 37). The mic signal can remain dry or processed through the GNX4's effects for live and recording applications.

4. -20dB Pad Switch
The -20dB pad is a resistive attenuator that drops the level coming from the mic input jack. Its purpose is to give you a way of preventing overload of the preamp when incoming signals become excessive. When the pad is on, the net gain of the preamp is 20dB lower than normal.

5. +48V Phantom Power Switch
This switches on the phantom power to the Microphone Input. Dynamic microphones do not require phantom power to operate, but are not harmed by it. Most condenser microphones do require phantom power to operate. If you are unsure about the phantom power requirements for your microphone, consult your microphone's documentation or contact the manufacturer.

6. Left/Right Balanced Line Inputs
Connect line level sources to these jacks for recording or live performance mixing into the GNX4. Line signals can remain dry or be processed through the GNX4's effects for live and recording applications.

7. Output Level (1/4" Outputs Only)
Controls the overall volume level of the 1/4" outputs of the GNX4.

8. Left/Right Line 1/4" Balanced Outputs
Connect these outputs to your guitar amplifier(s), power amplifier(s), or to a mixing console that accepts 1/4" balanced connections.

9. Speaker Compensation Switch (1/4" Outputs Only)
This switch enables Speaker Compensation on the 1/4" Outputs for when they are connected to a full-range speaker system. This switch should be set to the off position when the 1/4" outputs are connected to a guitar amp or power amp/guitar cabinet system.

10. Output Level (XLR and Headphone Outputs Only)
Controls the overall volume level of the balanced XLR and Headphone outputs of the GNX4.

11. Left/Right XLR Balanced Outputs
Connect these outputs to your power amplifier/speaker system or to a mixing console that accepts XLR balanced connections.

12. Speaker Compensation Switch (XLR and Headphone Outputs Only)
This switch enables Speaker Compensation on the XLR and Headphone Outputs for when they are connected to a full-range speaker system. This switch should be set to the off position when the XLR outputs are connected to a power amp/guitar cabinet system.

13. Ground Lift Switch
This switch lifts pin 1 of the XLR Outputs from all ground references. This may be necessary to break troublesome ground loops that can cause hum in the system, especially when both XLR and 1/4" outputs are used together.

14. Headphone Output
Connect a pair of stereo headphones to this jack. **Do not** connect a mono plug to this jack, as it may damage the output driver.

15. Footswitch
(Optional) Connect a GNXFC footswitch to this jack for remote control of the GNX4's recorder functions.

16. USB Jack
Connect this jack to your computer's USB port for hard disk recording and computer preset editing via the X-Edit™ Editor/Librarian software. A standard USB cable is included. The GNX4 is compatible with USB 2.0 high speed ports, however the USB 2.0 bus will switch to a USB v1.1 full speed data rate to work with the GNX4.

ATTENTION: Before using the GNX4's USB connection, it is necessary to first install the USB drivers provided on the X-Edit Software CD. Please read the Software Installation Guide that came with your GNX4 for the proper instructions on how to install the drivers for your operating system.

17. MIDI In
The MIDI In jack receives all incoming MIDI data. MIDI preset changes and CC control messages received from external MIDI devices connected to the MIDI In jack can be used to control the GNX4 and its presets parameters. When the GNX4 is connected to the computer via USB, the MIDI In can be used as a MIDI interface for recording any MIDI data in Pro Tracks Plus™ or other MIDI recording software.

18. MIDI Out/Thru
The MIDI Out/Thru jack sends MIDI data from the GNX4 including system exclusive information and MIDI preset changes. When the GNX4 is connected to the computer via USB, it can act as a MIDI interface for sending MIDI data from Pro Tracks Plus™ or other MIDI recording software to external keyboards or sound modules. When MIDI Merge is enabled in the Utility menu, the MIDI Out acts as a MIDI Thru for any data coming into the GNX4 from the MIDI In jack.

19. Power Switch
Turns the power on and off.

20. Power Input

Connect only the provided DigiTech PSS3 power supply to this jack.

21. Compact Flash Memory Card Slot

(Optional) Insert an optional Compact Flash (CF) card in this slot for use with the GNX4's on board recorder. Songs, Presets, MIDI files, and MP3 files can be saved and retrieved from the CF card as well. The GNX4 can also function as a Compact Flash card reader by using a Compact Flash card (inserted into this slot) and connecting the GNX4 to your computer via the USB port. The Compact Flash card will be recognized as a hard disk (mass storage drive) for transferring files. See **Compact Flash Storage/File Transfer** on page 102 for more information regarding this function.

NOTE: The GNX4 is compatible with Type I Compact Flash cards only. It is not compatible with Type II cards or IBM/Hitachi Microdrives™.

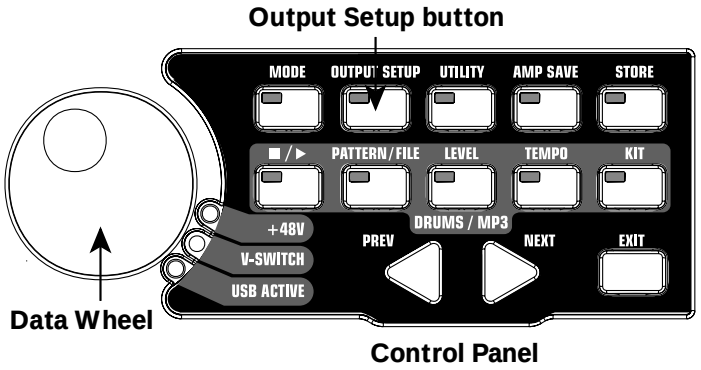
Setups Introduction

The GNX4 is equipped with four inputs and four outputs that can be configured several different ways for both live and recording applications. These settings determine which pair of outputs the mic, line, and guitar processing are routed to and how the mic or line inputs are routed through the GNX4's effects processing.

Output Setups and Speaker Compensation

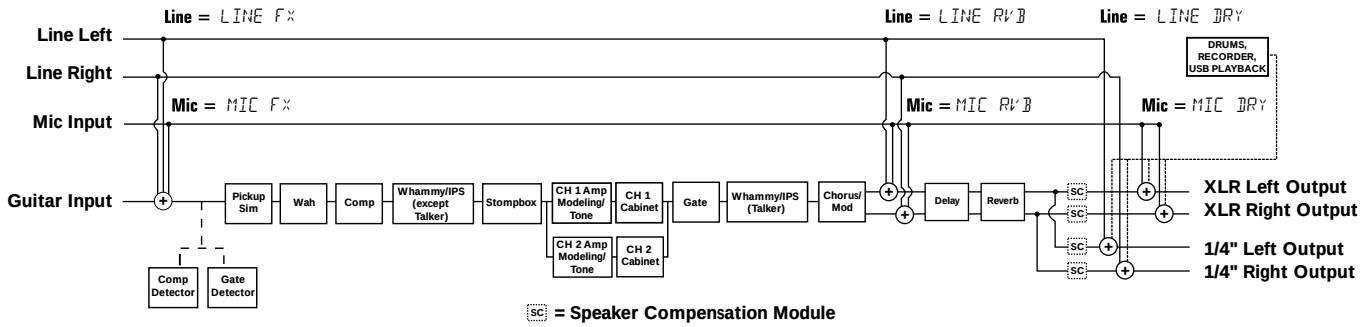
The GNX4 features both 1/4" and XLR outputs on the rear panel. These jacks let you simultaneously connect the GNX4 to an amplifier/speaker system on stage via the 1/4" outputs and connect directly to your PA system via the XLR outputs. The GNX4 incorporates Speaker Compensation filtering that can be turned on or off independently for each output pair depending on your application needs.

Use the **OUTPUT SETUP** button along with the **DATA WHEEL** to select one of the Output Setup options.



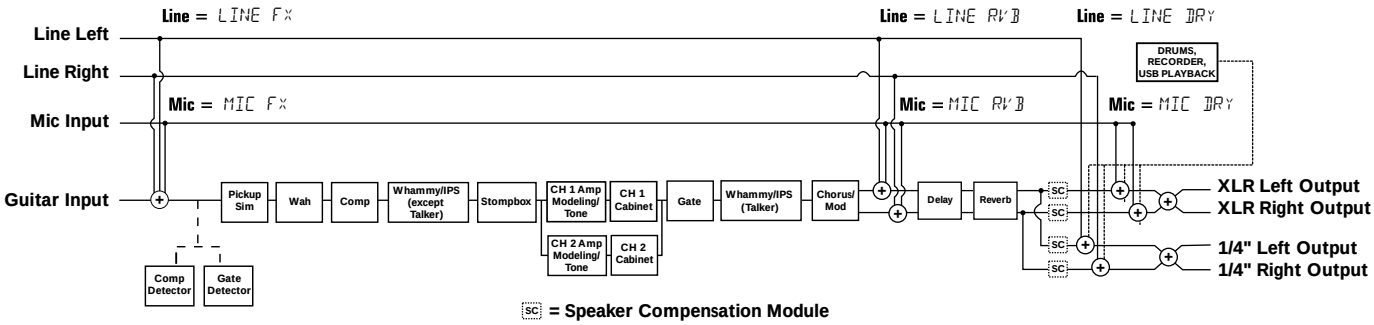
The six **Output Setups** are as follows:

STEROALL - All input sources (guitar, mic, line, drums, onboard 8-track recorder playback and USB playback) are routed to both output pairs in stereo. Speaker Compensation can be turned on and off independently for either the 1/4" or XLR outputs using the Speaker Compensation switch associated with each pair on the rear panel.

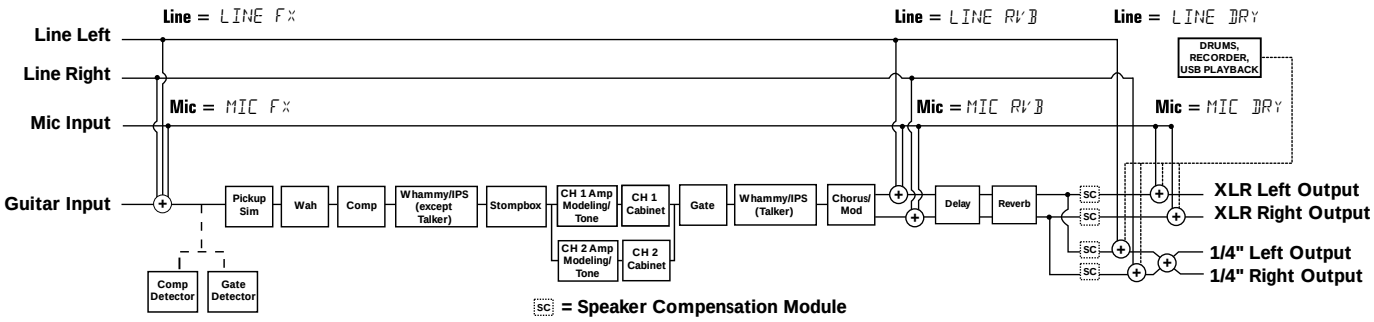


Audio Routing Setups

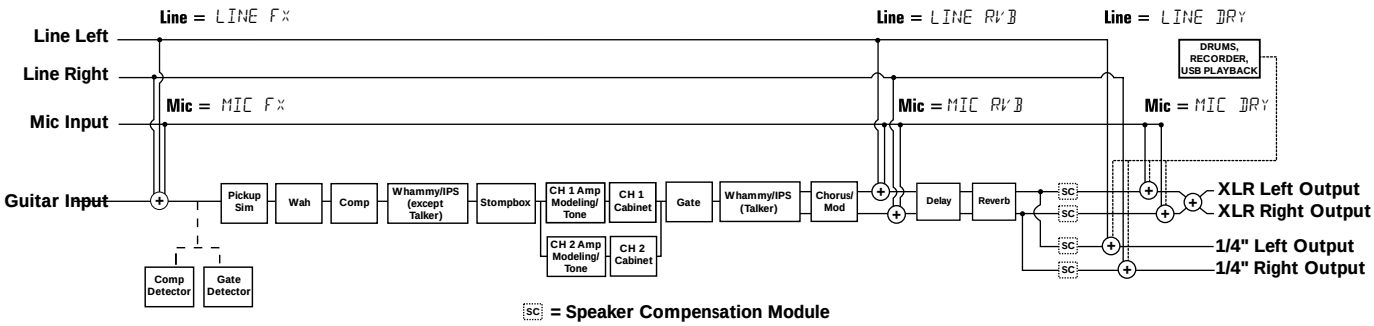
MONO ALL - All input sources (guitar, mic, line, drums, onboard 8-track recorder playback and USB playback) are routed to both output pairs in mono. Speaker Compensation can be turned on and off independently for either the 1/4" or XLR outputs using the Speaker Compensation switch associated with each pair on the rear panel.



MONO 1/4 - All input sources (guitar, mic, line, drums, onboard 8-track recorder playback and USB playback) are routed to the 1/4” outputs in mono. All input sources routed to the XLR outputs maintain stereo separation. Speaker Compensation can be turned on and off independently for either the 1/4" or XLR outputs using the Speaker Compensation switch associated with each pair on the rear panel.



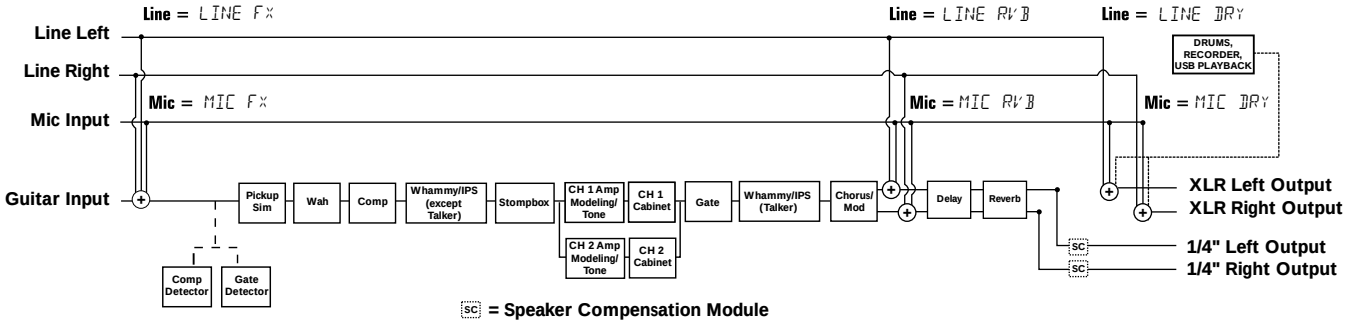
MONO XLR - All input sources (guitar, mic, line, drums, onboard 8-track recorder playback and USB playback) are routed to the XLR outputs in mono. All input sources routed to the 1/4” outputs maintain stereo separation. Speaker Compensation can be turned on and off independently for either the 1/4" or XLR outputs using the Speaker Compensation switch associated with each pair on the rear panel.



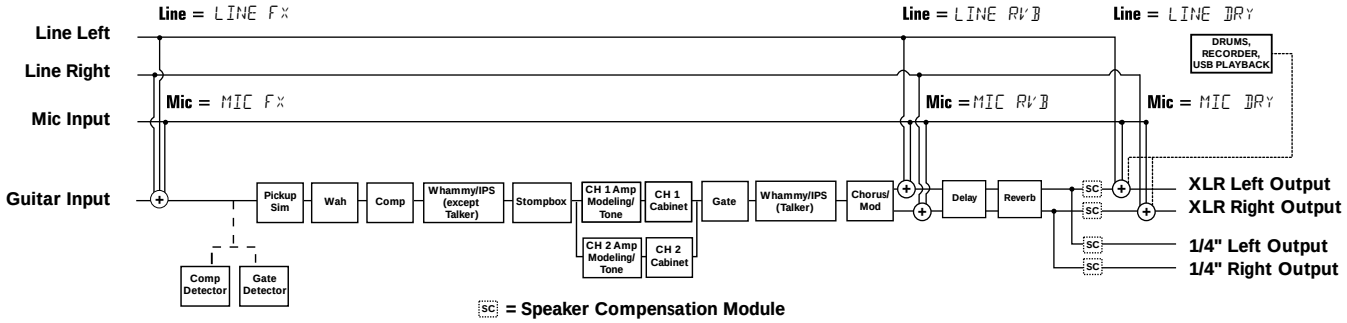
Audio Routing Setups

The SPLIT1 Output mode routes guitar signal to the 1/4" outputs while the mic, line input sources, drums, and audio playback from the onboard 8-track recorder and the computer are routed out the XLR outputs. SPLIT2 is the same as SPLIT1 but the guitar signal with Speaker Compensation is also routed out the XLR outputs.

SPLIT1 - Stereo guitar processing is routed to the 1/4" outputs. Audio playback from the computer, mic, and line sources are routed to the XLR outputs. Speaker Compensation can be individually turned on and off either the 1/4" or XLR outputs using the Speaker Compensation switch located next to each output pair on the rear panel.



SPLIT2 - Stereo guitar processing is routed to the 1/4" outputs without Speaker Compensation. Stereo guitar processing, audio playback from the computer, mic, and line sources are routed to the XLR outputs with Speaker Compensation. Speaker Compensation can be individually turned on and off either the 1/4" or XLR outputs using the Speaker Compensation switch located next to each output pair on the rear panel.

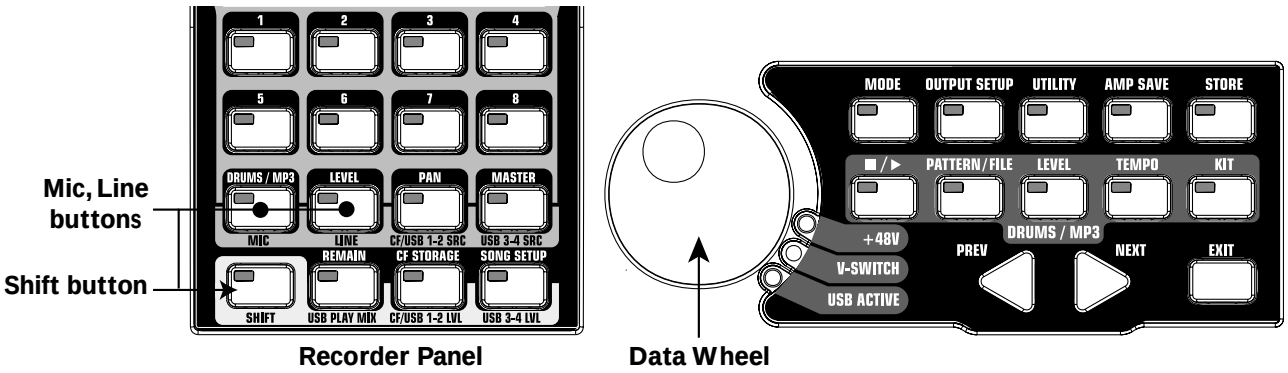


Audio Routing Setups

Mic and Line Setups

The Mic and Line Setups are configurations for the mic and line inputs designed for both live performance and recording applications. The GNX4 acts as a mixing device for mic and line sources, and can eliminate the need for a mixer when the GNX4's outputs are to be plugged directly into a full-range powered speaker system. When enabled, these inputs can be routed around or through the GNX4's effects processing and then mixed directly into the GNX4's 1/4" and XLR outputs.

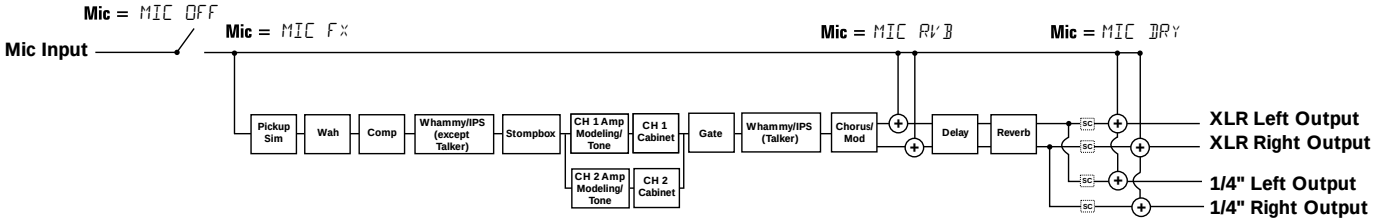
Use the **SHIFT>MIC** and **SHIFT>LINE** buttons along with the **DATA WHEEL** to select the Mic/Line Setup options.



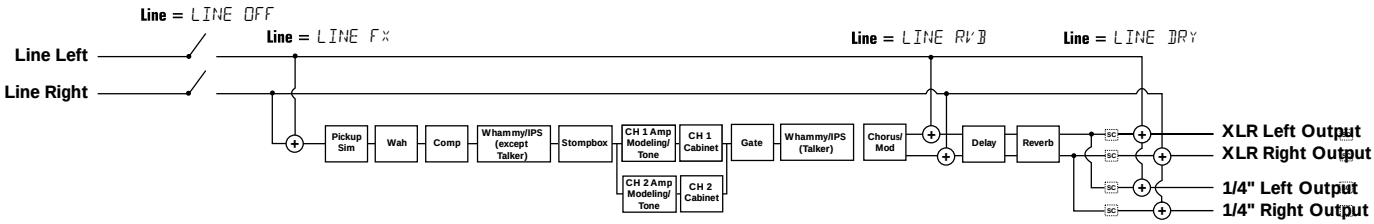
Both Mic and Line inputs have four settings that can be independently selected. They are as follows:

MIC OFF / LINE OFF - Mic and Line inputs are disabled.
MIC DRY / LINE DRY - Inputs routed directly to GNX4's outputs, bypassing all effects processing.
MIC RVB / LINE RVB - Inputs routed through delay and reverb effects of the current preset.
MIC FX / LINE FX - Inputs routed through all effects of current preset.

Mic Routing



Line Input Routing



Optimizing the Mic Input Level

To adjust the microphone input level for optimal use, you must first setup the GNX4's Record Level meter located on the Recorder Control and USB/Signal Routing Panel to monitor the live microphone signal. To do this, follow these steps:

1. Press the **SHIFT** button located on the Recorder Control and USB/Signal Routing Panel and then press the **CF/USB 1-2 SRC** button.
2. Then use the **DATA WHEEL** to select your desired input routing source (STEREOFX, STEROALL, MONO FX, MONO ALL, SUM+DGTR, SUM+MIC, DGTR+MIC, or DRY MIC). STEREOFX and MONO FX will only work if the Mic Input is selected properly. (See page 64 for more information regarding the **GNX4 Input Sources**.) Also, if the mic is routed through MIC RVB or MIC FX, the active effect's level can impact the levels shown in the meters.
3. Talk or sing into the mic as intended for use and adjust the GNX4's Microphone Input Level knob located on the rear panel until the level consistently lights just below the 0 dB clip point on the REC LEVEL meter. Utilize the -20 dB pad switch also located on the GNX4's rear panel if the level is too high to provide proper headroom.

NOTE: If your microphone requires phantom power, first make sure the microphone is connected, then press the Phantom Power switch (labeled +48V) located on the rear panel of the GNX4. The +48V LED located next to the DATA WHEEL indicates the phantom power is active. If your mics don't need phantom power, it is best to turn it off.

Optimizing the Line Input Levels

To adjust the line input levels for optimal use, you must first setup the GNX4's Record Level meter located on the Recorder Control and USB/Signal Routing Panel to monitor the live line input signals. To do this, follow these steps:

1. Press the **SHIFT** button located on the Recorder Control and USB/Signal Routing Panel and then press the **CF/USB 1-2 SRC** button.
2. Then use the **DATA WHEEL** to select your desired input routing source (STEREOFX, STEROALL, MONO FX, MONO ALL, SUM+DGTR, or DRY LINE). STEREOFX and MONO FX will only work if the Line Inputs are selected properly. (See page 64 for more information regarding the **GNX4 Input Sources**.) Also, if the lines are routed through LINE RVB or LINE FX, the active effect's level can impact the levels shown in the meters.
3. Play audio back from your external audio device (mixer, keyboard, CD player, etc.) and adjust its output level until the level consistently lights just below the 0 dB clip point on the GNX4's REC LEVEL meter.

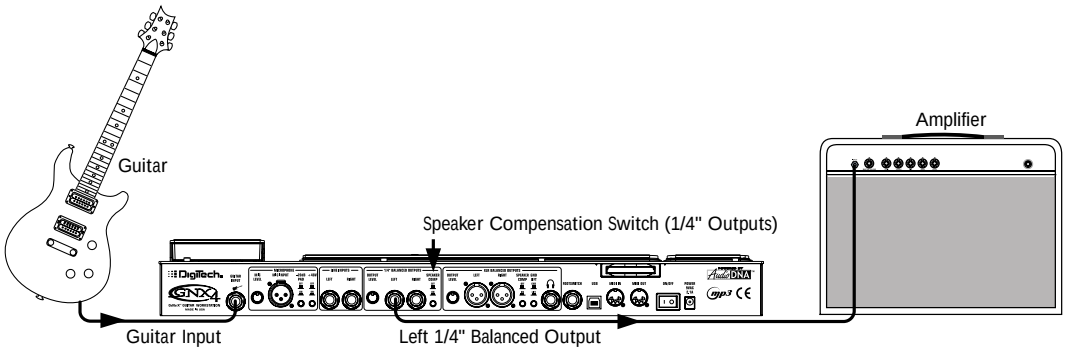
Making Connections

For Live Performance

The GNX4 was designed to be extremely flexible to meet any of your application needs. For many GNX4 users, its primary purpose will be for use in live performances. Whether you are a solo performer who spends weekends playing at a small club or the power-user playing the largest venues each night, the GNX4 has just what you need to do the gig right. The following diagrams show examples of how to utilize the GNX4 in typical live performance applications.

Before connecting the GNX4, make sure both the GNX4 and your amplifier(s) are turned OFF.

Small Club Setup (Mono Amp Rig)

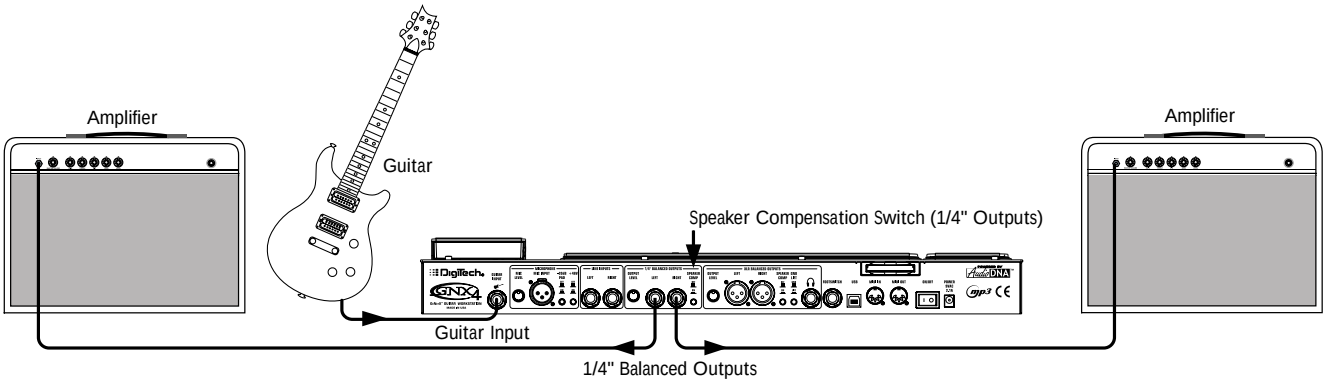


This diagram demonstrates a minimum setup for using the GNX4 in a typical, small club performance setup. All you need is your guitar, a couple of guitar cables, and an amp. This connection scheme also applies for use with a power amp/speaker cabinet rig.

1. Connect your guitar to the GNX4's Guitar Input.
2. Connect a single mono instrument cable from the Left 1/4" Balanced Output of the GNX4 to the instrument input or the effect return on your amplifier.
3. Switch the GNX4's **Speaker Compensation** for the 1/4" Balanced Outputs to the OFF position.
4. Press the GNX4's **Output Setup** button and select "MONO 1/4" mode using the **Data Wheel**.

NOTE: When using a guitar amp(s), it may be best to connect the GNX4's Output to your amp's effects return to avoid coloration of the tone due to the amplifier's tone controls.

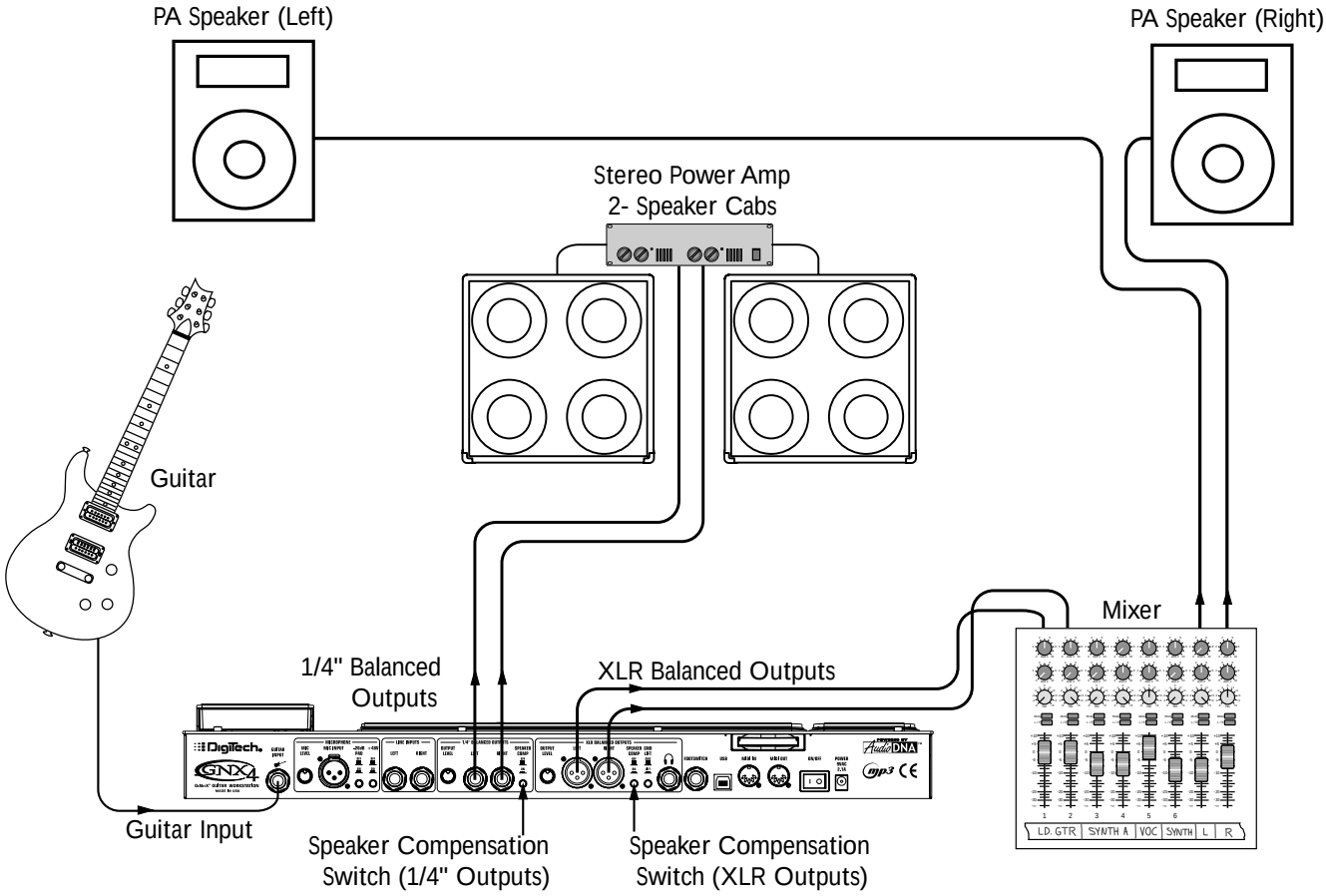
Medium Stage Setup (Stereo Amp Rig)



Whether your gig is at a large club or a small hall, nothing beats running your guitar in stereo. This diagram demonstrates a typical setup using your GNX4's line outputs, and two guitar combo amps.

1. Connect your guitar to the GNX4's Guitar Input.
2. Connect mono instrument cables from the Left and Right 1/4" Balanced Outputs of the GNX4 to the instrument inputs or the effect returns on your amplifiers.
3. Switch the GNX4's **Speaker Compensation** for the 1/4" Balanced Outputs to the OFF position.
4. Press the GNX4's **Output Setup** button and select "STEROLL" mode using the **Data Wheel**.

Large Stage Setup (Stereo Amp/Cabinet Rig)

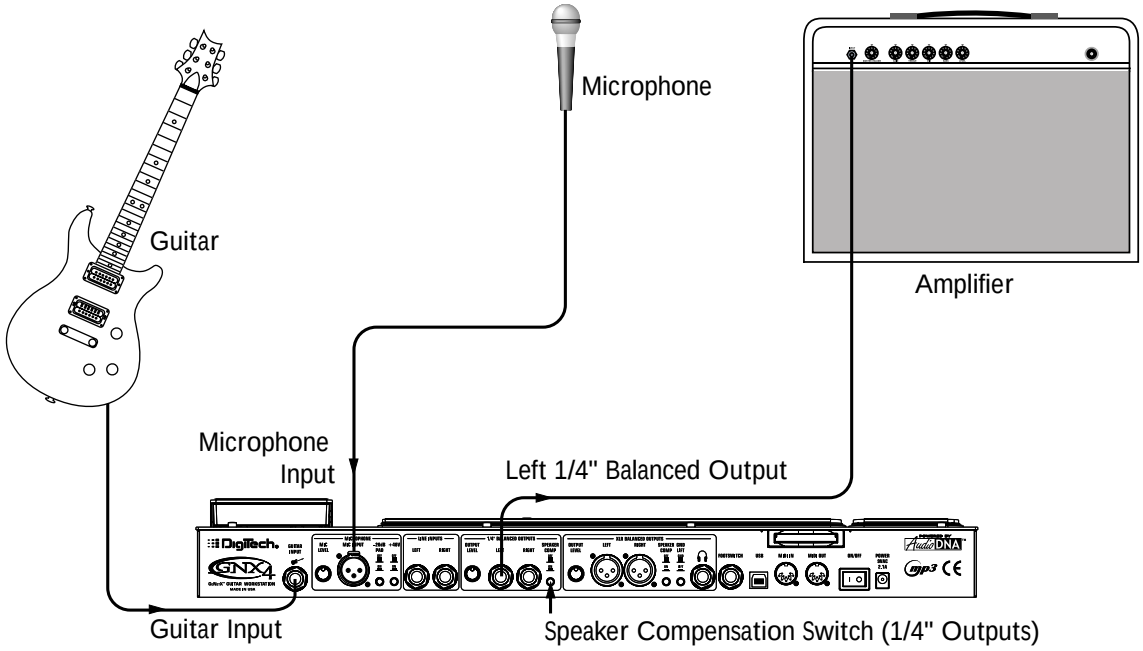


A large stage rig lets you really pull out all the stops since space isn't necessarily an issue, but volume usually is. For this application, plug your guitar into the GNX4 and connect mono instrument cables from the GNX4's 1/4" outputs into a stereo power amp feeding two cabinets. Using two cabinets gives you much more dramatic stereo separation and helps widen the sweet spot for your sound when you move onstage. Another great idea is to run the GNX4's XLR outputs directly into the house P.A. and have the sound engineer control your front of house volume in the overall mix. Then if you need to turn up your stage volume, you won't upset him by trying to rebalance your guitar volume in the house mix. This diagram demonstrates a typical, large stage performance setup.

1. Connect your guitar to the GNX4's Guitar Input.
2. Connect mono instrument cables from the GNX4's Left and Right 1/4" Line Outputs to a stereo power amplifier amplifier and switch the 1/4" Outputs **Speaker Compensation** to the OFF position.
3. Connect XLR cables from the GNX4's Left and Right XLR outputs to the house P.A. mixer and switch the XLR Outputs **Speaker Compensation** to the ON position.
4. Press the GNX4's **OUTPUT SETUP** button and select "STEROALL" as the output mode using the **DATA WHEEL**.

Making Connections

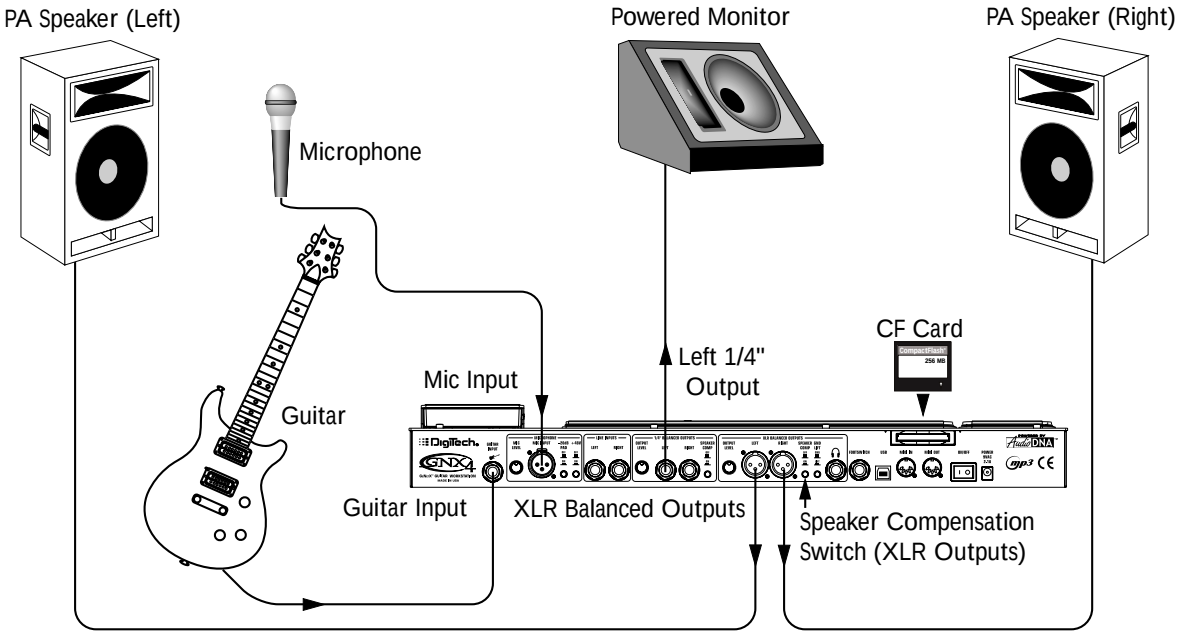
Talker™ Performance Setup



The GNX4's built-in Talker effect creates a talk box effect. To create this effect you must plug a microphone into the GNX4's mic input and select one of the five Talker types in the Whammy™/IPS/Talk module of a preset. Then as you play your guitar talk into the microphone to emulate the talk box effect. The Talker can be used with any output setup, but for this diagram it will be shown in conjunction with a mono amp rig.

1. Connect your guitar to the GNX4's Guitar Input.
2. Connect a single mono instrument cable from the Left 1/4" Line Output of the GNX4 to the instrument input or the effect return on your amplifier and switch the 1/4" Balanced Outputs **Speaker Compensation** to the OFF position.
3. Connect a microphone to the GNX4's Mic Input using an XLR cable.
4. Select one of the five Talker types in the Whammy/IPS/Talk module of a preset.
5. Press the GNX4's **OUTPUT SETUP** button and select "MONO 1/4" as the output mode using the **DATA WHEEL**.
6. Use the **Mic Level** control knob located next to the Mic Input on the GNX4's rear panel to adjust the microphone output level. To adjust your microphone input level for optimal use see **Optimizing the Mic Input Level** on page 13.

Coffee House/Solo Performance Setup



As a solo performer, we all know how important it is to minimize the amount of gear we have to cart to a gig. For the more elaborate system, this may include electronic keyboards, a CD player, and a mixer. The GNX4 virtually eliminates the need for most of this hardware. First, for your backing tracks, just rip your CD audio tracks into MP3s and place these in the MP3 folder created by the GNX4 on the compact flash card. If you need a mic for vocals or an acoustic instrument, just plug it into the GNX4's mic input. You have a variety of routings you can select from including taking advantage of the GNX4's effects processing. For the more advanced setup or if you have a partner on keyboards, just plug them into the GNX4's line inputs and select the appropriate routing needed. Everything can now be run out the GNX4's XLR outputs directly into powered speakers. You can even run to a floor monitor out one of the available 1/4" Line Outputs and enable Speaker Compensation on both pairs of outputs.

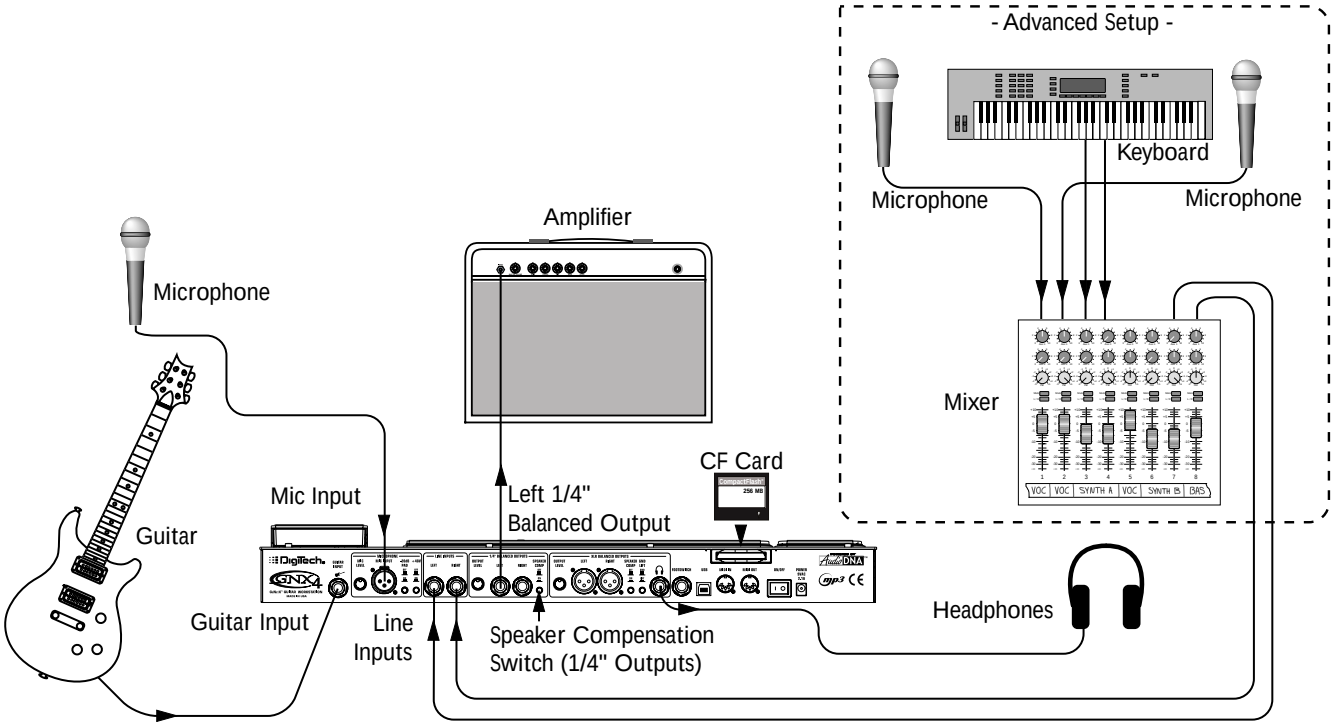
1. Connect your guitar to the GNX4's Guitar Input.
2. Connect a microphone to the GNX4's XLR Mic Input use the **Mic Level** control knob located next to the Mic Input on the GNX4's rear panel to adjust the microphone output level. To adjust your microphone input level for optimal use see **Optimizing the Mic Input Level** on page 13.
3. Connect a mono instrument cable from the GNX4's Left 1/4" Line Output to a powered monitor.
4. Connect the GNX4's balanced XLR Left and Right Outputs to a pair of powered PA speakers.
5. Switch the **Speaker Compensation** on for both the XLR and 1/4" outputs.
6. Press the GNX4's **OUTPUT SETUP** button and select "STEROALL" as the output mode using the **DATA WHEEL**.
7. Use the **Mic Level** control knob located next to the Mic Input on the GNX4's rear panel to adjust the microphone output level. To adjust your microphone input level for optimal use see **Optimizing the Mic Input Level** on page 13.

Making Connections

For Recording

The GNX4 also offers great flexibility for recording applications. Listed below are a couple typical recording setups.

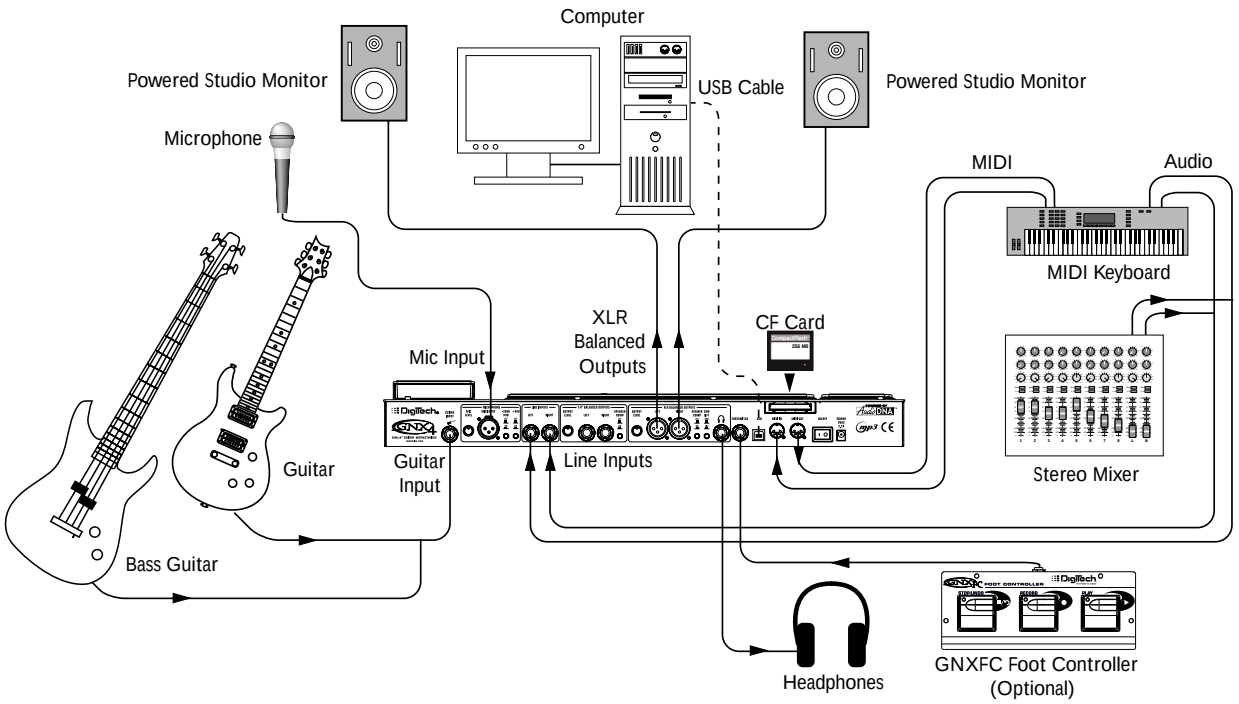
Onboard Recorder Application



Ever had a moment where the band just clicked with a great song idea? Then you came back the next night to go over it again and….how did that go? Never again thanks to the GNX4's onboard recorder and its ability to remotely capture that idea forever. Just plug a mic into the GNX4's mic input, or if you have multiple mics and a mixer, use the stereo output of the mixer into the GNX4's Line Inputs. Use the **Shift>CF/USB 1-2** Source buttons located on the GNX4's Recorder Panel to set the output routing to "STEROALL" and hit record. Now you can ensure that spontaneous genius will never be lost again.

1. Connect your guitar to GNX4's Guitar Input.
2. Connect a microphone to the GNX4's Mic Input and use the **Mic Level** control knob located next to the Mic Input on the GNX4's rear panel to adjust the microphone output level. To adjust your microphone input level for optimal use see **Optimizing the Mic Input Level** on page 13.
3. Connect a single mono instrument cable from the GNX4's Left 1/4" Balanced Output to the instrument input or the effect return on your amplifier and switch the 1/4" Balanced Outputs **Speaker Compensation** to the OFF position.
4. Connect a pair of stereo headphones to the Headphone Output.
5. (Advanced Setup) Connect microphones and a keyboard to your mixer and connect the mixer's stereo outputs to the GNX4's Left and Right Line Inputs. To adjust your line input levels for optimal use see **Optimizing the Line Input Levels** on page 13.
6. Press the GNX4's **OUTPUT SETUP** button and select "STEROALL" as the output mode using the **DATA WHEEL**.
7. Optimize your recording levels by either increasing or decreasing your source material's signal level or by using the GNX4's **SHIFT>CF/USB 1-2 LVL** button along with the **DATA WHEEL** and adjust the levels while playing your guitar. It is best that the recording level consistently lights the -6dB LED on the meter. (See the **Using the Record and Playback Meters** section on page 76 for more information on optimizing your recording and playback levels.)

Computer Recording Application



At the heart of your recording studio, the GNX4 serves both as your guitar processor and audio/MIDI interface. With microphone input, line inputs, and MIDI I/O, you have a full featured interface for recording almost any source you can think of. Connect your guitar or bass to the GNX4's Guitar/Instrument input and use the amp models for tracking your guitar and bass parts. Next, plug in the mic and get your vocal or acoustic performance nailed. You can even add line level instruments or feeds from submixes in and record these and all of this completely hands-free. Even your MIDI keyboard performance can be recorded so you can try the part with different synth voices later.
Since the GNX4 has professional balanced outputs, you can plug directly into your favorite powered monitors and get the bonus of latency free recording to boot.

1. Connect your guitar (or bass guitar) to the GNX4's Guitar Input.
2. Connect a microphone to the GNX4's Mic Input and use the **Mic Level** control knob located next to the Mic Input on the GNX4's rear panel to adjust the microphone output level. To adjust your microphone input level for optimal use see **Optimizing the Mic Input Level** on page 13.
3. Connect a pair of stereo headphones to the Headphone Output.
4. Connect a keyboard, line level instrument, or stereo mixer (for feeding submixes) to the GNX4's Left and Right Line Inputs. To adjust your line input levels for optimal use see **Optimizing the Line Input Levels** on page 13.
5. Connect a GNXFC Foot Controller (optional) to the GNX4's Footswitch jack.
6. Connect a MIDI keyboard to the GNX4's MIDI In and Out/Thru jacks using 5 Pin MIDI cables.
7. Connect XLR cables from the GNX4's Left and Right XLR outputs to powered studio monitors.
8. Connect the GNX4 to your computer's USB jack using the included USB cable.

ATTENTION: Before using the GNX4's USB connection, it is necessary to first install the USB drivers provided on the X-Edit™ Software CD. Consult the Software Installation Guide that came with your GNX4 for the proper instructions on how to install the drivers for your operating system.

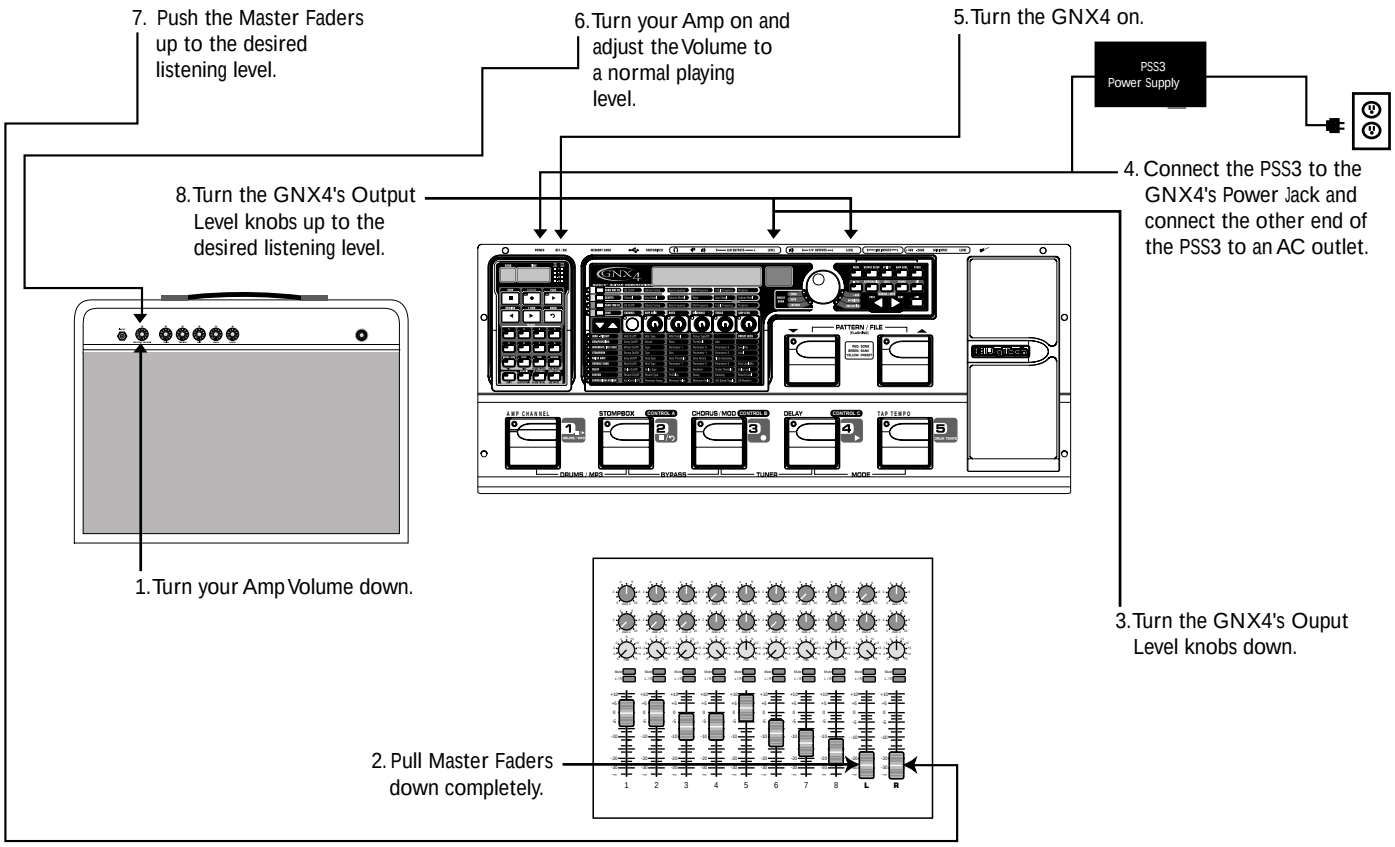
9. Press the GNX4's **OUTPUT SETUP** button and select "STEROALL" as the output mode using the **DATA WHEEL**.

Making Connections

Applying Power

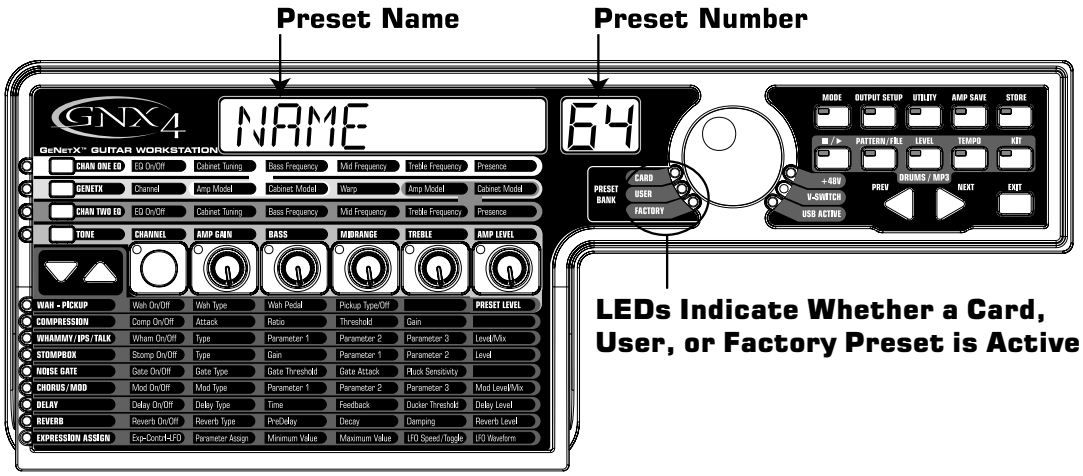
Before applying power to anything, set your amp(s) to a clean tone and set the tone controls to a flat EQ response (on most amps, this would be 0 or 5 on the tone controls). Then do the following:

1. Turn your amp volume all the way down.
2. Pull the mixer's master faders all the way down.
3. Turn the GNX4's Output Level knobs all the way down (fully counter-clockwise).
4. Connect the plug of the PSS3 power supply to the GNX4's Power Jack. Connect the other end of the PSS3 power supply to an AC outlet.
5. Turn the GNX4's power on.
6. Turn your amplifier(s) on and adjust the volume(s)to a normal playing level.
7. Push the mixer's master faders up to the desired listening level.
8. Gradually increase the GNX4's Output Levels to the desired listening level.



Presets

A preset is a named and numbered location of a programmed sound that resides in the GNX4. Presets can be recalled with the **Footswitches** or the **DATA WHEEL**. The GNX4 comes with 80 Factory and 80 User presets. The Factory Presets do not let you store changes to them. The User presets let you store changes. From the factory, the 80 User presets are exact duplicates of the 80 Factory presets. This lets you create your own presets without worrying about losing any of the original presets. When you select a preset, the name of the preset appears in the green display and the number of the preset appears in the red numeric display. The User LED to the left of the **DATA WHEEL** lights indicating the User preset is active. The Factory LED lights indicating a Factory preset is active and the Card LED lights indicating a preset from a Compact Flash® Memory Card inserted into the GNX4's Memory Card slot is active.



Footswitch Modes

When you first apply power to the GNX4, it powers up in one of three Footswitch Modes: **Preset**, **Stompbox/Control**, or **Recorder**. The Footswitch Modes are selected in two different ways:

Press the **MODE** button (located to the right of the **DATA WHEEL**)

Or

Press and hold **Footswitches 4 and 5** simultaneously.

Depending on which mode is selected, the **UP/DOWN** footswitch LEDs will light a different color. When **Preset Mode** is selected, the **UP/DOWN** footswitches will be lit green. When **Stompbox/Control Mode** is selected, the **UP/DOWN** footswitches will be lit yellow. And when **Recorder Mode** is selected, the **UP/DOWN** footswitches will be lit red. In any of the modes, the display shows the selected preset's name and number. The vertical LEDs on the Matrix indicate which effects are active for the selected preset.

Preset Mode

The GNX4's Presets are grouped into sixteen banks of five presets. (See the **Preset List** on page 112 for a complete list of Presets with their respective Bank locations.) When **Preset Mode** is active the **UP/DOWN** footswitches are used to select one of the sixteen Factory, User, or Card Banks. Successive presses of the **UP/DOWN** footswitches advances through all Factory/User/Card Banks. Pressing and holding the **UP/DOWN** footswitches scrolls through the Factory/User/Card Banks. Once a Bank is selected, **Footswitches 1-5** will flash indicating a preset within that bank needs to be selected. If a preset is not selected within 5 seconds, the GNX4 returns to the currently selected bank and preset. A second press of the same footswitch bypasses the preset. Another press reactivates the preset.

About the GNX4

Preset Bounceback

If you would rather not bypass individual presets in **Preset Mode** by pressing their footswitches repeatedly, you can enable the Preset Bounceback function in the Utility menu. For example, let's say you select Preset 1 using **FOOTSWITCH 1** as your rhythm tone. Then you select Preset 4 using **FOOTSWITCH 4** as your solo tone. You can now press **FOOTSWITCH 4** again and Preset 1 will be selected again. Pressing **FOOTSWITCH 4** repeatedly will bounceback between Preset 4 and Preset 1. To enable the Preset Bounceback feature, do the following:

1. Press the **UTILITY** control panel button and use the **PREV/NEXT** arrow buttons to locate the Bounceback feature. The display will read BOUNCBAK.
2. Rotate the **DATA WHEEL** to turn the BounceBack feature on.
3. When finished press the **EXIT** button.

NOTE: The Preset Bounceback feature only works when the GNX4 is in Preset Mode.

For more information regarding the footswitch functions for **Preset Mode** see page 59.

Stompbox/Control Mode

Stompbox/Control Mode is another mode of operation that can be used during a performance. When Stompbox/Control Mode is active, the **UP/DOWN** footswitches are used to select the GNX4's presets. Footswitches 1-4 turn the effects on and off. Footswitch 5 is used as a Tap-Tempo switch for setting the delay time during a live performance.

For more information regarding the footswitch functions for **Stompbox/Control Mode** see page 60.

Recorder Mode

When **Recorder Mode** is active, the GNX4's **UP/DOWN** footswitches are used for selecting songs and loops that reside in the recorder's memory. The 1-5 footswitches are used for hands-free control of the recorder's functions.

For more information regarding the footswitch functions for **Recorder Mode** see page 61.

Expression Pedal

The Expression Pedal can control three different parameters simultaneously in each preset. Rock the Expression Pedal back and forth to change the values of the assigned parameters. Each parameter the Expression Pedal controls has an adjustable minimum and maximum range. The Expression Pedal also includes a feature called V-Switch and when enabled, it turns on the wah effect and switches from controlling the parameters assigned to the Expression Pedal and controls the Wah. See page 45 for more information on **Expression Pedal Pedal Assignment**.

Bypass

The GNX4 presets can be bypassed for a clean, unprocessed guitar tone. Bypass turns off all effects and modeling. To bypass the GNX4 in **Preset Mode**, press the active preset's Footswitch (the 1-5 footswitch that is lit), or press **Footswitches S 2** and **3** simultaneously. To bypass the GNX4 while in **Stompbox/Control** or **Recorder Mode**, press **Footswitches 2** and **3** simultaneously. When the GNX4 is bypassed, the display reads BYPASS and all LEDs in the Matrix are off. Press any Footswitch to exit Bypass and return to the last preset. The Matrix and Programming buttons do not function when Bypass is activated.

NOTE: If Preset Bounceback is enabled in the Utility menu, pressing the active preset's footswitch while in Bank Mode will not bypass the GNX4's effects. To bypass the GNX4's presets while Preset Bounceback is enabled you must press Footswitches 2 and 3 simultaneously.

Tuner

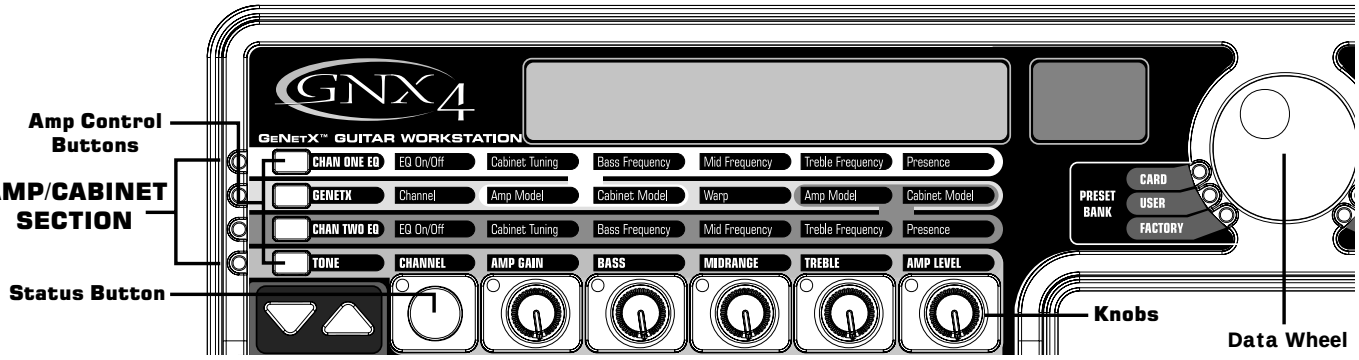
The Tuner in the GNX4 lets you quickly tune or check the tuning on your guitar. Press **Footswitches 3** and **4** simultaneously to access the Tuner. The display briefly flashes TUNER. To begin tuning, play a note on your guitar (a harmonic at the 12th fret usually works best). The red numeric display shows the note being played, and the green alpha-numeric display indicates whether the note is sharp or flat. Arrows to the left (‹‹‹) indicate the note is sharp and should be tuned down. Arrows to the right (›››) indicate the note is flat and should be tuned up. When your note is in tune, --› ‹-- is displayed.

While the tuner is selected, you can set your tuning reference with the **DATA WHEEL**. The default factory setting is A=440 Hz. The tuning references range from 427 Hz to 453 Hz (± 50 cents (1/2 semitone) from either direction of 440 Hz). Below 427 Hz, are alternate dropped tunings. The alternate tunings are REF A(A=Ab), REF G(A=G), and REF G(A=Gb). The display window briefly flashes the selected tuning preference.

GNX4 Matrix Functions

The GNX4 Matrix

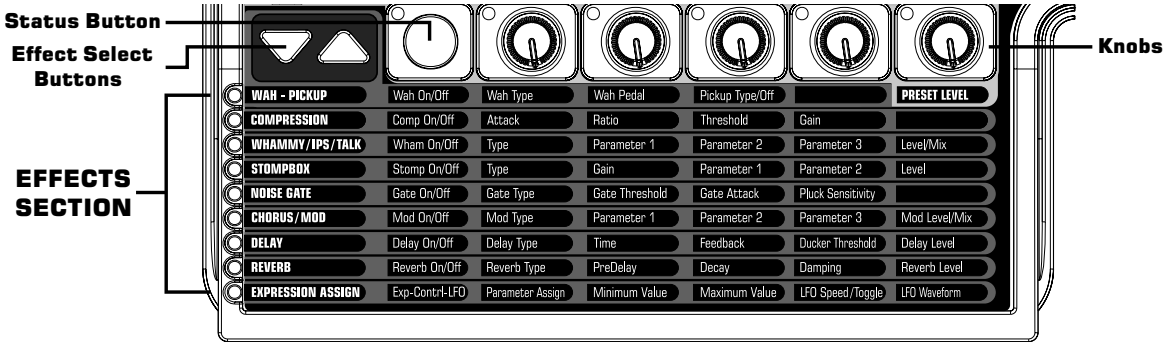
The main panel of the GNX4 is the Matrix. The Matrix is comprised of two main sections, **Amp/Cabinet** and **Effects**. It is used to navigate through the GNX4's amp/cabinet modeling and effects parameters. Upon power up, the GNX4 defaults to the **TONE** amp control row in the **Amp/Cabinet** section and any effects that are enabled within a preset will have their corresponding LEDs lit in the **Effects** section of the Matrix. You can select one of the other three Amp Control rows, **CHAN 1 EQ**, **GENETX,** or **CHAN 2 EQ** using the **Amp Control Buttons** or you can select the different effects and their parameters using the **Effect Select buttons**. The LED to the left of each row indicates which row is active, while the **Status Button** and five **Knobs** control the corresponding parameter above or below each knob.



Viewing/Editing GENETX™ and Amp Parameter Values

To view or edit an amp parameter's current value, you must first select the row in which the parameter resides using the **Amp Control** buttons located to the left of the amp parameter rows. After selecting the desired row, use the **Status Button** and **Knobs** to adjust the parameters. When turning a knob one click position the current value of the selected parameter will show in the display. If a **Knob** is turned again within 3 seconds, the parameter value will be changed. If a **Knob** is not turned within 3 seconds, the main display returns back to the preset name.

NOTE: If a parameter name is shown in the display while editing both Amps and Effects, the DATA WHEEL can change the value as well as the Knobs.



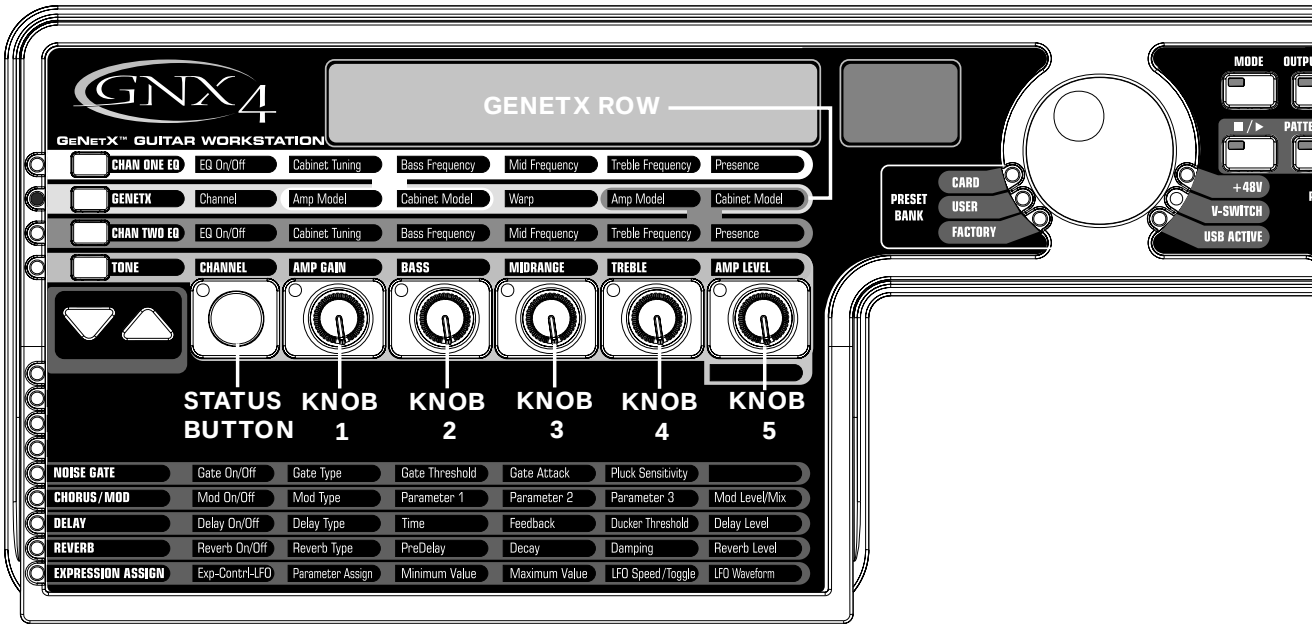
Viewing/Editing Effect Parameter Values

To view or edit an effect parameter's current value, you must first select the row in which the desired parameter resides by using the **Effect Select Buttons**. They are located to the left of the **Status Button**. After selecting the desired effect, use the **Status Button** and **Knobs** to adjust the effect's individual parameters. Parameter adjustments will show in the displays as edits are made. To exit effect editing, press the **EXIT** button in the Control Panel.

NOTE: If a parameter name is shown in the display while editing both Amps and Effects, the DATA WHEEL can change the value as well as the Knobs.

GNX4 Matrix Functions

GENETX Row



The **GENETX** row is where amp and cabinet models are selected for the current preset. It is also where the Warp function resides allowing GeNetX™ warping between the two amp models. When the **GENETX** row is selected, the **Knobs** and **Status Button** perform the following functions:

STATUS BUTTON

Selects between Amp Channel 1 (Green) and Amp Channel 2 (Red) and lets you hear each channel independently, or if a Warped state (Yellow) between both channels exists, this button selects it and lets you hear the warped amp. The Status Button's LED will light Green, Red, or Yellow depending on which channel is selected.

KNOB 1

Selects the Channel 1 (Green) amp model and the LED for Knob 1 is lit green.

KNOB 2

Selects the Channel 1 (Green) cabinet model and the LED for Knob 2 is lit green.

KNOB 3

Warps the Channel 1 and Channel 2 amp and cabinet models together. Setting this knob to its minimum position selects Channel 1's amp and cabinet only and the LED for Knob 3 is lit green. Setting this knob to its maximum position selects Channel 2's amp and cabinet only and the LED for Knob 3 is lit red. Setting Knob 3 to any other position selects a warped state, a combination of Channel 1 and 2's amp and cabinet models and the LED will be lit yellow.

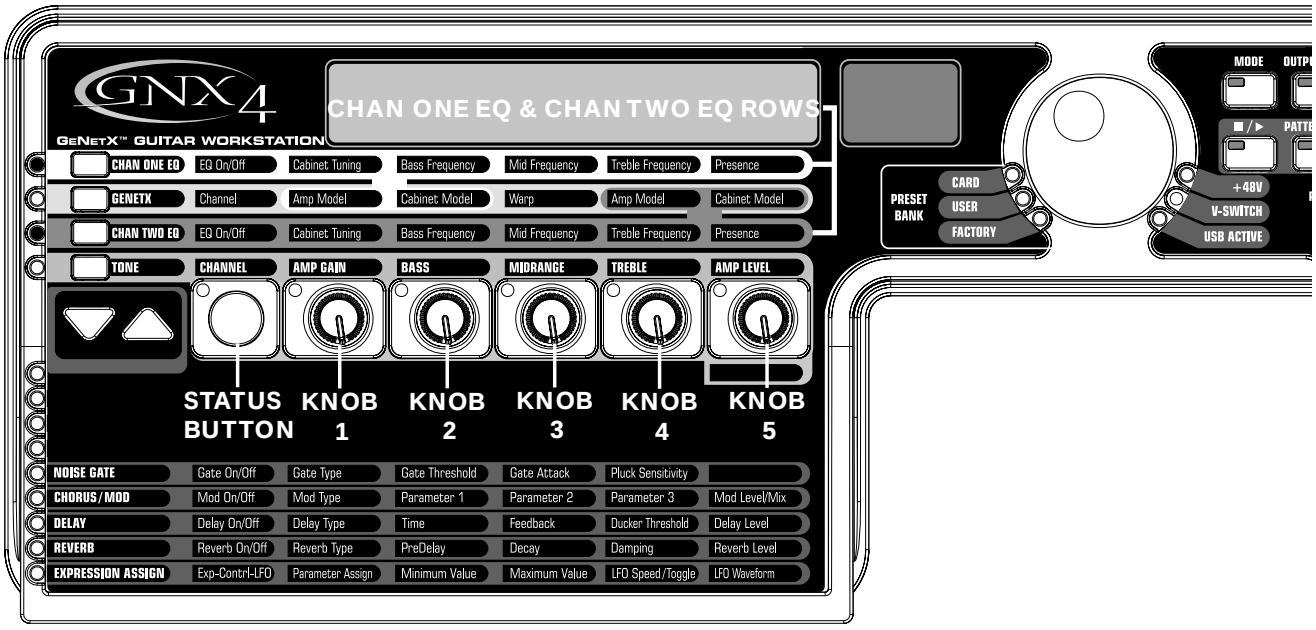
KNOB 4

Selects the Channel 2 (Red) amp model and the LED for Knob 4 is lit red.

KNOB 5

Selects the Channel 2 (Red) cabinet model and the LED for Knob 2 is lit red.

CHAN ONE EQ and CHAN TWO EQ Rows



The **CHAN ONE EQ and CHAN TWO EQ** rows are used for modifying the center frequencies of the Bass, Midrange, and Treble controls of that reside within the **TONE** Row. A Presence control is available here for editing amp tone as well. There is also a Cabinet Tuning control for changing the tuning of a selected channel's cabinet resonance. When either the **CHAN ONE EQ** or **CHAN TWO EQ** row is selected, the knobs and **STATUS** button perform the following functions:

STATUS BUTTON
Turns the EQ on and off for the selected channel.

KNOB 1
Adjusts the Cabinet Tuning resonance of the cabinet model for the selected channel. The Cabinet Tuning ranges are from one octave below (-120) to one octave above (120).

KNOB 2
Selects the Bass Center Frequency for the selected channel. The Bass Center Frequency range is from 50Hz (50) to 300Hz (300).

KNOB 3
Selects the Midrange Center Frequency for the selected channel. The Midrange Center Frequency range is from 300Hz (300 HZ) to 5000Hz (5000 HZ).

KNOB 4
Selects the Treble Center Frequency for the selected channel. The Treble Center Frequency range is from 500Hz (500 HZ) to 8000Hz (8000 HZ).

KNOB 5
Boosts or cuts the Presence Level for the selected channel. The Presence Control is a shelf EQ and has a fixed frequency of 7500Hz. The Presence Level range is from -12dB (-12) to 12dB (12).

GNX4 Matrix Functions

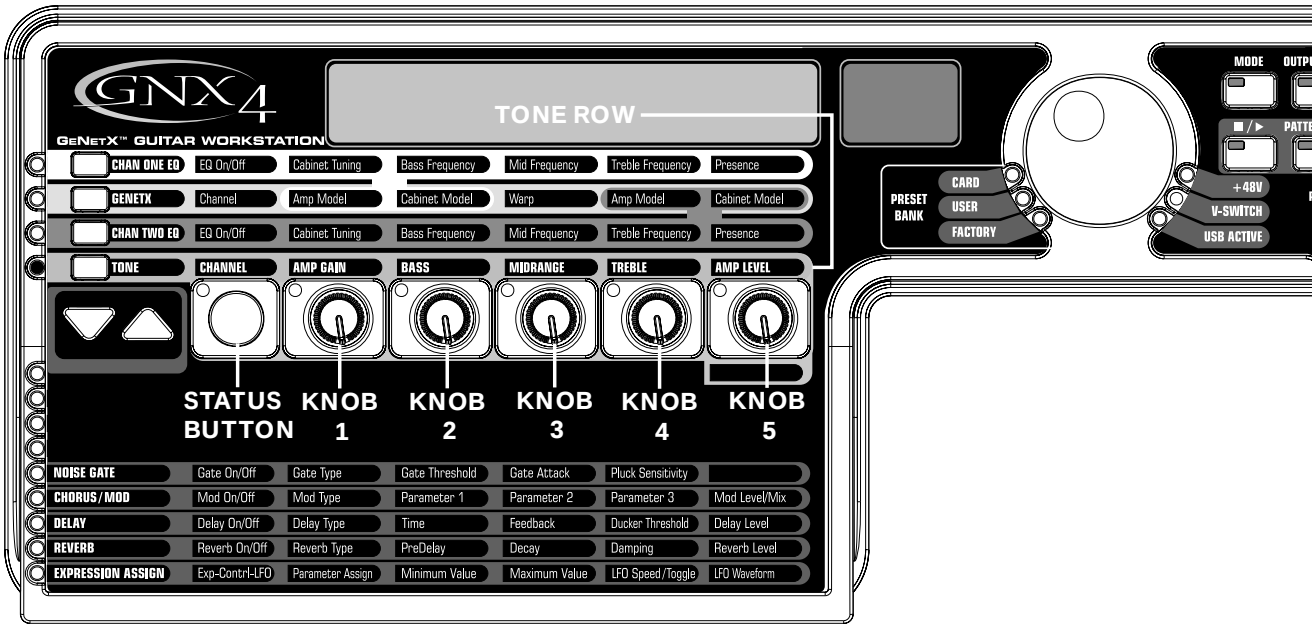
Here is an example of how the **CHAN ONE EQ** row would function when the button is pressed:

Warped Amp Sound being heard:
If the sound being heard is a Warped sound of both amp models, pressing the **CHAN ONE EQ** button selects the knobs to control the **CHAN ONE EQ's** row of parameters. The **STATUS** button LED will light yellow, indicating a Warped sound is being heard, and the knobs will all light green. You can modify the **CHAN ONE EQ** row parameters which will be heard as the knobs are turned. The **STATUS** button will turn the **CHAN ONE EQ** on or off and indicate this status by turning the button LED on and off.

CHAN ONE amp sound being heard:
If the sound being heard is the **CHAN ONE** amp tone, pressing the **CHAN ONE EQ** button selects the knobs to control **CHAN ONE EQ's** row of parameters. The **STATUS** button and the knobs will light green. You can modify the **CHAN ONE EQ** row parameters, which can be heard as the knobs are turned. The **STATUS** button will turn the **CHAN ONE EQ** on or off and indicate this status by turning the button LED on and off.

CHAN TWO amp sound being heard:
If the sound being heard is the **CHAN TWO** amp tone, pressing the **CHAN ONE EQ** button selects the knobs to control the **CHAN ONE EQ's** row of parameters. The **STATUS** button will be lit red indicating you are still listening to the **CHAN TWO** amp tone. The knobs however will be lit green and once any of them are turned, the sound will change from the **CHAN TWO** amp tone to the **CHAN ONE** amp tone. You can then modify the **CHAN ONE EQ** parameters and these changes can be heard as the knobs are turned. The **STATUS** button will also turn green at this time and can be used to turn the **CHAN ONE EQ** on or off as will be indicated by the button's LED turning on and off.

TONE Row



The **TONE** row is where the amp tone controls are located for Channel 1 or Channel 2. The sound that you hear while adjusting these parameters will depend on the channel status (see chart below). TONE control row parameters are Channel, Amp Gain, Bass, Midrange, Treble, and Amp Level.

STATUS BUTTON

Selects one of the four channel states in the following order:

CH1 AMP -The status button LED lights green and the five control knobs light green indicating that you are listening to Channel 1 and the control knobs affect Channel 1's tone settings.

CH1 WARP -The status button LED lights yellow and the five control knobs light green indicating that you are listening to a warped sound and the control knobs affect Channel 1's tone settings.

CH2 AMP -The status button LED lights red and the five control knobs light red indicating that you you are listening to Channel 2 and the control knobs affect Channel 2's tone settings.

CH2 WARP -The status button LED lights yellow and the five control knobs light red indicating that you are listening to a warped sound and the control knobs affect Channel 2's tone settings.

KNOB 1

Controls the amount of Amp Gain. The Amp Gain range is from 0 to 99.

KNOB 2

Controls the Bass EQ Level (boost/cut). The Bass EQ Level range is from -12dB (-12) to 12dB (12).

KNOB 3

Controls the Midrange EQ Level (boost/cut). The Midrange EQ Level range is from -12dB (12) to 12dB (12).

KNOB 4

Selects the Treble EQ Level (boots/cut). The Treble EQ Level range is from -12dB (-12) to 12dB (12).

KNOB 5

Controls the Amp Level. The Amp Level Range is from 0 to 99.

Amp/Cabinet Modeling

Amp/Cabinet Modeling

The GNX4 was designed to make sound processing easy and intuitive. Because the GNX4 provides both Amp Modeling and Effects Processing, the editing functions are divided into two sections: the Amp/Cabinet Modeling section and the Effects section. The GeNetX™ technology contained in the GNX4 lets you go much further than mere Amp Modeling. GeNetX lets you create your own Amp/Cabinet HyperModel™ and store this custom creation to a User Amp/Cabinet location. When editing either the Amp/Cabinet Modeling, or the Effects section, you must start with one of the User or Factory Presets. The preset you begin with does not need to be in the location that you intend to save it.

After selecting a preset, you can select the Amp Models or Cabinet Types for your preset. Amp/Cabinet Modeling applies the tone of one of several vintage or modern Amp Models and Cabinet Types to your guitar signal. The GNX4 includes accurate emulations of 15 guitar Amp Models, 10 Bass Amp Models, one Acoustic Guitar Simulation, and 22 Speaker Cabinet Types. Your choices include:

Amp Models

Direct	DIRECT	1	Turns the amp modeling off
Guitar Amps	BLACKFAC	2	Based on a '65 Fender Twin Reverb
	BOUTIQUE	3	Based on a Matchless DC30
	RECTFIED	4	Based on a Mesa Dual Rectifier
	HOT ROD	5	Based on a Mesa Boogie Mark II C
	TWEED	6	Based on a '57 Fender Tweed Deluxe
	BRITCMBO	7	Based on a Vox AC30 top boost
	CLEANTUB	8	A clean tube combo setting
	BRITSTCK	9	Based on a '78 Marshall Master Volume
	CRUNCH	10	A nice crunchy tube amp combo
	HI GAIN	11	A high gain tube amp
	BLUES	12	A sweet, tube, blues tone
	MDRNGAIN	13	Based on a Marshall JCM900
	FUZZ	14	A high gain fuzz distortion
	BASS MAN	15	Based on a Fender Bassman
	HIWATTAG	16	Based on a HiWatt 50 watt stack
Acoustic	ACOUSTIC	17	A flat top acoustic guitar
Bass Amps	ROCKBASS	18	Based on an Ampeg SVT
	MDRNBASS	19	Based on an Ashdown ABM-C410H
	BRITBASS	20	Based on a Trace-Elliot Commando
	SOLAR	21	Based on a Sunn 200S
	VINTAGE	22	Based on a '69 Ampeg SVT Classic
	BOMBER	23	Based on a Ampeg B15
	BASIC	24	Based on a SWR Basic Black
	DUALSHOW	25	Based on a Fender Dual Showman
	BOOGIMAN	26	Based on a Mesa Boogie Bass 400+
	HARTKEY	27	Based on a Hartke Model 2000
User	EMPTY	U1 to U9	User HyperModel Locations

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Cabinet Types

Direct	DIRECT	1	Turns the cabinet modeling off
Guitar Cabinets	AMER2x12	2	Based on an American 2x12
	BRIT4x12	3	Based on a British 4x12
	VNTG4x12	4	Based on a Vintage 30 4x12
	BRIT2x12	5	Based on a British 2x12
	TWED1x12	6	Based on an American 1x12
	BLND2x12	7	Based on a Blonde 2x12
	FANE4x12	8	Based on a Fane 4x12
	GRNB4x12	9	Based on a Greenback 4x12
	BOTQ4x12	10	Based on a Boutique 4x12
	AMER4x10	11	Based on a Bassman 4x10
	65 1x12	12	Based on a '65 Tweed 1x12
	JAZZ1x15	13	Based on a Fender Pro 1x15
Bass Cabinets	BASS1x15	14	Based on an Ampeg Portaflex
	BASS4x10	15	Based on an Ashdown 4x10 w/Tweeter
	BASS2x15	16	Based on a Sunn 200S 2x15
	FOLD1x18	17	Based on a Acoustic 360
	HART1x15	18	Based on a Hartke 1x15
	BASIC 15H	19	Based on a SWR Basic Black
	VNTG8x10	20	Based on an Ampeg 8x10
	ASH 4x10	21	Based on an Ashdown ABM 410
	GLTH4x10	22	Based on an SWR Goliath III
	HART4x10	23	Based on a Hartke 4x10
User	EMPTY	U1 to U9	User Locations

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Editing Amp Models and Cabinet Types

Each GNX4 preset has three channels, Channel 1 (green), Channel 2 (red), and Warp (yellow). Amp channels 1 and 2 have selectable amps and cabinets. Each channel has independent controls for gain, level, EQ, and cabinet tuning. The Warp channel is effectively a mixture of the Channel 1 and 2 amps and cabinets using the Warp knob in the Amp Controls section of the matrix. When parameter values have changed, the Store LED lights indicating the preset has been modified and needs to be stored (see page 58 for more on the storing procedure).

Once you have selected your amps for Channel 1 and 2, you can switch between these, as well as the Warp channel, using the Amp Channel footswitch (Stompbox/Control Mode only) or the Status button (GeNetX row is active) when the preset name is displayed. The following sections guide you through the process of selecting amps and cabinets, adjusting amp parameters, performing cabinet tuning, and creating then saving a Hypermodel™ Amp.

Amp/Cabinet Modeling

Selecting Amp Models and Cabinet Types

The first step to editing an Amp, Cabinet Type, or creating your own HyperModel is to select the Amp and Cabinet types for Channel 1 and Channel 2 in your preset. The procedure for selecting Amps or Cabinets is as follows:

1. Press the **GENETX** Amp Control button.
2. Use **Knob 1** to select the Amp for Channel 1. The Amp name appears in the display. (See page 30 for a complete list of **Amp Models**.)
4. Use **Knob 2** to select the Cabinet for Channel 1. The Cabinet name appears in the display. See page 31 for a complete list of **Cabinet Types**.)
5. Use **Knob 4** to select the Amp for Channel 2. The Amp name appears in the display.
6. Use **Knob 5** to select the Cabinet for Channel 2. The Cabinet name appears in the display.

Adjusting Amp Parameters

The Gain, EQ, and Level Parameters can be adjusted individually for the Channel 1 and Channel 2. This is accomplished by pressing the **TONE** Amp Control button. The sound that you hear while adjusting the knobs depends on the state of the **Status Button** and the **Knobs** (see chart below). When the **TONE** row is selected, the **Status Button** steps through four states in the following order:

CH1 AMP -The status button LED lights green and the five control knobs light green indicating that you are listening to Channel 1 and the control knobs affect Channel 1's tone settings.

CH1 WARP -The status button LED lights yellow and the five control knobs light green indicating that you are listening to a warped sound and the control knobs affect Channel 1's tone settings.

CH2 AMP -The status button LED lights red and the five control knobs light red indicating that you you are listening to Channel 2 and the control knobs affect Channel 2's tone settings.

CH2 WARP -The status button LED lights yellow and the five control knobs light red indicating that you are listening to a warped sound and the control knobs affect Channel 2's tone settings.

The Gain ranges from 0 (0) to 99 (99). The Bass, Midrange, and Treble EQ range from -12 db(-12) to +12db (12). The Level ranges from 0 (0) to 99 (99). The procedure for adjusting these parameters is as follows:

1. Press the **TONE** Amp Control button.
2. Press the **STATUS** button to select either Channel 1 Amp (Green) or Channel 2 Amp (Red).
3. Use **Knobs 1** through **5** to adjust the Gain, Tone, and Level of the selected amp channel.

Cabinet Tuning

Cabinet tuning actually changes the resonant frequency of the selected cabinet. This is useful for changing the tonality of your sound without having to touch the EQ parameters. Tuning down gives the sound more bottom end while tuning up enhances higher frequencies. The procedure for tuning the cabinets is as follows:

1. Press the **CHAN ONE EQ** or the **CHAN TWO EQ** Amp Control button to access the Cabinet Tuning parameters.
2. Use **Knob 1** to adjust the Cabinet Tuning resonance. The Cabinet Tuning ranges are from -120 (one octave below) to 120 (one octave above) the cabinet's standard resonance.

Storing Amp Parameter Edits

Once you are satisfied with your amp edits, these changes need to be stored so that they can be recalled later. See page 58 for more information on storing changes to a preset.

Creating HyperModels™

Creating new, unique HyperModels is what GeNetX™ is all about. Once both channels Amps and Cabinets are selected and the Amp Parameters and Cabinet Tunings have been adjusted, GeNetX technology lets you do something amazing. The characteristics of each Amp and Cabinet can be combined or "Warped" to create a completely new HyperModel Amp. The procedure for Warping the Channel 1 and Channel 2 Amps together is as follows:

1. Press the **GENETX** amp control button.
2. Rotate **Knob 3** to Warp the Channel 1 and Channel 2 Amps and Cabinets together. Rotating it counter-clockwise emphasizes the Channel 1 characteristics while rotating it clockwise emphasizes the Channel 2 characteristics. A warp value of 1 produces the amp tone of only the Channel 1 (Green) Amp. A warp value of 99 produces the amp tone of only the Channel 2 (Red) Amp.

Saving HyperModels (Amp Save)

When you have found your ideal warp setting for Channel 1's and Channel 2's Amp Models, you can save this sound as a HyperModel for future use. This HyperModel can be saved in one of 9 User locations. After it has been saved, it can now be selected by either Amp Channel as the starting point for a new Hypermodel. The Amp Save procedure is as follows:

1. Press the **AMP SAVE** button. The **AMP SAVE** button will begin flashing and the display will read NEWAMP. The N of NEWAMP is flashing indicating that you can name your HyperModel.
2. Use the **DATA WHEEL** to select the alpha-numeric character.
3. Use the **NEXT button** to move to the next character (to the right), or the **PREV button** to select the previous character (to the left).
4. Repeat steps 2 and 3 you have finished naming the new HyperModel.
5. Press the **AMP SAVE** button again to select one of the 9 User HyperModel locations. If the GNX4 has any unused HyperModel locations available, the display will read U1. The U1 flashes indicating that this is the first available location for HyperModel to be stored. If all 9 HyperModel locations are full, the GNX4 defaults to the first HyperModel location and displays the name of HyperModel stored in the first location.
6. Use the **DATA WHEEL** to select a User location to save the HyperModel. If all locations have been used, the display shows the name of the HyperModel about to be overwritten.
7. Press the **AMP SAVE** button again to complete the Amp Save procedure.

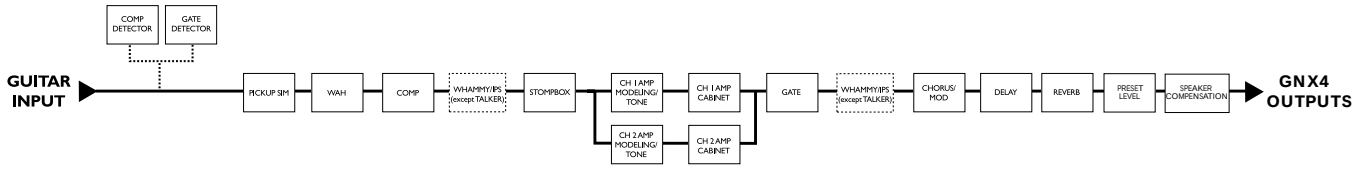
Press the **EXIT** button at any time during the Amp Save procedure to abort the process.

NOTE: The Amp Save procedure only saves Amp/Cabinet combinations to the User HyperModel locations. It does not store changes or the new HyperModel to the selected preset. See page 58 for information on storing changes to a preset.

Effects and Parameters

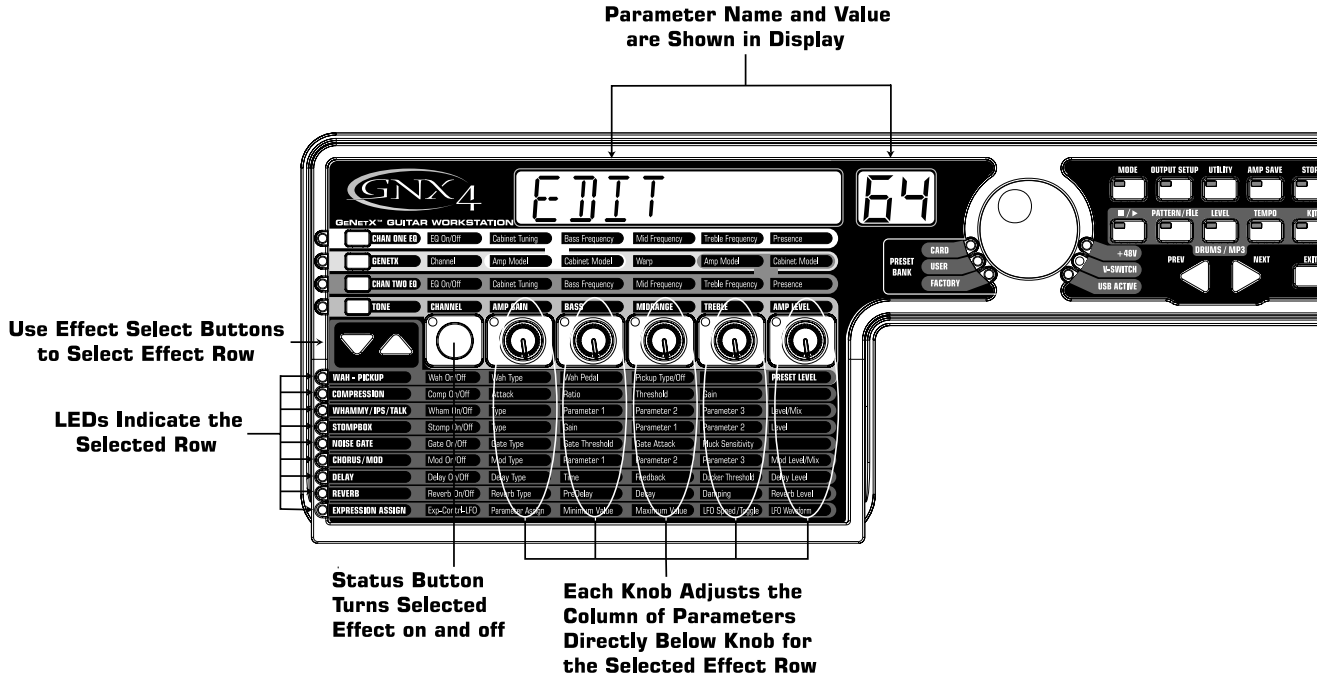
Effects and Parameters

The GNX4 features a comprehensive set of effects for creating just the sound you need for any musical application. These effects are connected in a standard effects chain with pickup simulator, wah, compressor, Whammy™/IPS, and distortion stompbox effects placed before the amps. Effects placed post amp are those that typically sound best when heard in stereo like modulation effects, delay and reverb. The following diagram show the signal path through the effects of the GNX4:



Editing a Preset's Effects

The Effects section is accessed with the **Effect Select Up/Down** buttons. The Matrix LEDs light one at a time to identify the selected row of effects . Each effect has up to 5 Parameters that can be edited. Pressing the **Status Button** turns the effect row on and off. The 5 knobs control the Parameters listed directly beneath the corresponding knob. Each effect's parameter is labeled in the Matrix. When a knob is turned, the corresponding parameter name and value appear in the displays.



Rotating the **Knobs** increases or decreases the value of the parameter (except for Type which selects different effect types) and you hear the change in real time. Changing presets, or turning the power off before storing any changes will erase your changes and revert to the stored values. When the preset has been edited, the **Store** LED turns on indicating that a change has been made. You may store your settings to any of the 80 User Preset locations or on to an optional compact flash card.

Effect Definitions

Each Effect within the GNX4 is fully programmable. Understanding how these effects modify the sound, and how each parameter alters the effect will help you achieve the sound you are looking for. The following overview outlines how each effect and parameter in the GNX4 works.

Preset Levels

The GNX4 presets each have an independent level control for quick balancing of the levels between presets. Preset Level is accessed by selecting the **Wah – Pickup** row of the Matrix using the **Effect Select** buttons and then adjusting **Knob 5**. The Preset Level adjusts the overall output gain of the active Preset and the range is from 0 to 99. Preset Level changes need to be saved and stored to a user preset location just as any other effect changes. See page 58 for more information on **Storing a Preset**.

Wah-Pickup

A Wah is an effect controlled by the Expression Pedal. A Wah applies a boost in gain to a narrow band of frequencies. As the Expression Pedal is rocked back and forth, the center frequency receiving the boost is swept up and down making the guitar sound as if it is saying "Wah". The Wah is engaged and disengaged by applying pressure to the V-Switch located under the toe of the Expression Pedal. See page 104 for more information regarding the **V-Switch**.

The Pickup Simulator applies the warmth and thickness of a double coil humbucker pickup to a single coil guitar, or the unique, crisp sound of a single coil pickup to a guitar with a humbucker. This allows you to have the best of both worlds without ever changing guitars.

Wah On/Off - The **Status button** (or the V-Switch) turns the Wah (WAH) on and off.

Wah Type - Knob 1 selects the type of Wah. Values include: Cry Wah (CRY) is a traditional sounding Wah, Boutique Wah (BOUTIQUE) is a wide sweeping Wah with a more modern sound and Full Range Wah (FULLRANG) sweeps the entire spectrum of audible frequencies.

Wah Pedal - Knob 2 controls the pedal (WAH PDL) parameter that adjusts the wah sweep when the wah is active. The wah sweep range is from 0-99. The Expression Pedal is automatically linked to this parameter when the V-Switch is engaged. To adjust the minimum and maximum range, see the **Expression Pedal** section on page 45.

Pickup Type/Off - Knob 3 selects the type of Pick Up to be be simulated. Values include: Pickup Simulator Off (PICK OFF), Single Coil>Humbucker (SC>HUMB) gives a single coil pick up the warm tone of a humbucker, and Humbucker>Single Coil (HUMB>SC) gives a humbucker the unique sound of a single coil.

Knob 4 has no function when the Wah-Pickup is selected.

Preset Level - Knob 5 adjusts the overall preset level. Ranges from 0-99.

Compressor

A compressor is used to increase sustain, and even out the volume dynamics in guitar signal. A compressor sets boundaries for a signal's strength. When a signal exceeds the set boundary, it is forced back into the set boundary. As the signal fades to a point where it no longer exceeds the boundary, the compressor expands the signal strength and increases sustain. The compression parameters are as follows:

Comp On/Off - The **Status button** turns the Compressor (COMPRESS) on and off.

Attack - Knob 1 adjusts the length of time it takes for the Compressor to respond to a signal exceeding the Threshold. Values include: FAST, MEDIUM, and SLOW .

Ratio - Knob 2 adjusts the input to output ratio once the Threshold has been exceeded. For instance, a Ratio of 4 to 1 means that a signal exceeding the Threshold by 4 dB will only be allowed 1 dB of increased output. Higher settings yield a tighter, sound and increase sustain. Lower settings allow

better dynamics. Ratio settings are: 1.2:1 (1.2-1), 1.5:1 (1.5-1), 1.8:1 (1.8-1), 2:1 (20-1), 2.5:1 (25-1), 3:1 (30-1), 4:1 (40-1), 5:1 (50-1), 8:1 (80-1), 10:1 (10-1), 20:1 (20-1), and Infinity:1 (INFNTY-1).

Threshold - Knob 3 selects the Threshold (THRESHLD). The Threshold is the level a signal is allowed to reach before the compressor begins to work. Low Threshold settings activate the compressor with weaker signals. Higher settings require a stronger signal to activate compression. Ranges from 0 to 99.

Gain - Knob 4 adjusts the Output Gain (CMP GAIN) from the Compressor. This parameter is used to balance the level of the Compressor to reach unity gain. Other effects can clip if the Compressor Gain too high. Ranges from 0 to 20(dB).

Knob 5 has no function when the Compressor is selected.

Whammy™/IPS/Talk

This module includes four types of pitch altering effects: Whammy, IPS, Detune, Pitch Shift, and the Talker™ effect. Only one of the effects in this row can be used at a time. After selecting the type of effect in this module, the **Knobs 2-5** can then be used to adjust the individual parameters associated with the selected effect. The following pages describe each effect and their parameters in more detail.

Whammy/IPS/Talk On/Off - When the Whammy/IPS/Talk effects module is selected the **Status button** turns the Whammy/IPS/Talk effects on and off.

Whammy/IPS/Talk Select - Knob 1 selects whether the module is a Whammy (WHAMMY), Intelligent Pitch Shifting (IPS), Detuner (DETUNE), Pitch Shift (PITCH), or Talker (TALKER 1-5).

Whammy

Whammy is an effect that uses an Expression Pedal to bend the pitch of the incoming signal, or add a bendable harmony with the original signal. As the Pedal is moved, the note bends either up or down. When Whammy is selected, it is automatically placed before the Amp Modeling as shown in the block diagram (see page 34). The Whammy effect must be linked to the Expression Pedal in order to function. See page 45 for more information on linking the **Expression Pedal**.

Parameter 1 - Knob 2 selects the interval and direction of the pitch bend. Choices are as follows:

Whammy (no Dry Signal)	
1 OCT UP	(1 octave up)
2 OCT UP	(2 octaves up)
2ND DOWN	(a second down)
REV 2ND DN	(a second down reversed pedal action)
4TH DOWN	(a fourth down)
1 OCT DN	(an octave down)
2 OCT DN	(2 octaves down)
DIVE BOMB	(Dive Bomb)

Harmony Bends (Dry Signal Added)	
M3->MAJ3	(a minor third to a Major third)
2ND->MAJ3	(a second above to a Major third up)
3RD->4TH	(a third above to a fourth up)
4TH->5TH	(a fourth above to a fifth up)
5TH->OCT	(a fifth above to an octave up)
H OCT UP	(one octave up)
H OCT DN	(one octave down)
OCTUP->DN	(one octave up to one octave down)

Parameter 2 - Knob 3 provides a manual control of the Whammy Pedal (WHAM PDL) position. Ranges from 0 to 99.

Knob 4 has no function when the Whammy is selected.

Level - Knob 5 adjusts the Whammy Mix (WHAM MIX) of all of the pitch-altering effects in this module. Ranges from 0 to 99.

Intelligent Pitch Shifting (IPS)

Intelligent Pitch Shifting makes a copy of the incoming signal, and then changes the pitch of the copied note to a diatonically correct interval specified by the Amount parameter. An Intelligent Pitch Shifter sharpens or flattens the shifted pitch in order to keep the specified interval within the selected key and scale creating a true harmony.

Parameter 1 - Knob 2 selects the Amount or harmony interval for the Intelligent Pitch Shifter. Interval choices include:

OCT DOWN	(octave down)	2ND UP	(a second above)
7TH DOWN	(a seventh below)	3RD UP	(a third above)
6TH DOWN	(a sixth below)	4TH UP	(a fourth above)
5TH DOWN	(a fifth below)	5TH UP	(a fifth above)
4TH DOWN	(a fourth below)	6TH UP	(a sixth above)
3RD DOWN	(a third below)	7TH UP	(a seventh above)
2ND DOWN	(a second below)	OCT UP	(an octave above)

Parameter 2 - Knob 3 selects the scale the IPS will use. Scale choices include: Major (MAJOR), Minor (MINOR), Dorian (DORIAN), Mixolydian (MIXOLYDN), Lydian (LYDIAN), Harmonic Minor (HARMINOR).

Parameter 3 - Knob 4 selects the musical key the IPS uses. Key choices range from the Key of E (KEY E) through the Key of Eb (KEY Eb).

Level - Knob 5 adjusts the IPS Level (IPS LEVL) of all the pitch-altering effects in this module. Ranges from 0 to 99.

Detune

A Detuner makes a copy of your incoming signal, takes the copied signal slightly out of tune from the original, and mixes the two signals together. The result is a doubling type of effect as if two guitars were playing the same part together.

Parameter 1 - Knob 2 selects the Amount (AMOUNT) of detuning applied to the copied pitch in cents (100 cents equals 1 semitone). Ranges are from 24 cents below (-24) to 24 cents above (24).

Knob 3 and **Knob 4** have no function when Detune is selected.

Level - Knob 5 adjusts the Detune Level (DTN LEVL) of all pitch-altering effects in this module. Ranges from 0 to 99.

Pitch Shift

A Pitch Shifter copies the incoming signal, then shifts the pitch of the copied note to a different note. The shifted note is then mixed back with the original signal sounding as if two guitars were playing parallel notes.

Parameter 1 - Knob 2 selects the Shift (SHIFT) of the pitch in semitone intervals. Ranges from two octaves below (-24) to two octaves above (24).

Knob 3 and **Knob 4** have no function when Pitch Shift is selected.

Level - Knob 5 adjusts the Pitch Level (PCH LEVL) of all pitch-altering effects in this module. Ranges from 0 to 99.

Talker™

The Talker is an effect that lets your instrument's signal be manipulated by your voice. The Talker requires a microphone be connected to the Mic Input on the rear panel of the GNX4. As you speak into the microphone, your instrument mimics what you say. There are five Talker types.

Effects and Parameters

Type - Knob 1 is used to select one of the 5 Talker types. Talker types range from TALKER 1 (deep tonal characteristics), to TALKER 5 (bright tonal characteristics).

Sensitivity - Knob 2 adjusts the sensitivity of the microphone level (MIC LEVL). The input level from your microphone must be loud enough for the Talker to work properly. If the microphone input is too weak, the Talker will have trouble tracking. If the input is too strong, the Talker will clip making the words unintelligible. Adjust the mic level on the GNX4's rear panel so that the LEDs light, but stay below the the clip level. (See **Optimizing the Mic Input Level** on page 13 for more information regarding mic level adjustment.) The mic level sensitivity ranges are from 0 (least sensitive) to 99 (most sensitive).

Knob 3, **Knob 4**, and **Knob 5** have no function when Talker is selected.

Stomp Box Modeling

The GNX4 Stomp Box Modeling emulates the tones of the most popular distortion boxes ever used including the DOD OD250, Boss DS-1, Arbiter Fuzz Face, Electro Harmonix Big Muff, ProCo RAT, DOD Grunge, Boss Metal Zone, Ibanez TS-9, Voodoo Labs Sparkle Drive, and the Guyatone OD-2*.

*Arbiter, Boss, Electro-Harmonix, ProCo, Ibanez, Voodoo Labs, Guyatone, DS-1, Fuzz Face, Big Muff, RAT, Metal Zone, TS-9, Sparkle Drive, and OD-2 are trademarks of their respective companies and are in no way associated with DigiTech

Stomp Box On/Off - The **Status button** turns the Stomp Box Modeling on and off.

Type - Knob 1 selects the type of Stomp Box to be used. Choices include:

SCREAMER	Based on an Ibanez TS-9	GUY OD	Based on a GuyaTone OD-2
RODENT	Based on a ProCo Rat Distortion	SPARKDRV	Based on a Voodoo Labs SparkleDrive
DS DIST	Based on a Boss DS-1	GRUNGE	Based on a DigiTech® Grunge®
DOD 250	Based on a DOD Overdrive 250	FUZZY	Based on an Arbiter Fuzz Face
BIG MP	Based on the Electro Harmonix Big Muff Pi	ZONE	Based on a Boss Metal Zone

Type	Gain	Param1	Param2	Param3*	Param4*	Level
SCREAMER	DRIVE	TONE				LEVEL
RODENT	DIST	FILTER				VOLUME
DS DIST	DIST	TONE				LEVEL
DOD 250	GAIN					LEVEL
BIG MP	SUSTAIN	TONE				VOLUME
GUY OD	DRIVE					LEVEL
SPARKDRV	GAIN	TONE	CLEAN			VOLUME
GRUNGE	GRNGGAIN	BUTT	FACE			LOUD
FUZZY	FUZZ					VOLUME
ZONE	DIST	MID FREQ	MID LVL	LOW	HIGH	LEVEL

Gain - Knob 2 controls the amount of Gain or distortion in the Stomp Box model. Range is from 0 to 99.

Parameter 1 - Knob 3 acts as a Tone control for each Stomp Box and controls the Mid Frequency of the Zone model. Range is from 0 to 99.

Parameter 2 - Knob 4 acts as a second Tone control for the SparkleDrive, and Grunge Stomp Box models and controls the Mid Level of the Zone model. Range is from 0 to 99.

***Parameter 3 -** Controls the Low Frequency of the Zone model. Range is from 0 to 99.

***Parameter 4 -** Controls the High Level of the Zone model. Range is from 0 to 99.

Level - Knob 5 controls the output level of the Stompbox model. Range is from 0 to 99.

***These Parameters are only available using the X-EDIT™ Editor/Librarian software.**

Noise Gate

A Noise Gate is designed to eliminate hiss and ambient noise while you are not playing. A Noise Gate can also be used to create an automatic swell in volume. The GNX4 includes two different types of Noise Gates: Silencer™ and Pluck. The Silencer™ operates as a standard Noise Gate. The Pluck feature is designed to close after every note (depending on the Pluck Sensitivity). This allows automatic volume swells to occur on a note by note basis.

Gate On/Off - The Status button turns the Noise Gate (GATE) on and off.

Gate Type - Knob 1 selects between the Silencer™ (SILENCER) or Pluck (PLUCK) type of Noise Gates.

Gate Threshold - Knob 2 sets the signal strength required to open or close the Noise Gate. The Gate Threshold (THRESHLD) parameter ranges from 0 (opens easily) to 99 (requires strong signals to open).

Gate Attack - Knob 3 adjusts the length of time it takes the gate to open (ATTACK) and the signal to become audible once the Threshold has been exceeded. Ranges from 0 (immediate signal), to 9 (This setting will gradually ramp up the volume).

Pluck Sensitivity - Knob 4 selects the threshold (PLUCKSNS) where the Gate re-triggers when using the Pluck type Noise Gate. This parameter is only available when Pluck is the selected type of Noise Gate. Ranges from 0 (requires strong signals) to 99 (re-triggers with weak signals).

Knob 5 has no function when the Noise Gate is selected.

Chorus/Mod Effects

The Modulation Effects group is a multi-function module allowing you to select effects such as: Chorus, Flanger, Phaser, Triggered Flanger, Triggered Phaser, Tremolo, Panner, Vibrato, Rotary Speaker, AutoYa™, YaYa™, SynthTalk™, Envelope Filter (auto wah), Detune, and Pitch Shift. Only one of the effects in this row can be used at a time. After selecting the type of effect in this module, the **Knobs 2-5** can then be used to adjust the individual parameters associated with the selected effect. The following pages describe each effect and their parameters in more detail.

Chorus/Mod Effects On/Off - When the Chorus/Mod group is selected, the **Status button** turns the Chorus/Mod Effects module on and off.

Chorus/Mod Effects Select - Knob 1 selects whether the module is a Chorus (CHORUS), Flanger (FLANGER), Phaser (PHASER), Triggered Flanger (TRIGFLNG), Triggered Phaser (TRIGPHAS), Tremolo (TREMOLO), Panner (PANNER), Vibrato (VIBRATO), Rotary (ROTARY), AutoYa (AUTOYA), YaYa (YAYA), SynthTalk (SYNTHTLK), Envelope Filter (ENVELOPE), Detune (DETUNE), Pitch Shift (PITCH).

Chorus

A Chorus adds a short delay to your signal. The delayed signal is modulated in and out of tune and then mixed back with the original signal to create a thicker sound.

Parameter 1 - Knob 2 adjusts the rate (SPEED) of the modulation. Ranges from 0 to 99.

Parameter 2 - Knob 3 adjusts the intensity (DEPTH) of the modulation. Ranges from 0 to 99.

Parameter 3 - Knob 4 adjusts the PreDelay (PREDELAY) or length of time before the Chorus effect is applied to the input signal. Ranges from 1 to 20.

***Parameter 4 -** Selects the waveform used by the Chorus. Waveforms include: Triangle, Sine, and Square. Ranges from 1 to 20.

***Parameter 5 -** Adjusts the left to right balance of the wet signal, Ranges from L 99 to R 99.

Mod Level - Knob 5 controls the level (MOD LEVL) of the Chorus. Ranges from 0 to 99.

***These Parameters are only available using the X-EDIT™ Editor/Librarian software.**

Effects and Parameters

Flanger

A Flanger uses the same principle as a Chorus but has a shorter delay time and adds regeneration (or repeats) to the modulating delay. This results in an exaggerated up and down sweeping motion to the effect.

Parameter 1 - Knob 2 adjusts the rate (SPEED) of the modulation. Ranges from 0 to 99.
Parameter 2 - Knob 3 adjusts the intensity (DEPTH) of the Modulation. Ranges from 0 to 99.
Parameter 3 - Knob 4 adjusts the amount of feedback (REGEN) added to the Flanger delay. Ranges from 0 to 99.
Mod Mix - **Knob 5** controls the mix (MOD MIX) of wet and dry signal. Ranges from 0 (all dry) to 99 (all wet).

Phaser

A Phaser splits the incoming signal, takes the split signal in and out of phase and mixes it back in with the original signal. As the phasing changes, different frequencies are canceled resulting in a warm sort of twisting sound.

Parameter 1 - Knob 2 adjusts the rate (SPEED) of the modulating phase. Ranges from 0 to 99.
Parameter 2 - Knob 3 adjusts the intensity (DEPTH) of the modulation. Ranges from 0 to 99.
Parameter 3 - Knob 4 adjusts the amount of effected signal returned to the input of the Phaser (REGEN). Ranges from 0 to 99.
***Parameter 4 -** Selects the waveform used by the Phaser. Waveforms include: Triangle , Sine, and Square.
***Parameter 5 -** Adjusts the left to right balance of the wet signal. Ranges from L 99 to R 99.
Mod Level - Knob 5 controls the level (MOD LEVL) of wet and dry signal. Ranges from 0 (all dry) to 99 (all wet).

Triggered Flanger

A Triggered Flanger is the same sound as a regular Flanger but it lets you choose the starting point of the Flanger sweep. With a regular Flanger, the low frequency oscillator (LFO) is continually sweeping up and down. Therefore, when you begin to play, the flanger may be at the top, bottom, or any random point of the sweep. With a Triggered Flanger, every time the signal exceeds the Sensitivity level setting, the Flanger begins at the LFO Start Parameter.

Parameter 1 - Knob 2 adjusts the rate (SPEED) of the modulation. Ranges from 0 to 99.
Parameter 2 - Knob 3 adjusts the strength the signal must be (SENSTVTY) in order to trigger the Flanger. Ranges from 0 (strong signals) to 99 (weak signals).
Parameter 3 - Knob 4 selects the Flanger sweep starting point (LFO STRT). Ranges from 0 (bottom of the sweep point) to 99 (top of the sweep point).
Mod Mix - Knob 5 controls the mix (MOD MIX) of wet and dry signal. Ranges from 0 (all dry) to 99 (all wet).

Triggered Phaser

A Triggered Phaser is the same sound as a regular Phaser but it lets you choose the starting point of the Phaser sweep. In a regular Phaser, the low frequency oscillator (LFO) is continually changing the phase of the signal. Therefore, when you begin to play, the phaser may be at any random point of the phase. With a Triggered Phaser, every time the signal exceeds the Sensitivity level setting, the Phaser begins at the LFO Start Parameter.

Parameter 1 - Knob 2 adjusts the rate (SPEED) of the modulating phase. Ranges from 0 to 99.
Parameter 2 - Knob 3 adjusts the strength the signal must be (SENSTVTY) in order to trigger the Phaser. Ranges from 0 (strong signals) to 99 (weak signals).

***These Parameters are only available using the X-EDIT™ Editor/Librarian software.**

Parameter 3 - Knob 4 selects the Phaser sweep starting point (LFO START). Ranges from 0 (bottom of the sweep point) to 99 (top of the sweep point).

Mod Mix - Knob 5 controls the mix (MOD MIX) of wet and dry signal. Ranges from 0 (all dry) to 99 (all wet).

Tremolo

A Tremolo effect modulates the volume of the signal at an even rate.

Parameter 1 - Knob 2 adjusts the rate (SPEED) at which the volume modulates. Ranges from 0 to 99.

Parameter 2 - Knob 3 adjusts the intensity (DEPTH) of the modulating volume. Ranges from 0 to 99.

Parameter 3 - Knob 4 selects the type of wave form the modulation uses. Choices include: TRIANGLE , SINE, and SQUARE.

Knob 5 has no function when the Tremolo is selected.

Panner

An Auto Panner modulates the sound from left to right at an even rate.

Parameter 1 - Knob 2 adjusts the rate (SPEED) at which the signal pans from side to side. Ranges from 0 to 99.

Parameter 2 - Knob 3 adjusts the intensity (DEPTH) of the changing pan. Ranges from 0 to 99.

Parameter 3 - Knob 4 selects the type of wave form the modulation uses. Choices include: TRIANGLE , SINE, and SQUARE.

Knob 5 has no function when the Panner is selected.

Vibrato

A Vibrato effect modulates the pitch of the incoming signal at an even rate.

Parameter 1 - Knob 2 adjusts the rate (SPEED) at which the pitch modulates. Ranges from 0 to 99.

Parameter 2 - Knob 3 adjusts the intensity (DEPTH) of the modulating pitch. Ranges from 0 to 99.

Parameter 3 - Knob 4 selects the type of wave form the modulation uses. Choices include: TRIANGLE , SINE, and SQUARE.

Knob 5 does not function when the Vibrato is selected.

Rotary Speaker

Rotary Speaker is an emulation of a device that includes a spinning horn and rotor (woofer). The rotation of these two speakers produces an interesting combination of sound panning from side to side, as well as a slight pitch change due to the speed of the sound coming towards, and then going away from the listener.

Parameter 1 - Knob 2 adjusts the rate (SPEED) of the spinning speakers. Ranges from 0 to 99.

Parameter 2 - Knob 3 controls the intensity (DEPTH) of the Effect. Ranges from 0 to 99.

Parameter 3 - Knob 4 controls the Pitch Shift (DOPPLER) effect that is the ratio between the horn and the rotor positions. Ranges from 0 to 99.

***Parameter 4 -** Selects the crossover frequency between the horn and rotor. Ranges from 200Hz to 1500Hz.

Mod Mix - Knob 5 controls the mix (MOD MIX) of wet and dry signal. Ranges from 0 (all dry) to 99 (all wet).

***These Parameters are only available using the X-EDIT™ Editor/Librarian software.**

Effects and Parameters

AutoYa™

An AutoYa combines the characteristics of a Wah and a Flanger together creating an almost human vowel sound as if the guitar were saying "Yah." The AutoYa automatically provides this animation by modulating the sound at an even rate.

Parameter 1 - Knob 2 adjusts the rate (SPEED) of the AutoYa. Ranges from 0 to 99.

Parameter 2 - Knob 3 adjusts the intensity (DEPTH) of the AutoYa effect. Ranges from 0 to 99.

Parameter 3 - Knob 4 adjusts the throaty quality (RANGE) of the AutoYa effect. Ranges from 1 to 50.

***Parameter 4 -** Adjusts the left to right balance of the wet signal. Ranges from L 99 to R 99.

Mod Mix - Knob 5 controls the mix (MOD MIX) of wet and dry signal. Ranges from 0 (all dry) to 99 (all wet).

YaYa™

The YaYa is an effect exclusive to DigiTech® products. The YaYa is controlled by the Expression Pedal and combines the characteristics of a wah and a flanger together providing a unique talk box type of effect. As the Expression Pedal is rocked back and forth, the guitar appears to say "Yah." The YaYa effect must be linked to the Expression Pedal in order to function. See page 45 for more information on linking the **Expression Pedal**.

Parameter 1 - Knob 2 adjusts the Ya Pedal position (YA PEDAL). Ranges from 0 to 99.

Parameter 2 - Knob 3 adjusts the intensity (DEPTH) of the YaYa effect. Ranges from 0 to 99.

Parameter 3 - Knob 4 adjusts the throaty quality (RANGE) of the YaYa effect. Ranges from 1 to 50.

***Parameter 4 -** Adjusts the left to right balance of the wet signal. Ranges from L 99 to R 99.

Mod Mix - Knob 5 controls the mix (MOD MIX) of wet and dry signal. Ranges from 0 (all dry) to 99 (all wet).

SynthTalk™

SynthTalk is another effect exclusive to DigiTech. It makes your guitar appear to speak based upon the dynamics of your playing style.

Parameter 1 - Knob 2 adjusts the Attack (ATTACK)of the synthesized voice. Ranges from 0 to 99.

Parameter 2 - Knob 3 adjusts the Release (RELEASE) of the synthesized voice. Ranges from 0 to 99, and oo (infinity).

Parameter 3 - Knob 4 changes the characteristics of the various synth voices (VOX). Ranges from 0 to 99.

***Parameter 4 -** Adjusts the left to right balance of the wet signal. Ranges from L 99 to R 99.

Sensitivity - Knob 5 knob adjusts the sensitivity (SENSTVTY) of the input signal required to trigger the SynthTalk effect. Ranges from 0 to 99.

Envelope Filter

The Envelope Filter is an automatic Wah effect that alters your sound according to how hard the strings are struck.

Parameter 1 - Knob 2 adjusts the sensitivity (SENSTVTY) of the input signal required to trigger the Wah effect. Ranges from 0 to 99.

Parameter 2 - Knob 3 adjusts the frequency range (RANGE) of the Wah effect. Ranges from 0 to 99.

Parameter 3 - Knob 4 adjusts the left/right balance of the Wah signal. Ranges from left 99 (MOD LEFT 99) to right 99 (MOD RGHT 99).

Mod Mix - Knob 5 controls the mix (MOD MIX) of wet and dry signal. Ranges from 0 (all dry) to 99 (all wet).

***These Parameters are only available using the X-EDIT™ Editor/Librarian software.**

Detune

A Detuner makes a copy of your incoming signal, takes the copied signal slightly out of tune from the original, and mixes the two signals together. The result is a doubling type of effect as if two guitars were playing the same part together.

Parameter 1 - Knob 2 selects the Amount (AMOUNT) of detuning applied to the copied pitch in cents (100 cents equals 1 semitone). Ranges are from 24 cents below (-24) to 24 cents above (24).

Parameter 2 - Knob 3 adjusts the left/right balance of the detuned signal. Ranges from left 99 (MOD LEFT 99) to right 99 (MOD RGHT 99).

Knob 4 has no function when Detune is selected.

Mod Level - Knob 5 controls the level (MOD LEVL) of the detuned note. Ranges from 0 to 99.

Pitch Shift

A Pitch Shifter copies the incoming signal, then shifts the pitch of the copied note to a different note. The shifted note is then mixed back with the original signal sounding as if two guitars were playing parallel notes.

Parameter 1 - Knob 2 adjusts the Amount of Pitch Shift (SHIFT) in intervals of one semi-tone. Ranges from 12 semitones (-12) below to 24 semitones (24) above.

Parameter 2 - Knob 3 adjusts the left/right balance of the shifted pitch. Ranges from left 99 (MOD LEFT 99) to right 99 (MOD RGHT 99).

Knob 4 has no function when Pitch Shift is selected.

Mod Level - Knob 5 controls the level (MOD LEVL) of the shifted pitch. Ranges from 0 to 99.

Delay

Delay records a portion of the incoming signal, and plays it back a short time later. The recorded segment can repeat just once, several times, or infinitely (that turns off the input to the Delay and lets you play over the top of a passage in the Delay loop). The Delay in the GNX4 also includes a Ducker Threshold that lets you set the signal strength required before the Delay records. This feature lets you control the Delay with your playing.

Delay On/Off - The **Status button** turns the Delay (DELAY) on and off.

Delay Type - Knob 1 selects one of the 5 different types of Delay. The Delay choices include:

MONO (clear concise repeats)
PINGPONG (bounces from side to side)
ANALOG (deteriorates with each repeat)
ANLGPONG (side to side with deterioration)
SPREAD (clear concise repeats with stereo imaging)

Time - Knob 2 adjusts the length of time between repeats. Ranges from 0 through 2000 milliseconds (0 MS through 2000 MS) in 1 ms increments. Use the **DATA WHEEL** while the Delay Time appears in the Display to adjust the Delay Time in 100 ms increments.

Feedback - Knob 3 adjusts the number of times the delayed signal will repeat (FEEDBACK). Ranges from 0 to 99 and RPT HOLD (infinite repeat).

Ducker Threshold - Knob 4 adjusts the level (THRESHLD) the input signal must reach before the Delay signal is attenuated. Ranges from 1 to 99 and off (OF).

***Ducker Attenuation -** The Ducker Level selects the amount of attenuation applied to the Delay signal when the Ducker Threshold has been exceeded. Ranges from 0 to 99.

***Delay Balance -** The Delay Balance adjusts the left/right balance of the Delay signal. Ranges from L 99 to R 99.

Spread - This parameter increases or decreases the stereo imaging for the Spread Delay. Range is 1-50.

Delay Level - Knob 5 adjusts the volume (DLY LEVL) of the Delay signal. Ranges from 0 to 99.

***These Parameters are only available using the X-EDIT™ Editor/Librarian software.**

Effects and Parameters

Reverb

Reverb gives the listener a sense that the music is being performed in various acoustical environments. It can provide the tight acoustics of a small room, or the ambience of a huge arena.

Reverb On/Off - The **Status button** turns the Reverb (REVERB) on and off.

Reverb Type - Knob 1 selects the type of Reverb or acoustic environment. The GNX4 provides ten different environments to choose from including:

STUDIO = Studio
ROOM = Wood Room
CLUB = Club
PLATE = Plate
HALL = Hall
THEATER = Amphitheater
CHURCH = Church
GARAGE = Parking Garage
ARENA = Arena
SPRING = Spring

PreDelay - Knob 2 adjusts the amount of time (PREDELAY) it takes for the initial sound to reach the first reflective surface in the simulated environment. Ranges from 0 to 15.

Decay - Knob 3 adjusts the length of time the Reverb is audible (DECAY). Ranges from 0 to 99.

Damping - Knob 4 controls the amount of sound which is absorbed (DAMPING) in the simulated environment. Ranges from 0 to 99.

***Reverb Balance -** The Reverb Balance adjusts the left/right balance of the Reverb signal. Ranges from L 99 to R 99.

Reverb Level - Knob 5 adjusts the level (RVB LEVL) of the Reverb. Ranges from 0 to 99.

***These Parameters are only available using the X-EDIT™ Editor/Librarian software.**

Expression Pedal Assignment

The GNX4 has several options for real-time control over effects parameters in each of its presets. Parameters can be modified during performance both manually and automatically by several methods. These are referred to as expression controllers and include the following: the built-in Expression Pedal, Internal LFOs (low frequency oscillators), and the Control Footswitches. Each of these controllers can be programmed specifically for each preset, giving you many options for manipulating each in a different manner.

Expression Pedal

The Expression Pedal on the GNX4 can control up to 3 parameters in real time. Each parameter assigned to the Expression Pedal can have specific ranges of how much the parameter is controlled by using the minimum and maximum controls. The GNX4's Expression Pedal includes DigiTech®'s exclusive V-Switch. The V-Switch lets you switch the Expression Pedal assignment on the fly. Apply extra pressure to the toe of the Expression Pedal to engage the V-Switch, and the Expression Pedal switches between the assigned parameter and the Wah. The sensitivity or amount of pressure required to engage the V-Switch can be adjusted to suit your personal taste (or weight of your foot). See page 104 for the **V-Switch Threshold/Sensitivity** adjustment procedure.

Expression Pedal Links 1-3

Each preset can have up to 3 parameters assignments to the **Expression Pedal**. Each assignment has the following assignment options:

1. Parameter Type (see parameter list on page 48)
2. Min Value
3. Max Value

The procedure for assigning a parameter to the **Expression Pedal** is as follows:

1. Press either **Effect Select** button until the **Expression Assign** row is selected.
2. Press the **STATUS** button until the display reads EXP PDL1 (Expression Pedal Link 1), EXP PDL2 (Expression Pedal Link 2), or EXP PDL3 (Expression Pedal Link 3), depending upon which assignment you want to use or the number of parameters you intend to assign.
3. Rotate **Knob 1** until the parameter appears in the display. See the Expression Parameter Assignment List on page 48 for a complete list of assignable parameters.
4. Rotate **Knob 2** to select the minimum value the parameter reaches with the Expression Pedal in the toe up position.
5. Rotate **Knob 3** to select the maximum value the parameter reaches with the Expression Pedal in the toe down position.
6. Store your Expression Pedal assignment to your preset. See page 58 for more information on storing presets.

Wah Pedal

The GNX4's wah effect can be programmed to have specific heel and toe ranges in each preset. These settings are configured in the Expression Assign row of the matrix. To customize the heel/toe range for the wah effect, follow these steps:

1. Press either **EFFECT SELECT** button until the **Expression Assign** row is selected.
2. Press the **STATUS** button multiple times until WAH PDL appears in the display.
3. Rotate **Knob 2** to set the heel position of the wah effect. Ranges from 0 to 99.
4. Rotate **Knob 3** to set the toe position of the wah effect. Ranges from 0 to 99.
5. Press **EXIT** when finished.

Expression Pedal Assignment

Amp Channel Footswitch

From the factory, the Amp Channel Footswitch selects between the Channel 1 Amp, Channel 2 Amp, and the Warped Amp state when the GNX4 is in **Stompbox/Control** mode. However, you can configure the function of the Amp Channel Footswitch within a preset.

The procedure for assigning the function of the **Amp Footswitch** is as follows:

1. Press either **EFFECT SELECT** button until the **Expression Assign** row is selected.
2. Press the **STATUS** button until the display reads AMP FS (Amp Footswitch).
3. Rotate **Knob 1** to select the Amp Footswitch function. Your choices include:
   - CH1-CH2 - Switches between the Channel 1 (Green) and the Channel 2 (Red) Amp Channels.
   - CH1-WARP - Switches between the Channel 1 (Green) and the Warped Amp (Yellow) Channels.
   - CH2-WARP - Switches between the Channel 2 (Red) and the Warped Amp (Yellow) Channels.
   - C1-C2-WP - Switches between the Channel 1(Green), the Warped (Yellow) Channel, and the Channel 2 (Red) Channels.
4. Store your Amp Footswitch assignment to your preset. See page 58 for more information on storing presets.

Control Footswitches

When using the GNX4 in **Stompbox/Control** mode, **FOOTSWITCHES 2, 3, and 4** become a Control Footswitches. This provides even more real-time expressive control during performance when used in conjunction with the Expression pedal. Up to three 3 parameters can be controlled between two different values in each preset using the Control footswitches. The Control footswitches can function in two different ways, as Toggle footswitches or as Momentary footswitches.

When using the Toggle function, a Control footswitch behaves like a normal footswitch in that it switches to an ON state when pressed once and then an OFF state when pressed again. This type of function is useful when you want to use it for turning effects like the Compressor or Whammy on and off. It can also be used to toggle between two different parameter settings, for instance, a delay level of 10 or a Delay level of 50.

When using the Momentary function, a Control footswitch turns an effect ON as long as it is being pressed, and turns OFF once it is released. Experimenting with different parameters can produce some very interesting results. For instance, you can assign Pitch Shift amount and have your guitar shift from a fifth above when a Control footswitch is pressed and return to normal pitch when it is released.

Control A, B, and C Links

When the GNX4 is in Stompbox/Control mode, the five numbered footswitches have the following default functions:

FS 1 – Amp Channel
FS 2 (CONTROL A) – Stompbox On/Off
FS 3 (CONTROL B) – Chorus/Mod On/Off
FS 4 (CONTROL C) – Delay On/Off
FS 5 – Tap Tempo

Footswitches 2, 3, and 4, which are also labeled as Control A,B, and C footswitches, are programmable footswitches that can control of up to 3 parameters each per preset. These are displayed as CNTRL A 1-3, CNTRL B 1-3, and CNTRL C 1-3 in the Expression Assign menu. Each Control footswitch has the following assignment options:

1. Parameter Type (see attached parameter list)
2. Min Value
3. Max Value
4. Toggle or Momentary

Expression Pedal Assignment

The procedure for assigning the **Control** Footswitches in the GNX4 is as follows:

1. Press either **EFFECT SELECT** button until the **Expression Assign** row is selected.
2. 2. Press the **Status** button until the display reads CNTRL A1 (Control A1), CNTRL A2 (Control A2), CNTRL A3 (Control A3), CNTRL B1 (Control B1), CNTRL B2 (Control B2), CNTRL B3 (Control B3), CNTRL C1 (Control C1), CNTRL C2 (Control C2), CNTRL C3 (Control C3).
3. Rotate **Knob 1** until the Parameter is displayed. See the **Expression Parameter Assignment List** on page 48 for a complete list of assignable Parameters.
4. Rotate **Knob 2** to select the minimum value the assigned parameter reaches when the Control footswitch is turned off.
5. Rotate **Knob 3** to select the maximum value the assigned parameter reaches when the Control footswitch is turned on.
6. While on Control Footswitch assignment #1 only, rotate the **Knob 4** to select the type of footswitch function you want it to perform, Toggle, TOGGLE, or Momentary, MOMENTARY.
7. Store the assignment to your preset. See page 58 for more information on storing.

LFOs

The GNX4 includes two low frequency oscillators (LFO1 and LFO2) that can each be assigned to a single parameter. A low frequency oscillator automatically varies the value of the assigned parameter at a steady rate. A minimum and maximum value can be assigned. For instance: if the Amp Gain was assigned to LFO1, and the minimum value was set at 1 and the maximum value was set at 99, the GNX4 would automatically sweep the amount of distortion from clean to distorted and back to clean. Individual LFO speeds can also be assigned. In the previous example, the LFO speed would determine the length of time it took the LFO to sweep from the clean to the distorted sound.

LFO Links 1-2

Each preset has two LFOs that can each be assigned to a single parameter. Each LFO has the following assignment options:

1. Parameter Type (see attached parameter list)
2. Min Value
3. Max Value
4. LFO Waveform
5. LFO Speed

The procedure for assigning a parameter to the LFO 1 or LFO 2 is as follows:

1. Press either **EFFECT SELECT** button until the **Expression Assign** row is selected.
2. Press the **STATUS** button to assign LFO1 (LFO 1) or LFO2 (LFO 2).
3. Rotate **Knob 1** until the Parameter is displayed. See the **Expression Parameter Assignment List** on page 48 for a complete list of assignable Parameters.
4. Rotate **Knob 2** to select the minimum value the assigned parameter reaches at the bottom turn around point for the LFO.
5. Rotate **Knob 3** to select the maximum value the assigned parameter reaches at the top turn around point for the LFO.
6. Rotate **Knob 4** to select the speed that the LFO oscillates from the minimum to the maximum values. LFO speed ranges from (.05 HZ) to 10 Hz (10.0 HZ).
7. Rotate **Knob 5** to select the waveform the LFO oscillates on. Your choices include:
   TRIANGLE (Triangle) - a smooth rise and fall, but abrupt turn around in oscillation.
   SINE (Sine) - a smooth rise, fall, and turn around in oscillation.
   SQUARE (Square) - an abrupt rise, fall, and turn around in oscillation.
8. Store your LFO assignment to your preset. See page 58 for more information on the storing procedure.

Expression Pedal Assignment

Expression Parameter Assignment List

The following parameters can be assigned to any of the 3 Expression Pedal, Control A, B, C footswitches, or LFO 1 and LFO 2.

NO LINK (No Link)	No Parameter is assigned
AMP CHAN (Amp Channel)	Switches Amp Channels
AMP WARP (Amp Warp)	Warps the Channel 1 and Channel 2 Amp Models
CAB WARP (Cabinet Warp)	Warps the Channel 1 and Channel 2 Cabinet types
WARP (Warp)	Warps Channel 1 and Channel 2
CH1 GAIN (Green Gain)	Controls the Amp Gain for Channel 1
CH1 LEVL (Green Level)	Controls the Volume of Channel 1
CH2 GAIN (Red Gain)	Controls the Amp Gain for Channel 2
CH2 LEVL (Red Level)	Controls the Volume of Channel 2
WAHONOFF (Wah On/Off)	Turns the Wah on and off
WAH PDL (Wah Pedal)	Adjusts the Wah sweep
PCKONOFF (Pickup Simulator On/Off)	Turns the Pickup Simulator on and off
PCK TYPE (Pickup Type)	Selects the Pickup type
CMPONOFF (Compressor On/Off)	Turns the Compressor effect on and off
CMPATTAK (Compressor Attack)	Controls the Compressor's Attack time
CMPRATIO (Compressor Ratio)	Controls the Compressor's Ratio
CMPTHRES (Compressor Threshold)	Controls the Compressor's Threshold
CMP GAIN (Compressor Gain)	Controls the Compressor's Gain
IPSONOFF (Whammy™/IPS/Talker™ On/Off)	Turns the Whammy/IPS/Talker module on and off

Whammy™/IPS/Talker™ Effect Parameters

Active Effect

WHAMMY (Whammy)	SHIFTAMT	WHAM PDL	WHAM MIX	
IPS (IPS)	SHIFTAMT	SCALE	KEY	IPS LEVL
DETUNE (Detune)	SHIFTAMT	DTN LEVL		
PITCH (Pitch)	SHIFTAMT	PCH LEVL		
TALKER 1 (Talker 1)	MIC LEVL			
TALKER 2 (Talker 2)	MIC LEVL			
TALKER 3 (Talker 3)	MIC LEVL			
TALKER 4 (Talker 4)	MIC LEVL			
TALKER 5 (Talker 5)	MIC LEVL			

SBOXONOF (Stompbox On/Off)	Turns the Stompbox module on and off

Stompbox Effect Parameters

Active Stompbox

SCREAMER (Screamer)	DRIVE	TONE	LEVEL			
RODENT (Rodent)	DIST	FILTER	VOLUME			
DS DIST (DS Dist)	DIST	TONE	LEVEL			
DOD 250 (DOD 250)	GAIN	LEVEL				
BIG MP (Big MP)	SUSTAIN	TONE	VOLUME			
GUY OD (Guy OD)	DRIVE	LEVEL				
SPARKDRV (Sparkdrv)	GAIN	TONE	CLEAN	VOLUME		
GRUNGE (Grunge)	GRNGGAIN	BUTT	FACE	LOUD		
FUZZY (Fuzzy)	FUZZ	VOLUME				
ZONE (Zone)	DIST	MID FREQ	MID LEVL	LEVEL	LOW	HIGH

GATONOFF (Noise Gate On/Off)	Turns the Noise Gate on and off
GATTHRES (Noise Gate Threshold)	Controls the Noise Gate's Threshold
GATATTAK (Noise Gate Attack)	Controls the Noise Gate's Attack time
PLUCKSNS (Noise Gate Pluck)	Controls the Noise Gate's Pluck Sensitivity
FX ONOFF (Chorus/Mod On/Off)	Turns the Chorus/Mod module on and off

Modulation Effects Parameters

Active Effect

CHORUS (Chorus)	SPEED	DEPTH	PREDELAY	MOD LEVL	MOD WAVE	MOD BAL
FLANGER (Flanger)	SPEED	DEPTH	REGEN	MOD MIX	MOD WAVE	MOD BAL
PHASER (Phaser)	SPEED	DEPTH	REGEN	MOD LEVL	MOD WAVE	MOD BAL
TRIGFLNG (Trig. Flngr.)	SPEED	SENSTVTY	LFO STRT	MOD MIX		
TRIGPHAS (Trig. Phsr.)	SPEED	SENSTVT	LFO STRT	MOD MIX		
TREMOLO (Tremolo)	SPEED	DEPTH	WAVEFORM			
PANNER (Panner)	SPEED	DEPTH	WAVEFORM			
VIBRATO (Vibrato)	SPEED	DEPTH	WAVEFORM			
ROTARY (Rotary)	SPEED	DEPTH	DOPPLER	MOD MIX	XOVER	MOD BAL
AUTOYA (Auto Ya™)	SPEED	DEPTH	RANGE	MOD MIX	MOD BAL	
YAYA (Ya Ya™)	YAYA PDL	DEPTH	RANGE	MOD MIX	MOD BAL	
SYNTHTLK (SynthTalk)	ATTACK	RELEASE	VOX	SENSTVTY	MOD BAL	
ENVELOPE (Env. Fltr.)	SENSTVTY	RANGE	MOD BAL	MOD MIX		
DETUNE (Detune)	AMOUNT	MOD BAL	MOD LEVL			
PITCH (Pitch Shift)	SHIFT	MOD BAL	MOD LEVL			

DLYONOFF (Delay On/Off)	Turns the Delay module on and off
DLY FDBK (Delay Feedback)	Controls the amount of Delay Feedback
THRESHLD (Delay Threshold)	Controls the Ducker Threshold for the Delay
DUCKATTN (Ducker Attenuation)	Controls the attenuation level applied to the Delay signal when the Ducker Threshold is exceeded
DLY LEVL (Delay Level)	Controls the Mix Level of the selected Delay Type
DLY BAL (Delay Balance)	Controls the left/right balance of the selected Delay Type
*DLY SPRD (Delay Spread)	Controls the left/right balance of the selected Delay Type
RVBONOFF (Reverb On/Off)	Turns the Reverb effect on and of
RVB PRE (Reverb Predelay)	Controls the Reverbs Predelay time
RVBDECAY (Reverb Decay)	Controls the Reverbs Decay time
RVB LEVL (Reverb Level)	Controls the Reverbs Mix Level
RVB BAL (Reverb Balance)	Controls the left/right balance of the selected Reverb Type
VOL PRE (Volume Pre)	Controls the Volume after the Amp Modeling, but before the Effects
VOL POST (Volume Post)	Controls the Volume at the end of the Effects chain
LFO1 SPD (LFO 1 Speed)	Controls the modulation speed of Expression LFO 1
LFO2 SPD (LFO 2 Speed)	Controls the modulation speed of Expression LFO 2

*Delay Balance is replaced by Delay Spread when Spread Delay is selected.

Creating a Preset

Suppose you wanted to create your own HyperModel™ that incorporates the sweet tones of a vintage Tweed using an American 2x12 cabinet, and the ripping distortion of a Rectified Amp with a British 4x12 cabinet. Let's also suppose that you want to be able to toggle between an acoustic guitar simulation and this new HyperModel with a preset that gives your single coil pickup a humbucker sound, uses no Compression, has a Noise Gate that opens quickly, a subtle Chorus effect, no Delay, and a little bit of a Hall reverb. The following guide steps you through the process of creating just that preset in the GNX4.

Selecting a Preset

The first step to create a custom preset of your own is to select a starting point. You can start with any existing preset, but for this example let's start with Preset 40. Use the **DATA WHEEL** or **Footswitches** (when the GNX4 is in either Preset or Stompbox/Control Mode) to select Preset 40.

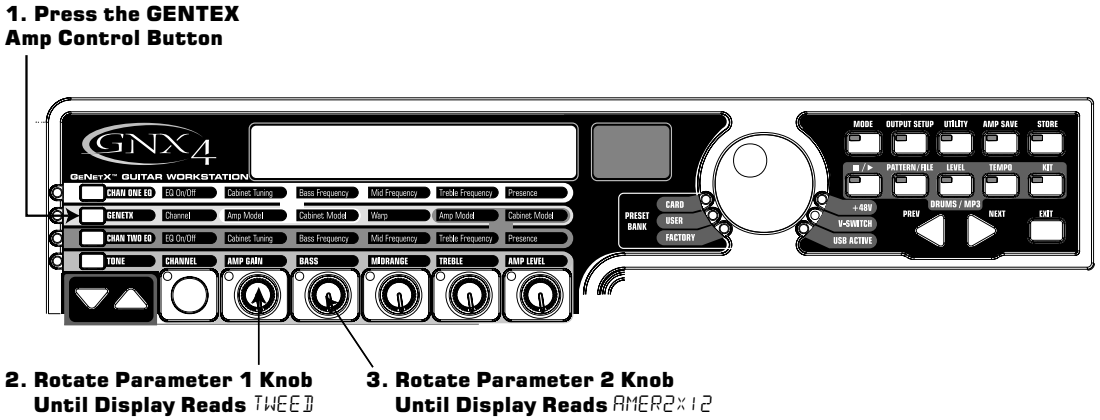
Create a HyperModel™

For this example, we are going to use a vintage Tweed amp with an American 2x12 Cabinet, and warp it with a Rectified Amp using a British 4x12 cabinet.

Select the Channel 1 Amp and Cabinet

To assign the vintage Tweed amp to Channel 1 do the following:

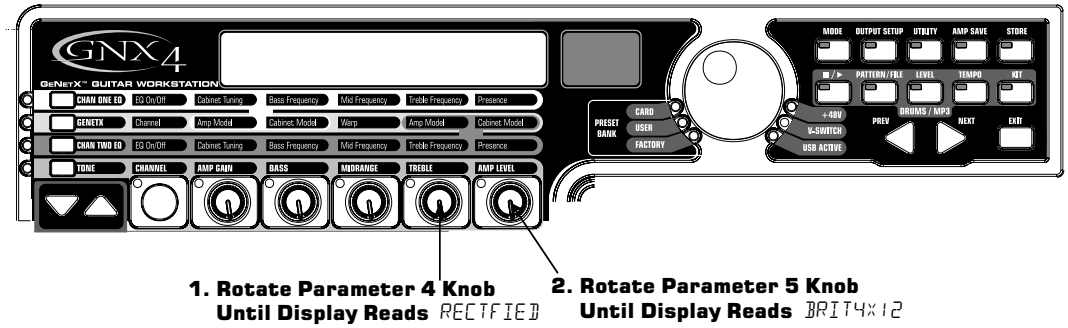
1. Press the **GENETX** Amp Control button to access each channel's amp and cabinet models.
2. Rotate **Knob 1** until the display reads TWEED (Tweed).
3. Rotate **Knob 2** until the display reads AMER2x12 (American 2x12).



Select the Channel 2 Amp and Cabinet

To assign the Rectified amp to the Channel 2 do the following:

1. Rotate **Knob 4** until the display reads RECTIFIED (Rectified).
2. Rotate **Knob 5** until the display reads BRIT4x12 (British 4x12).



Adjust the Channel 1 Parameters

The Tweed amp that we selected for our Channel 1 assignment uses the factory default settings for the Gain, EQ, and Level Parameters. Therefore, you may want to change the settings. To access the Parameters for Channel 1, do the following:

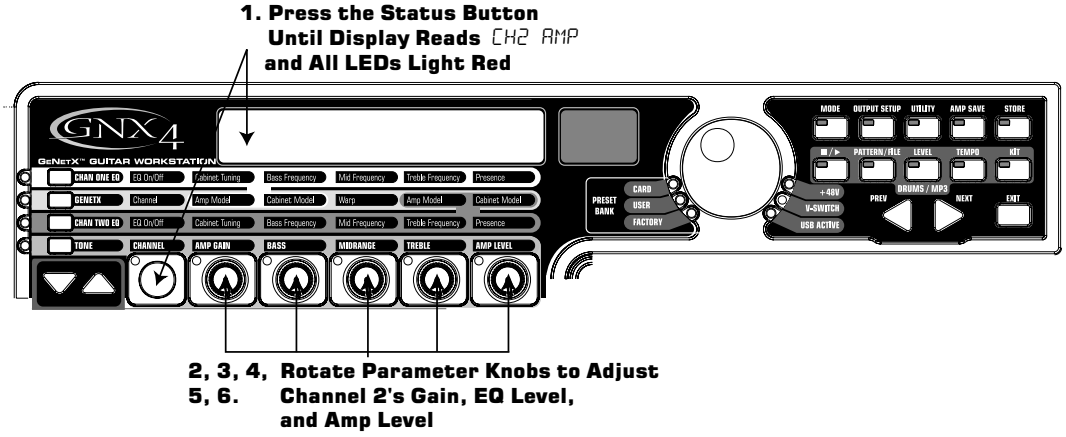
1. Press the **TONE** Amp Control button.
2. Press the **STATUS** button three times to select Channel 1's Parameters. The display will read CH1 AMP and all the horizontal LEDs will light green indicating that all 5 knobs will adjust Channel 1's Parameters.
3. Rotate **Knob 1** to adjust the Tweed Amp's Gain. The range is from 0 to 99.
4. Rotate **Knob 2** to adjust the Tweed Amp's Bass EQ Level (boost/cut). The range is from -12 dB (-12) to +12 dB (12).
5. Rotate **Knob 3** to adjust the Tweed Amp's Midrange EQ Level(boost/cut). The range is from -12 dB (-12) to +12 dB (12).
6. Rotate **Knob 4** to adjust the Tweed Amp's Treble EQ Level(boost/cut). The range is from -12 dB (-12) to +12 dB (12).
7. Rotate **Knob 5** to adjust the Tweed Amp's Level. The range is from 0 to 99.

Adjust the Channel 2 Parameters

Like the Tweed amp in Channel 1, the Rectified amp in Channel 2 may need to be adjusted to suit your personal taste. To access the Parameters for Channel 2, do the following:

1. Press the **STATUS** button three times to select Channel 2's Parameters. The display will read CH2 AMP and all the horizontal LEDs will light red indicating that all 5 knobs will adjust Channel 2's Parameters.
2. Rotate **Knob 1** to adjust the Rectified Amp's Gain. The range is from 0 to 99.
3. Rotate **Knob 2** to adjust the Rectified Amp's Bass EQ Level (boost/cut). The range is from -12 dB (-12) to +12 dB (12).
4. Rotate **Knob 3** to adjust the Rectified Amp's Midrange EQ Level(boost/cut). The range is from -12 dB (-12) to +12 dB (12).
5. Rotate **Knob 4** to adjust the Rectified Amp's Treble EQ Level(boost/cut). The range is from -12 dB (-12) to +12 dB (12).
6. Rotate **Knob 5** to adjust the Rectified Amp's Level. The range is from 0 to 99.

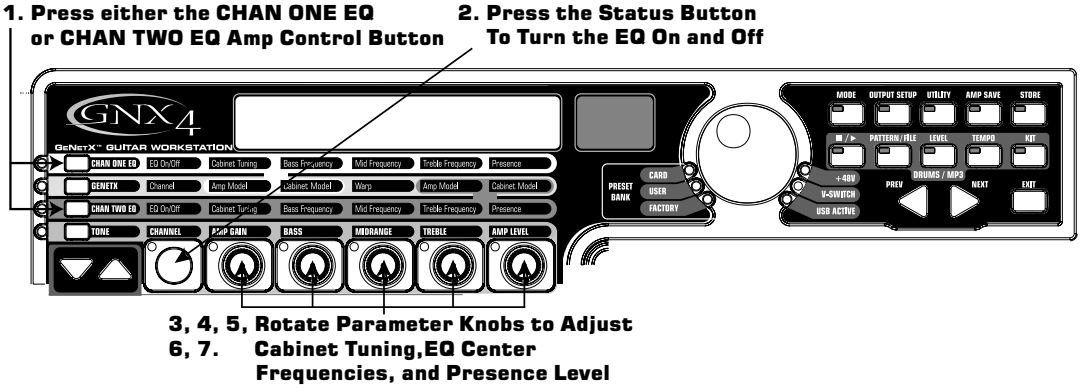
Creating a Preset



Adjust the EQ/Tune the Cabinets

As an option, you may also want to modify each channel's EQ center frequencies (Bass, Midrange, and Treble found in the TONE row) and adjust the resonance for the American 2x12 and the British 4x12 Cabinets. To access the EQ center frequency settings and Cabinet tuning, do the following:

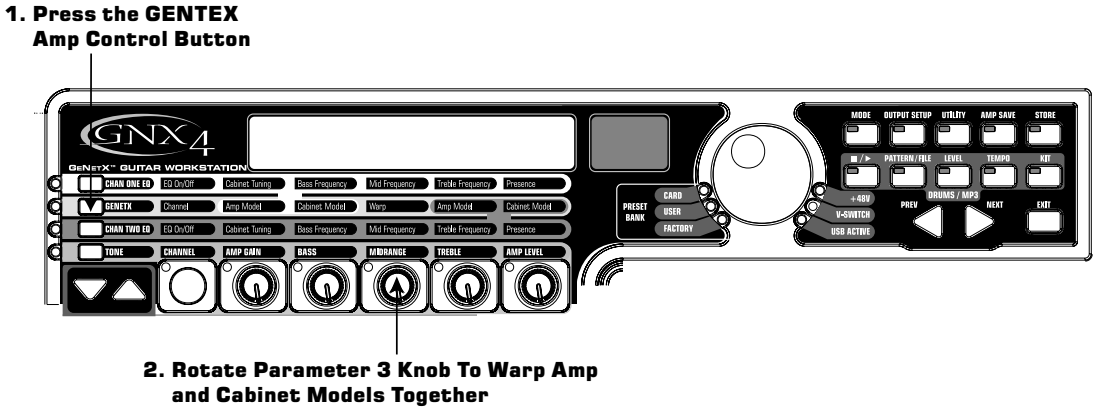
1. Select the amp channel that you would like to edit by pressing either the **CHAN ONE EQ** Amp Control button or the **CHAN TWO EQ** Amp Control button.
2. Press the **STATUS** button to turn the EQ on and off.
3. Rotate **Knob 1** to adjust the Cabinet Tuning resonance. The Cabinet Tuning ranges are from -120 (one octave below) to 120 (one octave above).
4. Rotate **Knob 2** to select the Bass center frequency. The range is from 50 Hz (50 HZ) to 300 Hz (300 HZ).
5. Rotate **Knob 3** to select the Midrange center frequency. The range is from 300 Hz (300 HZ) to 5000 Hz (5000 HZ).
6. Rotate **Knob 4** to select the Treble center frequency. The range is from 500 Hz (500 HZ) to 8000 Hz (8000 HZ).
7. Rotate **Knob 5** boosts or cuts the Presence Level. The range is from -12 dB (-12) to +12 dB (12).



Warping Amp Channels Together

When the Amps and Cabinets in Channel 1 and Channel 2 are dialed in to suit your taste, we can Warp their characteristics together to create a new HyperModel. To warp the amps do the following:

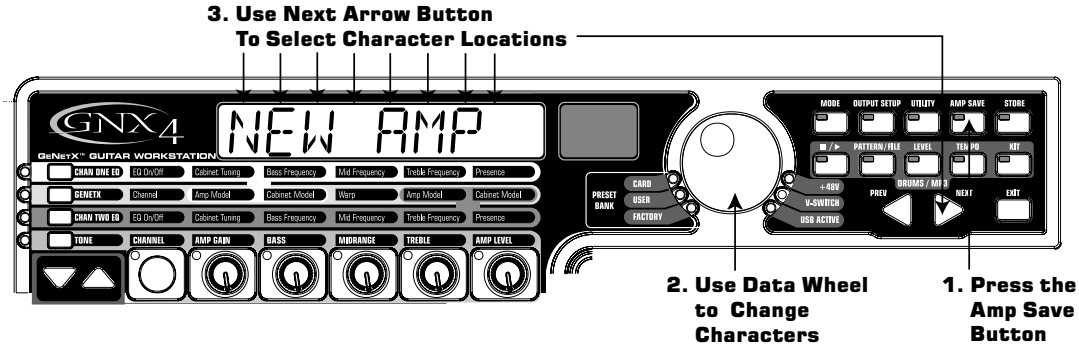
1. Press the **GENETX** Amp Control button.
2. Rotate **Knob 3** (Warp) knob to blend the Amps and Cabinets together to create a new unique amp.



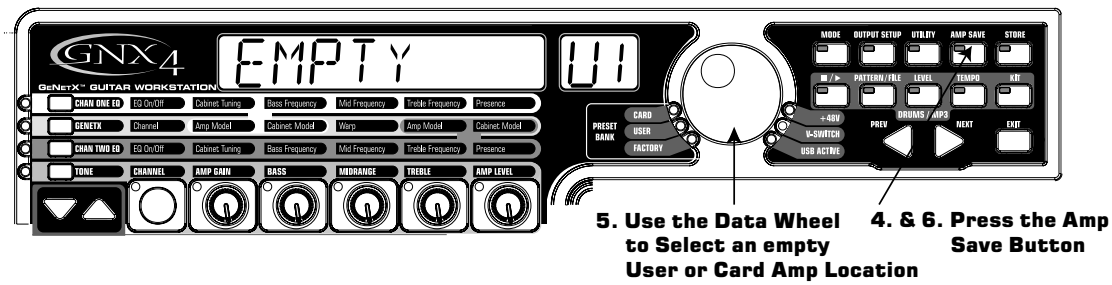
Save the HyperModel™

Now that we have designed our own Amp/Cabinet HyperModel, we need to save it to one of the 9 User HyperModel locations. This allows us to use it in presets. To save the HyperModel, do the following:

1. Press the **AMP SAVE** button until the display reads NEW AMP and the first letter (N) is flashing. For this example, let's name the HyperModel "Rectweed" (Rectified Tweed).
2. Rotate the **DATA WHEEL** to select R as the first letter.
3. Press the **NEXT ARROW** button to select the next character in the display. Continue using the **DATA WHEEL** and **NEXT ARROW** button until the display reads RECTWEED.



4. When the display reads RECTWEED, press the **AMP SAVE** button again.
5. Now we need to choose one of the 9 User HyperModel locations. Use the **DATA WHEEL** to select a an empty user location. The display should read EMPTY (Empty) and the red numeric display should read U1 if this is the first HyperModel stored to your GNX4.
6. Press the **AMP SAVE** button again to save to this Amp location. The display briefly reads AMP SAVED (Amp Saved) and then returns to the name of the selected preset.

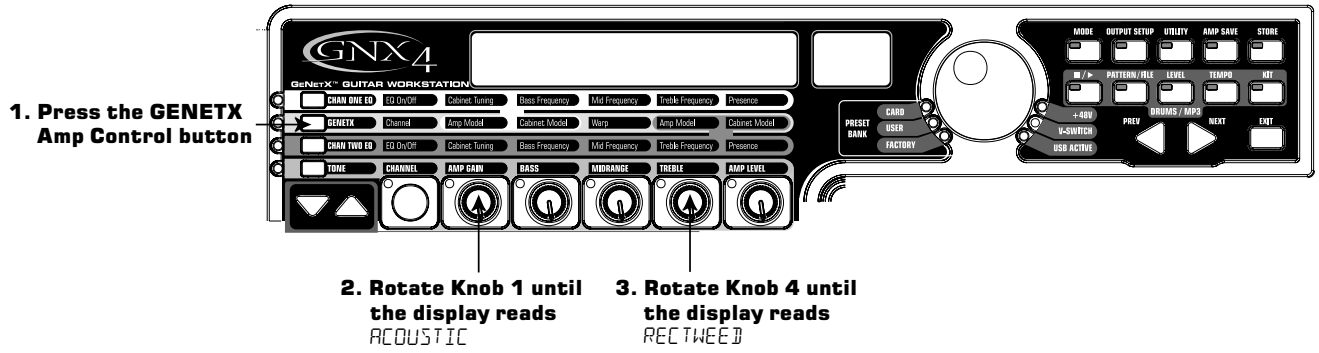


Creating a Preset

Select Models for the Preset's Channels

In the previous steps, we selected a Tweed amp model for the Channel 1 amp and a Rectified amp model for the Channel 2 amp. Then we warped the two together to create our HyperModel™. This HyperModel is saved as an amp type that we named Rectweed, but it is not currently part of our preset. In this example preset, we need to be able to toggle between an acoustic guitar simulation and our new HyperModel. To do this we need to now select the Acoustic model for Channel 1's amp and Rectweed for Channel 2's amp in our preset. This procedure is as follows:

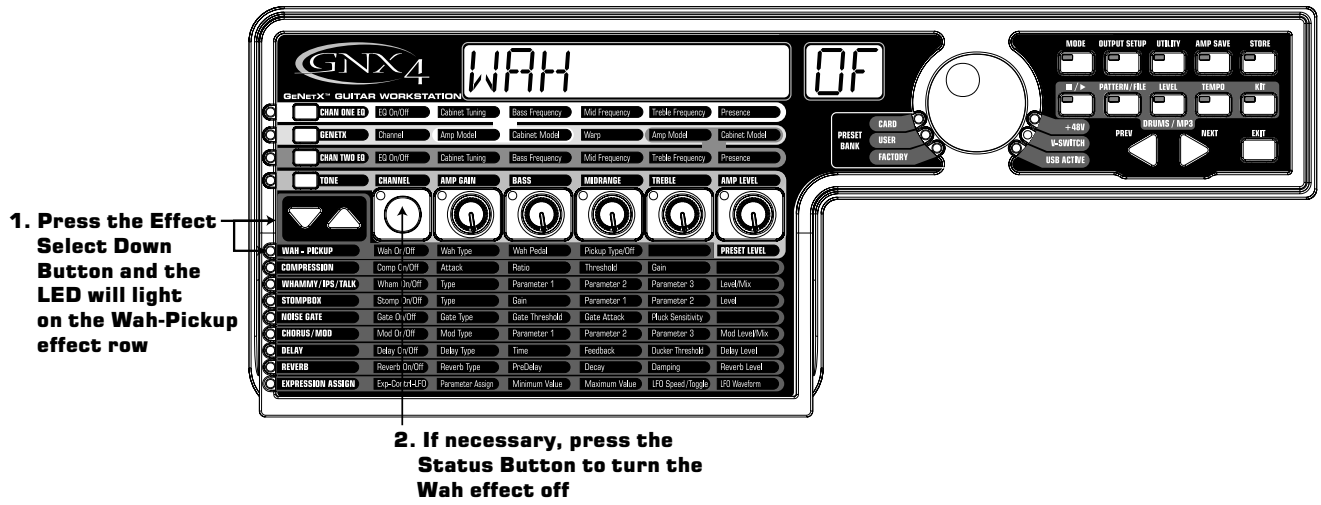
1. Press the **GENETX** Amp Control button.
2. Rotate **Knob 1** until the display reads ACOUSTIC. This is Channel 1's Model for the preset.
3. Rotate **Knob 4** until the display reads RECTWEED (our new HyperModel). This is Channel 2's Model for the preset. This lets us toggle between these two sounds using the Amp Footswitch (when Preset Mode is active).



Edit the Preset Effects

The next step to creating our example preset involves editing the effects. To edit the preset, do the following:

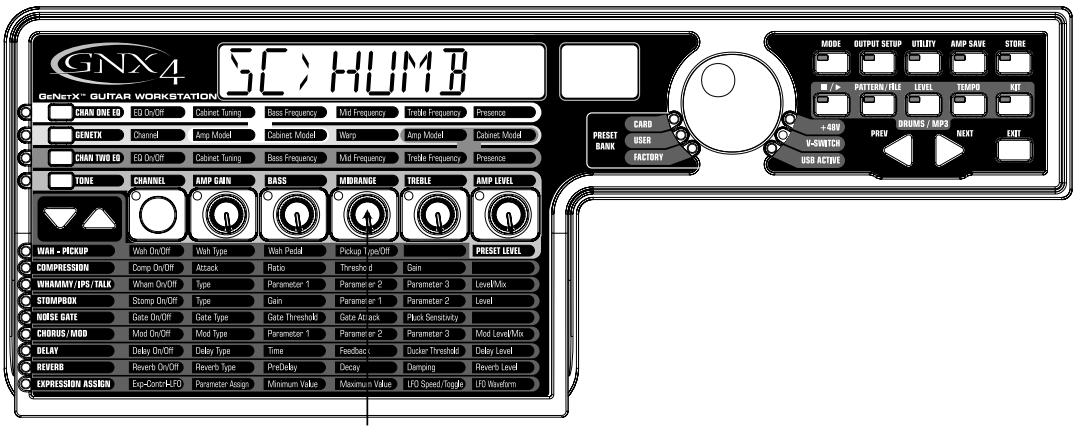
1. Press the **EFFECT SELECT DOWN** button. The display will briefly read EDIT and the Matrix LED in the Wah-Pickup row will light.
2. If the red display reads WAH On, press the **STATUS** button once to turn the Wah off (since our example does not use a Wah).



Select the Pickup Type

In our example preset we use a single coil pickup, but want it to sound like a double coil humbucker.

1. With the Wah-Pickup LED lit, rotate **Knob 3** until the display reads SC>HUMB. This makes a single coil pickup sound like a humbucker.



1. Rotate Knob 3 until the display reads SC>HUMB

Turn the Compressor Off

We don't use compression in our preset so, we need to turn the Compressor off. To turn the Compressor off, do the following:

1. Press the **EFFECT SELECT DOWN** button. The Compression LED lights and the display shows the current status of the Compressor.
2. If the Compressor is on, press the **STATUS** button until the red display reads off (OF).

Turn the Whammy™/IPS/Talker™ Off

We don't want Whammy, IPS, or Talker effects in this preset. To turn these effects off, do the following:

1. Press the **EFFECT SELECT DOWN** button, and the Whammy/IPS/Talker LED is lit.
2. If the display indicates that one of these effects is active, press the **STATUS** button until the display reads off (OF).

Turn the Stompbox Modeling Off

To turn the Stompbox Modeling off for this preset, do the following

1. Press the **EFFECT SELECT DOWN** button until the Stompbox LED is lit.
2. If the display indicates that it is active, press the **STATUS** button until the display reads off (OF).

Creating a Preset

Adjust the Noise Gate

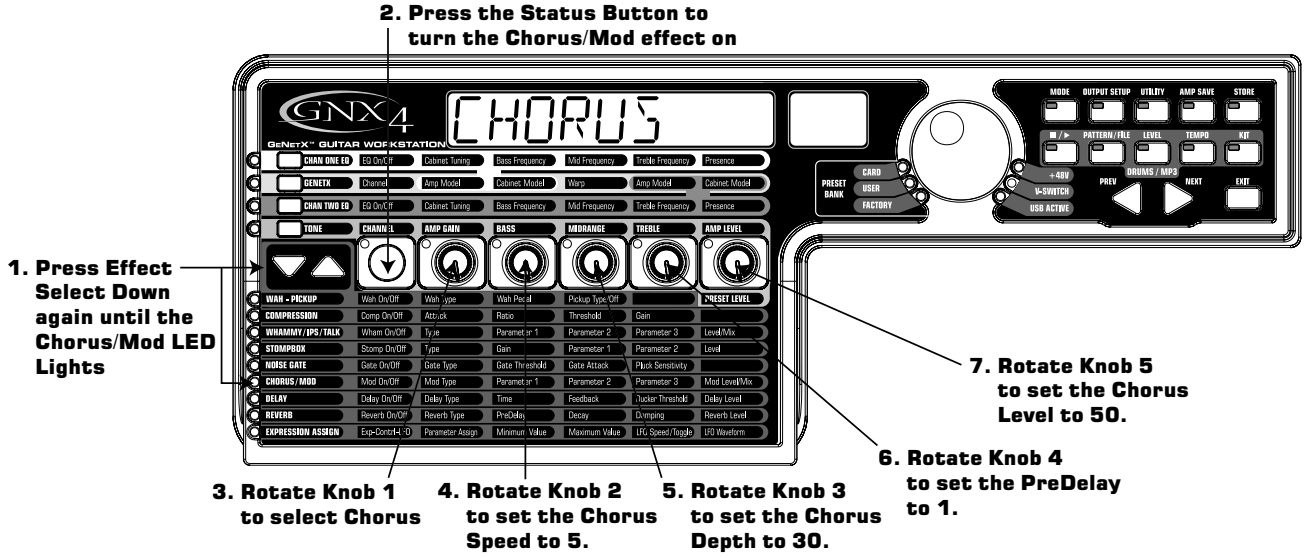
For our example, we want our Noise Gate to open quickly with a relatively weak signal. This type of gate uses the Silencer™ with a low threshold and short attack time. To create this type of Noise Gate, do the following:

1. Press the **AMP FOOTSWITCH** to select the Channel 2 Amp (CH2 AMP), our high gain model. (The GNX4 must be in **Stompbox/Control** mode to complete this function.)
2. Press the **EFFECT SELECT DOWN** button and the Noise Gate's LED lights.
3. If the display reads off (OF), press the **STATUS** button until the display reads on (On).
4. Rotate **Knob 1** until the display reads SILENCER for the type of gate.
5. Rotate **Knob 2** to set the Threshold to 15 (this may need to be adjusted depending upon your guitar).
6. Rotate **Knob 3** to set the Attack Time to 0 (fast attack).

Select and Adjust the Chorus

Next we wanted to thicken up the sound, by adding a subtle Chorus effect, in the following manner:

1. Press the **EFFECT SELECT DOWN** button again and the LED in the Chorus/Mod row lights.
2. If the display reads off (OF), press the **STATUS** button until the display reads on (On).
3. Rotate **Knob 1** until the display reads Chorus (CHORUS) for the effect type.
4. Rotate **Knob 2** to set the Chorus Speed to 5.
5. Rotate **Knob 3** to set the Chorus Depth to 30.
6. Rotate **Knob 4** to set the PreDelay to 1.
7. Rotate **Knob 5** to set the Chorus Level to 50.



Turn the Delay Off

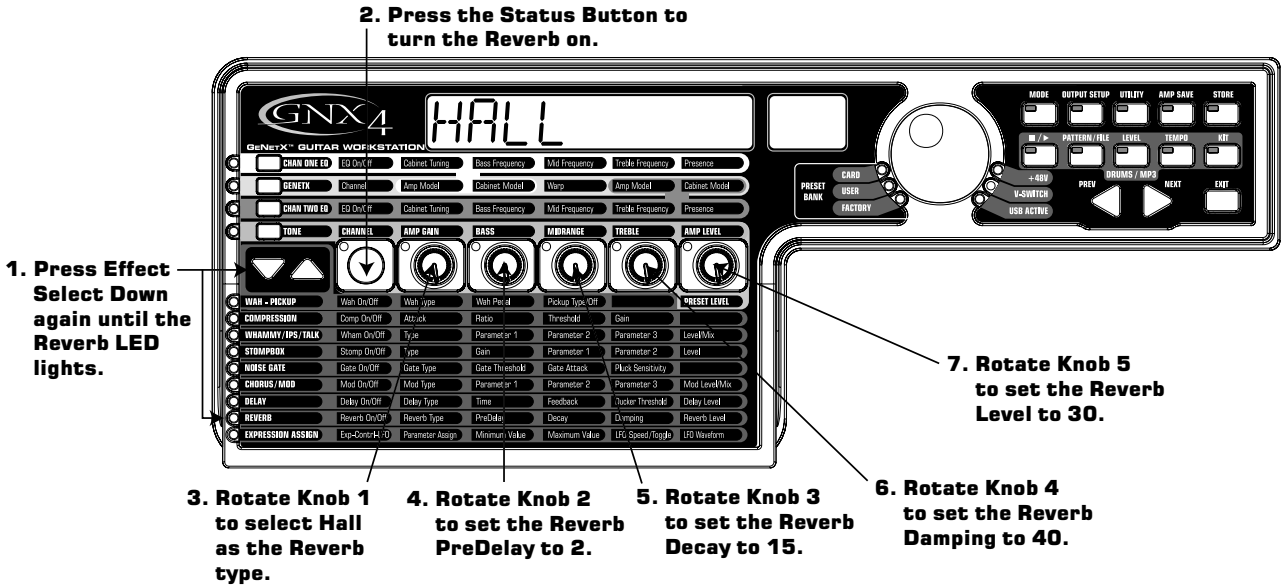
To bypass the Delay, do the following:

1. Press the **EFFECT SELECT DOWN** button until the LED in the Delay row lights.
2. If the display reads on (On), press the **STATUS** button until the display reads off (OF).

Select and Adjust the Reverb

In our example preset we wanted a little bit of Hall Reverb to provide some ambience. To add the reverb, do the following:

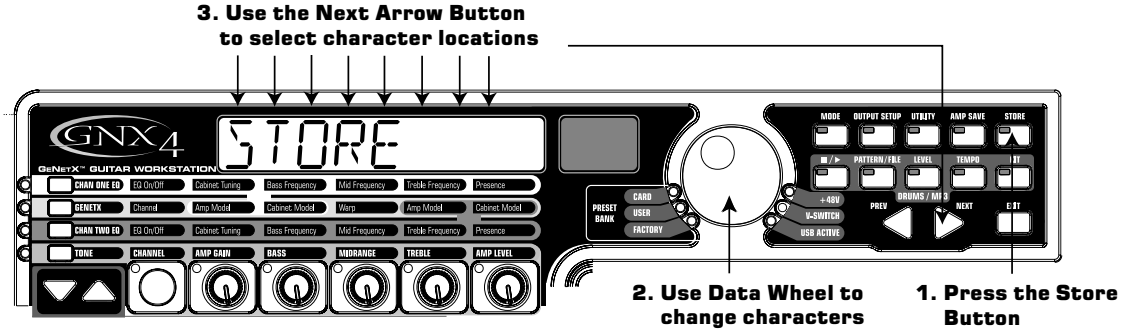
1. Press the **EFFECT SELECT DOWN** button until the LED in the Reverb row lights.
2. If the display reads off (OF), press the **STATUS** button until the display reads on (On).
3. Rotate **Knob 1** to select Hall (HALL) for the Reverb Type.
4. Rotate **Knob 2** to set the Reverb Predelay to 2.
5. Rotate **Knob 3** to set the Reverb Decay to 15.
6. Rotate **Knob 4** to set the Reverb Damping to 40.
7. Rotate **Knob 5** to set the Reverb Level to 30.



Store the Preset

The last step is to store our changes to a User Preset. If we changed presets or turned the GNX4 off without storing these settings, it would forget what we had done and revert back to the original preset. To store the preset, do the following:

1. Press **STORE**. The first letter in the display begins to flash. Since this is an example preset, let's name the preset EXAMPLE.
2. Rotate the **DATA WHEEL** until the flashing character in the display is an E.
3. Press the **NEXT** button once and the second character begins to flash.
4. Rotate the **DATA WHEEL** again until the flashing character is an X. Continue using the Next Arrow button to select the character location and the **DATA WHEEL** to change the characters.



5. Once the Display reads EXAMPLE, press **STORE** again. The numbers in the red numeric display are flashing.
6. Rotate the **DATA WHEEL** to select 48 as the destination.
7. Press **STORE** once more to save the preset.

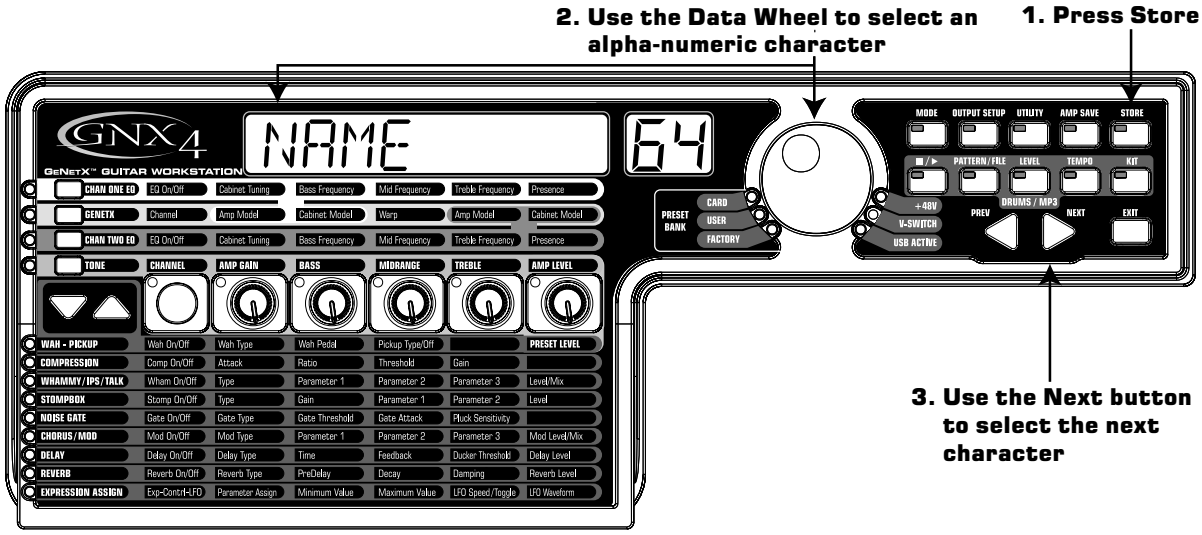
Congratulations! You have successfully created a Preset.

Storing/Copying a Preset

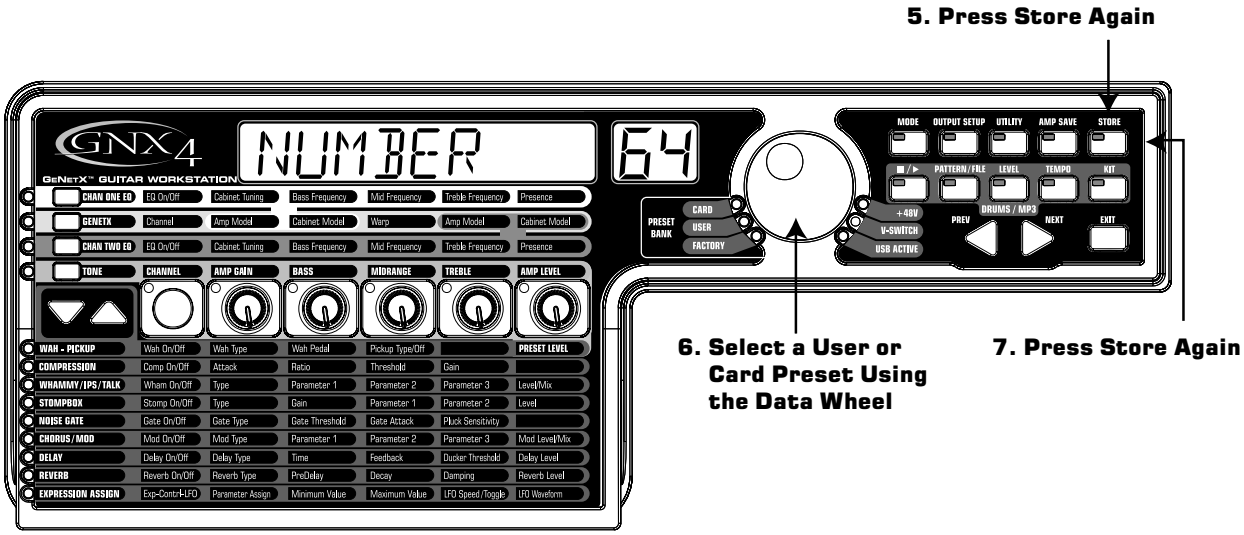
Storing a Preset

Once you have modified the Amp Models, Cabinet Types, and Effect Parameters, the Store Button LED flashes indicating you have changed a parameter and need to store the changes to a User Preset location or to a Compact Flash Card Preset location in order to recall them later. The following steps outline the procedure for storing a preset:

1. Press the **STORE** button. The first letter of the preset name begins flashing.
2. Use the **DATA WHEEL** to select the alpha-numeric character.
3. Press the **NEXT** button to select the next character to the right, and the **PREV** button to select the previous character to the left.



4. Repeat steps 2 and 3 until you are finished naming the new preset.
5. Press the **STORE** button again. The current preset location will then flash in the red display.
6. Select the User or Card Preset location using the **DATA WHEEL**.
7. Press the **STORE** button again to finish.



Copying a Preset

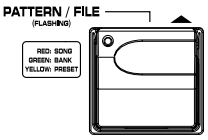
To copy one preset to another preset location, begin by selecting the preset you want to copy, then follow the steps listed above.

Press **EXIT** at any time during the procedure to abort the store process.

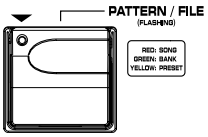
Footswitch Functions for Modes

The GNX4's Footswitches perform different functions specific to the Mode that has been selected. Listed below are descriptions of each footswitch's function within each of the three Modes.

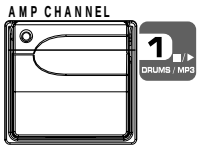
Preset Mode - Green



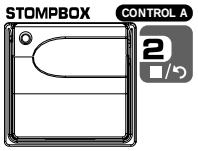
Bank Up Footswitch - Selects the next bank of presets. Pressing and holding this footswitch scrolls up through banks. When a new bank is selected the 1 through 5 footswitch LEDs will strobe left to right prompting the user to select a preset. If a preset is not selected within 5 seconds, the GNX4 returns to the currently selected bank and preset. Pressing and holding both the **Bank Up** and **Bank Down Footswitches** together will temporarily enable both footswitches to navigate through the GNX4's drum patterns or user MIDI files and MP3s stored on an optional CF card.



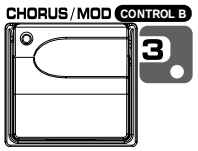
Bank Down Footswitch - Selects the previous bank of presets. Pressing and holding this footswitch scrolls down through banks. When a new bank is selected the 1 through 5 footswitch LEDs will strobe left to right prompting the user to select a preset. If a preset is not selected within 5 seconds, the GNX4 returns to the currently selected bank and preset.Pressing and holding both the **Bank Up** and **Bank Down Footswitches** together will temporarily enable both footswitches to navigate through the GNX4's drum patterns or user MIDI files and MP3s stored on an optional CF card.



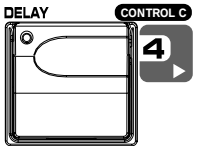
Footswitch 1 - Selects the first preset in the active bank. A second press puts the GNX4 into **Bypass** or selects the previous preset if **Preset Bounceback** is enabled (see page 22 for more instructions on the **Preset Bounceback** function). Pressing and holding **Footswitches 1** and **2** together will enable or disable the **Drums/MP3 Sync** button in the **Recorder Panel**.



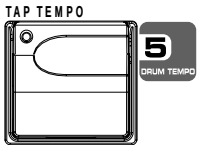
Footswitch 2 - Selects the second preset within the active bank. A second press puts the GNX4 into **Bypass** or selects the previous preset if **Preset Bounceback** is enabled (see 22 for more instructions on the **Preset Bounceback** function). Pressing and holding **Footswitches 1** and **2** together will enable or disable the **Drums/MP3 Sync** button in the **Recorder Panel**. Pressing and holding **Footswitches 2** and **3** together will bypass the GNX4's effects and amp models.



Footswitch 3 - Selects the third preset in the active bank. A second press puts the GNX4 into **Bypass** or selects the previous preset if **Preset Bounceback** is enabled (see 22 for more instructions on the **Preset Bounceback** function). Pressing and holding **Footswitches 2** and **3** together will bypass the GNX4's effects and amp models. Pressing and holding **Footswitches 3** and **4** together accesses the **Tuner**.



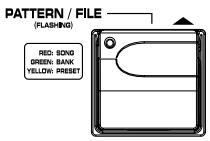
Footswitch 4 - Selects the fourth preset in the active Bank. A second press puts the GNX4 into **Bypass** or selects the previous preset if **Preset Bounceback** is enabled (see 22 for more instructions on the **Preset Bounceback** function). Pressing and holding **Footswitches 3** and **4** together accesses the **Tuner**. Pressing and holding **Footswitches 4** and **5** together will change the Footswitch **Modes**.



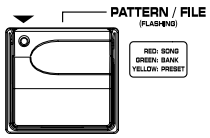
Footswitch 5 - Selects the fifth preset in the active Bank. A second press puts the GNX4 into **Bypass** or selects the previous preset if **Preset Bounceback** is enabled (see page 22 for more instructions on the **Preset Bounceback** function). Pressing and holding **Footswitches 4** and **5** together will change the Footswitch **Modes**.

Footswitch Functions for Modes

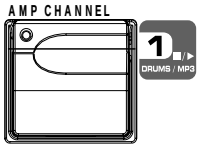
Stompbox/Control Mode - Yellow



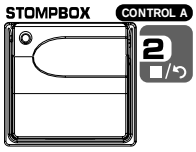
Preset Up Footswitch - Selects the next preset. Pressing and holding this footswitch scrolls up through presets. After releasing, the preset that is landed on is loaded and becomes active. Pressing and holding both the **Preset Up** and **Preset Down Footswitches** together will temporarily enable both footswitches to navigate through the GNX4's drum patterns or user MIDI files and MP3s stored on an optional CF card.



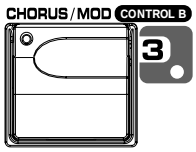
Preset Down Footswitch - Selects the previous preset. Pressing and holding this footswitch scrolls down through presets. After releasing, the preset that is landed on is loaded and becomes active. Pressing and holding both the **Preset Up** and **Preset Down Footswitches** together will temporarily enable both footswitches to navigate through the GNX4's drum patterns or user MIDI files and MP3s stored on a CF card.



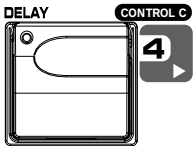
Amp Channel Footswitch selects a preset's amp channel (CH1 AMP, CH2 AMP, or WARP AMP). This footswitch's function can be changed in the **EXPRESSION ASSIGN** menu. (See page 45 for more information regarding **Expression Pedal Assignment**.) Pressing and holding **Footswitches 1** and **2** together will enable and disable the **Drums/MP3 Sync** button in the **Recorder Panel**.



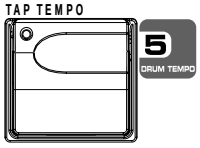
Stompbox (Control A) Footswitch turns the Stompbox Modeling on and off. This footswitch's function can be changed in the **EXPRESSION ASSIGN** menu to control up to 3 parameters at one time and can be setup as a toggle or momentary switch. (See page 45 for more information regarding **Expression Pedal Assignment**.) Pressing and holding **Footswitches 1** and **2** together will enable or disable the **Drums/MP3 Sync** button in the **Recorder Panel**. Pressing and holding **Footswitches 2** and **3** together will **Bypass** the GNX4's effects and amp models.



Chorus/Mod (Control B) Footswitch turns the Chorus/Mod Effects on and off. This footswitch's function can be changed in the **EXPRESSION ASSIGN** menu to control up to 3 parameters at one time and can be setup as a toggle or momentary switch. (See page 45 for more information regarding **Expression Pedal Assignment**.) Pressing and holding **Footswitches 2** and **3** together will **Bypass** the GNX4's effects and amp models. Pressing and holding **Footswitches 3** and **4** together accesses the **Tuner**.



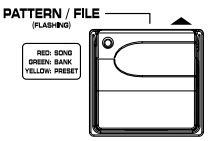
Delay (Control C) Footswitch turns the Delay on and off. This footswitch's function can be changed in the **EXPRESSION ASSIGN** menu to control up to 3 parameters at one time and can be setup as a toggle or momentary switch. (See page 45 for more information regarding **Expression Pedal Assignment**.) Pressing and holding **Footswitches 3** and **4** together accesses the **Tuner**. Pressing and holding **Footswitches 4** and **5** together will change the Footswitch **Modes**.



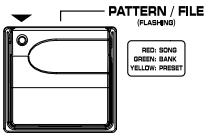
Tap Tempo Footswitch is used for setting the repeat time of the Delay effect. By tapping this switch repeatedly, you can set the delay to repeat in time with your music. Pressing and holding **Footswitches 4** and **5** together will change the GNX4's Footswitch **Modes**.

Footswitch Functions for Modes

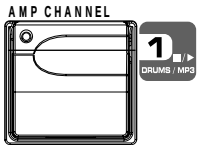
Recorder Mode - Red



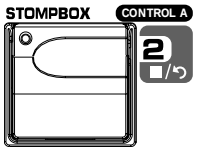
Song Up Footswitch - Selects the next song. Pressing and holding both the **Song Up** and **Song Down Footswitches** simultaneously will temporarily enable these footswitches to navigate through the GNX4's drum patterns or user MIDI files and MP3s stored on an optional CF card.



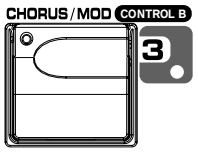
Song Down Footswitch - Selects the previous song. Pressing and holding both the **Song Up** and **Song Down Footswitches** together will temporarily enable these footswitches to navigate through the GNX4's drum patterns or user MIDI files and MP3s stored on an optional CF card.



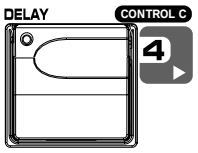
Drums/MP3 Stop/Play Footswitch - Starts and stops playback of the GNX4's drum patterns, or user MIDI files and MP3s in the drum machine file list. Pressing and holding **Footswitches 1** and **2** together will enable or disable the **Drums/MP3 Sync** button in the **Recorder Panel**.



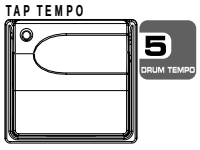
Stop/Undo Footswitch - Stops the recorder. Pressing and holding this footswitch deletes the last track recorded or can delete the current song. Pressing and holding **Footswitch 1** and **2** together will enable or disable the **Drums/MP3 Sync** button in the **Recorder Panel**. Pressing and holding **Footswitches 2** and **3** together will **Bypass** the GNX4's effects and amp models.



Record Footswitch - Enables tracks for recording and starts the recorder. It is also used for setting the JamMan™ delay loop length and arming and disarming record when overdubbing onto the active track(s) being recorded. Pressing and holding **Footswitches 2** and **3** together will **Bypass** the GNX4's effects and amp models. Pressing and holding **Footswitches 3** and **4** together accesses the **Tuner**.



Playback Footswitch - Starts playback of the recorder. It is also used for setting the JamMan delay loop length by putting the first track (or 2 tracks if stereo recording) that were recorded into playback and automatically arming the next track (or two tracks if stereo recording) to continue recording the next loop layer. Pressing and holding **Footswitches 3** and **4** together accesses the **Tuner**. Pressing and holding **Footswitches 4** and **5** together will change the Footswitch **Modes**.



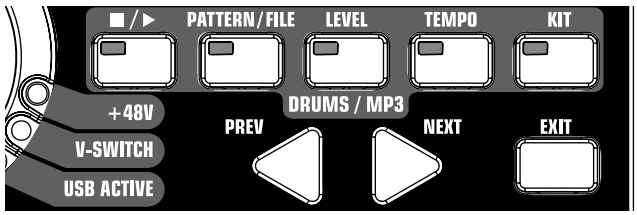
Drum Tempo Footswitch - Tapping this footswitch while the drum machine is on sets the playback tempo. It must be tapped at least 2 times within 3 seconds to set a tempo. When a new song is selected from the **Recorder Panel**, tapping this button will set the song tempo (which sets the tempo for any drum pattern or MIDI file if selected) as well. Once a track is recorded in a song, the tempo of a song cannot be changed by tapping this footswitch until the song has been deleted. You can still tap the tempo when using the drum machine by itself but not with a previously recorded song. The Drum Tempo Footswitch also works with MIDI files, however it does not function when playing MP3s. The Tempo can range from 40 to 240 beats per minute.

Drum Tempo is ignored if a song already has tracks recorded and the LED will flash at the song tempo. Pressing and holding **Footswitches 4** and **5** together will change the Footswitch **Modes**.

Drum Machine/MP3 Player

The GNX4 is equipped with a Built-in General MIDI Drum Machine and MP3 Player. You can select from a variety of Factory and User created MIDI drum patterns and drum kits or your own MP3s to play along with. The GNX4's Drum Machine/MP3 Player can be set up in different ways as shown below:

Control Panel - Drum Machine/MP3 Player Buttons



■/▶ (STOP/PLAY)

Press this button to start or stop the drum machine or MIDI File/MP3 playback.

PATTERN/FILE

Press this button to select the Pattern/File library. Use the **DATA WHEEL** or **PREV** and **NEXT** buttons to select one of the GNX4's internal drum patterns. If a CF card is present in the memory card slot and MP3s and MIDI files are resident on the card, you can select these files for playback as well. MIDI and MP3 files must be resident in the GNX4>MIDI and GNX4>MP3 directories respectively on your compact flash card in order for them to be recognized. Please refer to the **Compact Flash Card Usage** section of this manual for more information. There are 110 different drum patterns and 5 metronome settings available including:

Internal Drum Pattern List

8TH BEAT	1-10	FUNK	1-10	PROG 6/8	3	PERCUSN	1-5
16THBEAT	1-5	GROOVE	1-5	PROG 7/8	4-5	METR 4/4	1
ROCK	1-10	COUNTRY	1-5	HIPHOP	1-5	METR 3/4	1
HARDROCK	1-10	R AND B	1-5	DANCE	1-5	METR 5/8	1
METAL	1-10	JAZZ	1-5	LATIN	1-5	METR 7/8	1
BLUES	1-5	PROG	1-2	REGGAE	1-5	METRONOM	5

LEVEL

Press this button to select the drum machine playback level. Using the **DATA WHEEL** or **PREV** and **NEXT** buttons to adjust the volume level of the drum machine or MP3file playback.

TEMPO

Press this button to select the Drum Machine tempo setting. Use the **DATA WHEEL** or **PREV** and **NEXT** buttons to adjust the playback speed of the drum or MIDI file being played back. Tempo range is 40-240 BPM (beats per minute). The **TEMPO** button has no function when MP3 files are selected .

KIT

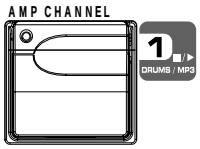
The GNX4 is equipped with several drum kits that cover a variety of music genres. Press this button to select the drum kit menu. Use the **DATA WHEEL** or **PREV** and **NEXT** buttons to change between the different drum kits available. The **KIT** button has no function when MP3 files are selected. Listed below are the drum kit types:

Internal Drum Kit List

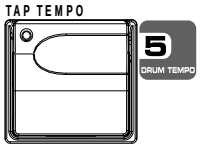
ROCK	POWER	POP	JAZZBRSH
ALTERNTV	HEAVY	STUDIO	TECHNO

Footswitch Operation

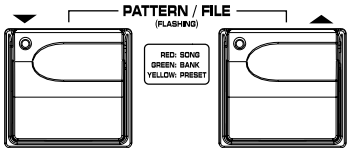
When the GNX4 is in Recorder Mode, **FOOTSWITCH 1** and **5** control drum machine operations.



Drums/MP3 Stop/Play Footswitch - Starts and stops playback of drum patterns or user MIDI files and MP3s in the drum machine file list. Pressing and holding **Footswitches 1** and **2** simultaneously will enable or disable the **Drums/MP3 Sync** button in the **Recorder Panel**.



Drum Tempo Footswitch - Tapping this footswitch while the drum machine is on sets the playback tempo. It must be tapped at least 2 times within 3 seconds to set a tempo. When a new song is selected from the **Recorder Panel**, tapping this button will set the song tempo (which sets the tempo for any drum pattern or MIDI file if selected) as well. Once a track is recorded in a song, the tempo of a song cannot be changed by tapping this footswitch until the song has been deleted. You can still tap the tempo when using the drum machine by itself but not with a previously recorded song. The Drum Tempo Footswitch also works with MIDI files, however it does not function when playing MP3s. The Tempo can range from 40 to 240 beats per minute.



Pattern/File Footswitches - From any of the GNX4's Footswitch **Modes**, you can press and hold the **UP/DOWN** footswitches simultaneously to enable them to select any factory drum patterns or any user MIDI files and MP3s that reside on an optional compact flash card. To access these patterns and files using the footswitches, do the following:

1. Press and hold the **UP/DOWN** Footswitches until PAT/FILE appears in the display. The currently selected pattern or file will then appear in the display. The **UP/DOWN** Footswitches will now flash indicating they are available to select any of the GNX4's drum patterns, user MIDI files, or MP3s.
2. Press either the **UP or DOWN** Footswitch to navigate through the available patterns and files or press and hold down either footswitch to scroll through the patterns. You can have the drum machine playing if you want to hear the files as they are selected.
3. If neither footswitch is pressed within five seconds, the **UP/DOWN** Footswitches will stop flashing and return to their normal function depending on which mode is currently selected.

GNX4 MP3 Demo (Internal)

The GNX4 comes with an internal 30 second MP3 demo that permanently resides in GNX4 memory (not on a Compact Flash card). To start the demo, remove the Compact Flash card (if one is installed in your GNX4). Press the **PLAY** button located on the GNX4's Recorder Panel and the demo will start playing. At the end of the song it will automatically loop and playback until you press the Recorder Panel **STOP** button. All other Recorder Panel buttons and GNX4 footswitches are effectively disabled when the MP3 demo is playing.

Audio Routing for Recording

This section will cover the GNX4's inputs and how they are routed for recording internally using Compact Flash memory and recording on your computer via USB.

GNX4 Inputs and Recorder Routing

The GNX4's has four audio inputs, the Guitar Input, Mic Input, and Left/Right Line Inputs. It also has a MIDI input. Each of these inputs can be used to record audio and each has multiple different routing configurations available. For instance, in a given recording session you may want to record guitar with effects, a dry guitar only, vocal with or without effects, or both the guitar processing and the line inputs. The GNX4's flexible routing lets you record each of these inputs in different combinations and even lets you utilize the GNX4's effects processing if desired, giving you a wide variety of options for your particular recording application. Having an understanding of how the GNX4's inputs and routing options function is the best way to optimize your recording experience.

GNX4 Input Sources

The GNX4 has two recorder input selections called Input Sources. Each of these Input Sources offer several routing configurations for a variety of recording options. The Input Sources are selected using the **CF/USB 1-2 SRC** and **USB 3-4 SRC** buttons in the Recorder Panel and the **DATA WHEEL**. Up to four tracks of audio can be recorded on the computer via USB (two tracks maximum to the onboard recorder using an optional CF memory card). Each Input Source routes a pair of signals (except MONO FX, MONO ALL, DRY GUITAR, DRY MIC, and DRUMS MN which are mono signals) to either the computer or the onboard recorder. The Input Sources signal combinations are as follows:

(Compact Flash) CF/USB 1-2 Source

STEREOFX - All input sources that are routed through the GNX4's effects are sent as a stereo pair to two available tracks on the onboard recorder or up USB 1 and 2 channels. Drums or MP3, Dry Mic, and Dry Line are not recorded.

STEROALL - All input sources that are routed through the GNX4's effects, Drums or MP3, Dry Mic, Dry Line, and Recorder Click Track are sent as a stereo pair to two available tracks on the onboard recorder or up USB 1 and 2 channels.

MONO FX - All input sources that are routed through the GNX4's effects are summed to mono and sent to one available track on the onboard recorder or up the USB 1 channel. Nothing is sent up USB 2 channel. Drums or MP3, Dry Mic, and Dry Line are not recorded.

MONO ALL - All input sources that are routed through the GNX4's effects, Drums or MP3, Dry Mic, Dry Line, and Recorder Click Track are summed to mono and sent to one available track on the onboard recorder or up the USB 1 channel. Nothing is sent up USB 2 channel.

SUM+DGTR - All input sources that are routed through the GNX4's effects are summed to mono and sent to one available track of the onboard recorder or up the USB 1 channel. Dry guitar is sent to the other available track of the onboard recorder or up the USB 2 channel.

SUM+MIC - All input sources that are routed through the GNX4's effects are summed to mono and sent to one available track of the onboard recorder or up the USB 1 channel. Dry mic signal is sent to the other available track of the onboard recorder or up the USB 2 channel.

DGTR+MIC - Dry guitar signal is sent to one available track of the onboard recorder or up the USB 1 channel. Dry mic is sent to the other available track of the onboard recorder or up the USB 2 channel.

DRY LINE - Dry Line Left signal is sent to one available track of the onboard recorder or up the USB 1 channel. Dry Line Right is sent to the other available track of the onboard recorder or up the USB 2 channel.

DRYGUITR - Dry Guitar signal is sent to an available track of the onboard recorder or up the USB 1 channel. Nothing is sent up the USB 2 channel.

DRY MIC - Dry Mic signal is sent to an available track of the onboard recorder or up the USB 1 channel. Nothing is sent up the USB 2 channel.

DRUMS ST - The GNX4 drums playback or MP3 is sent to two available tracks of the onboard recorder or up the USB 1 and 2 channels.

DRUMS MN - The GNX4 drums playback or MP3 (summed to mono) is sent to one available track of the onboard recorder or up the USB 1 channel. Nothing is sent up the USB 2 channel.

REAMP 1-8/USB - Playback of a pre-recorded, dry guitar track can be routed back through the GNX4's effects processing and recorded back onto two available tracks of the onboard recorder or back up the USB 1 and 2 busses. Selecting REAMP 1-8 determines the source of the dry guitar from the onboard recorder playback. Selecting REAMPUSB determines the source of the dry guitar is from the computer. See **Re-Amping a Guitar Track** on pages 82 and 97 for more information how this feature works.

USB 3-4 Source

USB OFF - USB 3 and 4 are disabled.

DGTR+MIC - Dry guitar signal is sent up the USB 3 channel. Dry mic signal is sent up the USB 4 channel.

DRY LINE - Dry Line Left signal is sent up the USB 3 channel and Dry Line Right signal is sent up the USB 4 channel.

DRYGUITR - Dry guitar signal is sent up the USB 3 channel. Nothing is sent up the USB 4 channel.

DRY MIC - Dry mic signal is sent up the USB 3 channel. Nothing is sent up the USB 4 channel.

DRUMS ST - GNX4 drum playback is sent stereo up the USB 3 and 4 channels.

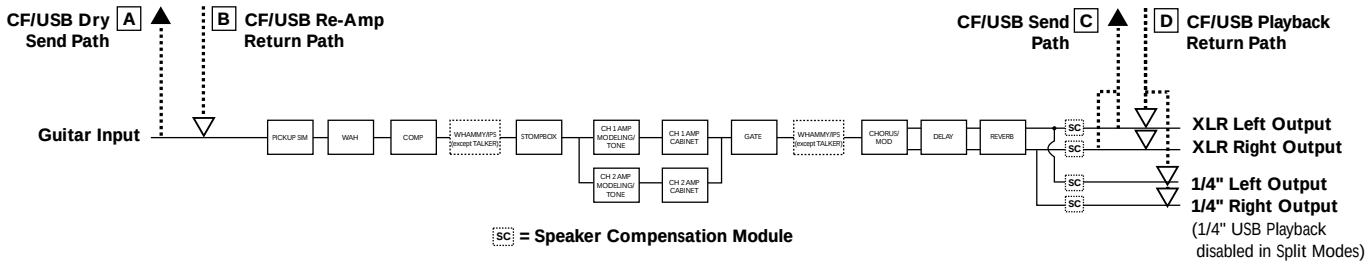
DRUMS MN - GNX4 drum playback is sent mono up the USB 3 channel. Nothing is sent up the USB 4 channel.

Audio Routing for Recording

The following diagrams outline how the different input signals are routed through the GNX4 and out to both the Compact Flash and computer (USB) for recording:

Guitar Signal Routing

The guitar signal is routed from the input through the GNX4's effects processing and then to the pairs of outputs. The signal sent to the onboard recorder and up USB can be tapped off either at the input (**CF/USB Send Path A**), or at the end of the effects chain (**CF/USB Send Path C**). Signals recorded from **CF/USB Send Path A** can be played back later through the GNX4 for re-amping. See **Re-Amping a Guitar Track** on pages 97 for more information on how this feature works.



The guitar signal has two paths in which it is routed to the onboard recorder and up the USB port to the computer. Path **A** taps the guitar signal off at the input and sends unprocessed signal to the GNX4's recorder and up the USB port. Path **C** taps the guitar signal at the output of the GNX4 and can include any effects processing that may be used. Below is a matrix to show where the signal is tapped based on how the **CF/USB 1-2 Source** and the **USB 3-4 Source** settings are configured.

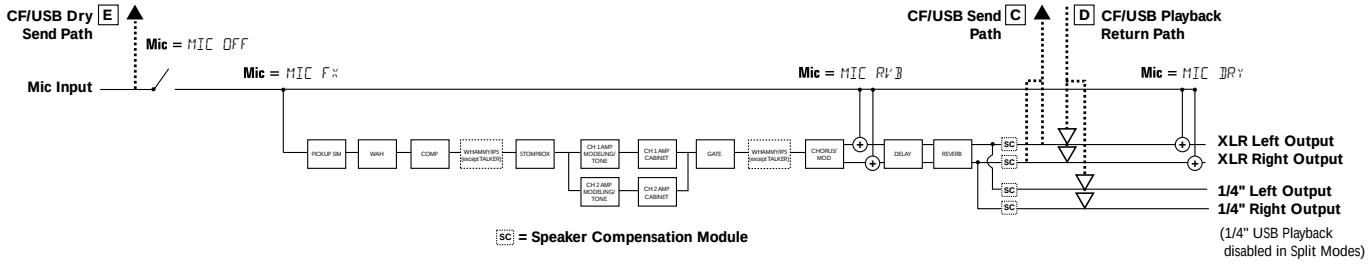
Routing of Guitar Input to CF/USB

	CF/USB 1-2 Source												
	STEREOFX	STEROALL	MONO FX	MONO ALL	SUM+DGTR	SUM+MIC	DGTR+MIC	DRY LINE	DRY:GUITR	DRY MIC	DRUMS ST	DRUMS MN	REAMP I-B:USB
Guitar	C	C	C	C	C,A	C	A	•	A	•	•	•	•

	USB 3-4 Source						
	USB OFF	DGTR+MIC	DRY LINE	DRY:GUITR	DRY MIC	DRUMS ST	DRUMS MN
Guitar	•	A	•	A	•	•	•

Mic Signal Routing

The mic signal can be routed in different ways through the GNX4. MIC OFF disables the mic input from being heard, but it still may be recorded using STEROALL, MONO ALL, SUM+MIC, DGTR+MIC, or DRY MIC as the input source. MIC DRY routes the mic signal around the GNX4's effects processing and mixes it in at the outputs. MIC RVB routes the mic signal only through the GNX4's Delay and Reverb modules. MIC FX routes the mic signal through all of the GNX4's effects.



Audio Routing for Recording

The mic signal, as can be seen in the previous Mic Signal Routing diagram, has two paths in which it is routed to the onboard recorder and up the USB port to the computer. Path **E** taps the mic signal off at the mic input and sends unprocessed signal up to the USB port. Path **C** taps the signal at the output of the GNX4 and can include any effects processing that may be used. Below is a matrix to show where the signal is tapped based on how the **Mic**, **CF/USB 1-2 Source**, and **USB 3-4 Source** settings are configured.

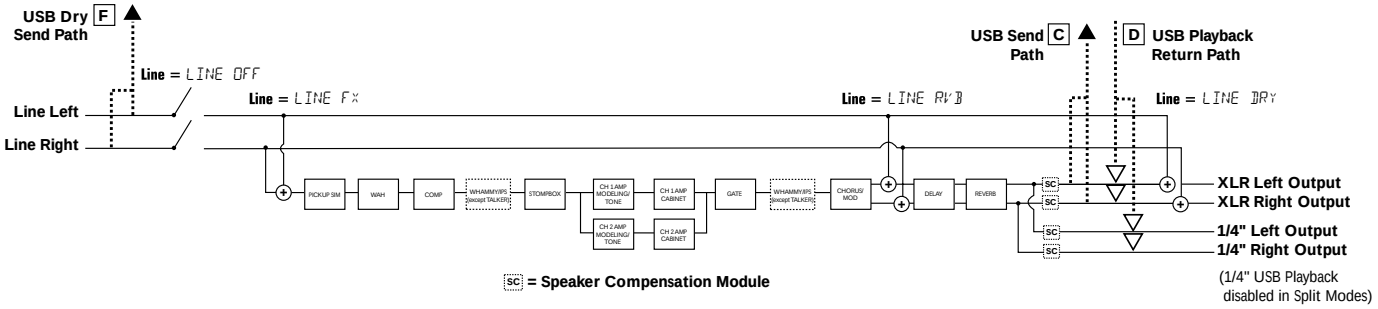
Routing of Mic Inputs to CF/USB

Mic	CF/USB 1-2 Source												
	STEREOFX	STEROALL	MONO FX	MONO ALL	SUM+DGTR	SUM+MIC	DGTR+MIC	DRY LINE	DRYGUITR	DRY MIC	DRUMS ST	DRUMS MN	REAMP 1-8/USB
MIC OFF	•	E	•	E	•	E	E	•	•	E	•	•	•
MIC DRY	•	E	•	E	•	E	E	•	•	E	•	•	•
MIC RVB	C	C,E	C	C,E	C	C,E	E	•	•	E	•	•	•
MIC FX	C	C,E	C	C,E	C	C,E	E	•	•	E	•	•	•

Mic	USB 3-4 Source						
	USB OFF	DGTR+MIC	DRY LINE	DRYGUITR	DRY MIC	DRUMS ST	DRUMS MN
MIC OFF	•	E	•	•	E	•	•
MIC DRY	•	E	•	•	E	•	•
MIC RVB	•	E	•	•	E	•	•
MIC FX	•	E	•	•	E	•	•

Line Signal Routing

The Line signals, like the mic signal, can be routed in different ways through the GNX4. LINE OFF disables the line inputs from being heard but dry line signal can still be recorded using STEROALL, MONO ALL, and DRY LINE as the input source. LINE DRY routes the left and right line signals around the GNX4's effects processing and mixes them in at the left and right outputs respectively. LINE RVB routes the line signal only through the GNX4's Delay and Reverb modules. LINE FX sums the left and right input signals together and then routes this signal through all the GNX4's effects.



The line input signals, as can be seen in the previous Line Signal Routing diagram, has two paths in which they are routed to the onboard recorder and up the USB port to the computer. Path **F** taps the line input signals off at the line input and sends unprocessed signal to the GNX4's recorder and up the USB port. Path **C** taps these signals at the output of the GNX4 and can include any effects processing that may be used. Below is a matrix to show where the signal is tapped based on how the **Line**, **CF/USB 1-2 Source**, and **USB 3-4 Source** settings are configured.

Routing of Line Inputs to CF/USB

Line	CF/USB 1-2 Source												
	STEREOFX	STEROALL	MONO FX	MONO ALL	SUM+DGTR	SUM+MIC	DGTR+MIC	DRY LINE	DRYGUITR	DRY MIC	DRUMS ST	DRUMS MN	REAMP 1-8/USB
LINE OFF	•	F	•	F	•	•	•	F	•	•	•	•	•
LINE DRY	•	F	•	F	•	•	•	F	•	•	•	•	•
LINE RVB	C	C,F	C	C,F	C,F	C	•	F	•	•	•	•	•
LINE FX	C	C,F	C	C,F	C,F	C	•	F	•	•	•	•	•

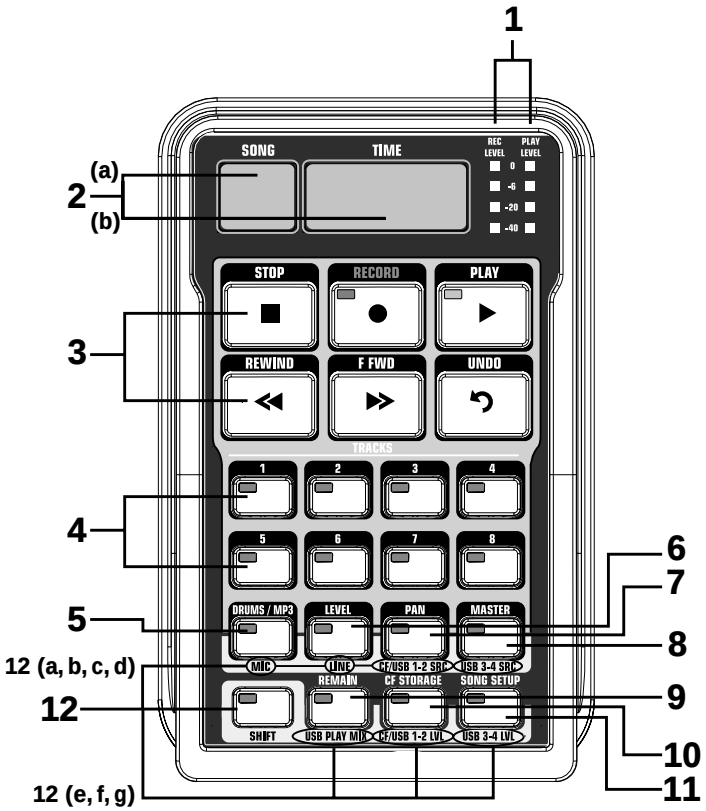
Line	USB 3-4 Source						
	USB OFF	DGTR+MIC	DRY LINE	DRYGUITR	DRY MIC	DRUMS ST	DRUMS MN
LINE OFF	•	•	F	•	•	•	•
LINE DRY	•	•	F	•	•	•	•
LINE RVB	•	•	F	•	•	•	•
LINE FX	•	•	F	•	•	•	•

The GNX4's 8-Track Recorder

The GNX4's on-board 8-track digital recorder is the easiest, friendliest multi-track recorder you have ever used. Rather than having to understand all the mechanics of recording, the GNX4's recorder is designed to be virtually hands-free, meaning all you have to do is press a footswitch to get your ideas recorded. The GNX4 recorder also features a recorder panel interface with standard transport controls, 8 track buttons, Pan, Level, and Master Level buttons for controlling and mixing your projects. Other functions include Time Remaining, Song Setup, and Input Source buttons which are used for setting up what input source you want to record or what MP3 or MIDI file you want to use in a song. There are also Record/Playback meters which let you monitor the levels as you create your song.

Since there is no onboard recording memory, you must first insert an optional Compact Flash (CF) memory card into the card slot on the rear panel to begin recording tracks. The GNX4 supports most CF cards but obviously, the larger the card size, the more recording time is available. (See the **Using Compact Flash Memory Cards** section on page 75 for memory specifications.)

Recorder Control and USB/Signal Routing Panel



The recorder panel is divided into 12 basic sections:

1. METERS – These two meters show the level of tracks being recorded (**REC LEVEL** meter) and the GNX4's recorder playback level (**PLAY LEVEL** meter).

2. DISPLAY – There are 2 different displays on the GNX4's recorder panel

a. SONG – A Song is a group of recorded tracks that are combined to create songs or loops. This display shows the selected Song or Loop for recording and playback.

b. TIME – This display shows elapsed time of recorded material of the current Song when the recorder is playing back tracks. When the **REMAIN** button is on, it will display the amount of recording time left in memory when the recorder is stopped.

3. **TRANSPORT –** The 6 transport buttons just below the displays are used for the record, playback, and search functions of recorded material. They include **STOP**, **RECORD**, **PLAY**, **REWIND**, **FAST FORWARD**, and **UNDO**.
4. **TRACKS –** A Track is an individual memory location in a song that you record audio to. The GNX4 has eight individual tracks that can be recorded to.
5. **DRUMS/MP3 –** This button is used to start the GNX4's drum machine when the recorder begins playing. When the button is lit green, the drum machine will playback the pattern or MIDI file selected in the Song Setup menu. When this button is lit yellow, an MP3 file has been selected in the Song Setup menu to start playing when the recorder begins playing. (See the **Song Setup** section on page 70.) When this button is lit red, the selected pattern, MIDI file, or MP3 file can be recorded to a track if one of the proper recorder sources is selected. (See the **(Compact Flash) CF/USB 1-2 Source** section on page 64.)
6. **LEVEL –** Accesses the playback level for each track.
7. **PAN –** Accesses the pan controls for each track.
8. **MASTER –** This controls the stereo output playback level of tracks recorded on the Compact Flash card.
9. **REMAIN –** When this button is enabled, the **TIME** display shows the remaining recording time available in track minutes when the recorder is stopped. When the recorder is playing back tracks, the display shows the amount of time remaining in the current song.
10. **CF STORAGE –** This button is to be pressed first when files are to be copied to and from the Compact Flash card and your computer's hard drive. When this button is engaged, the compact flash card will appear as a new drive on your computer allowing files to be transferred back and forth. Since file transferring will use up some USB bandwith, it is not recommended that you record audio to the computer when this is active.
11. **SONG SETUP –** Accesses setup options for each song including **Click Track**, **Tempo**, **Pre-Roll**, **Song Repeat**, and more. See more about the **Song Setup** options in the next section.
12. **SHIFT –** When this button is lit, the secondary functions labeled below each button are now active.

    a. **MIC -** Selects the mic input routing menu and how the mic signal is routed through the GNX4's effects processing for both recording and performance.
    b. **LINE -** Selects the line input routing menu and how both line inputs are routed through the GNX4's effects processing for both recording and performance.
    c. **CF/USB 1-2 SOURCE -** Selects what inputs are to be recorded to the onboard recorder or up the USB 1-2 channels.
    d. **USB 3-4 SOURCE -** Selects what inputs are to be recorded up the USB 3-4 channels.
    e. **USB PLAY MIX -** Controls the level balance between the GNX4's processing and the USB stream played back from your computer.
    f. **CF/USB 1-2 LVL -** A gain/attenuation control to optimize the level of sources being recorded to the Compact Flash card and up the USB 1-2 channel.
    g. **USB 3-4 LVL -** A gain/attenuation control to optimize the level of sources being recorded up the USB 3-4 channel.

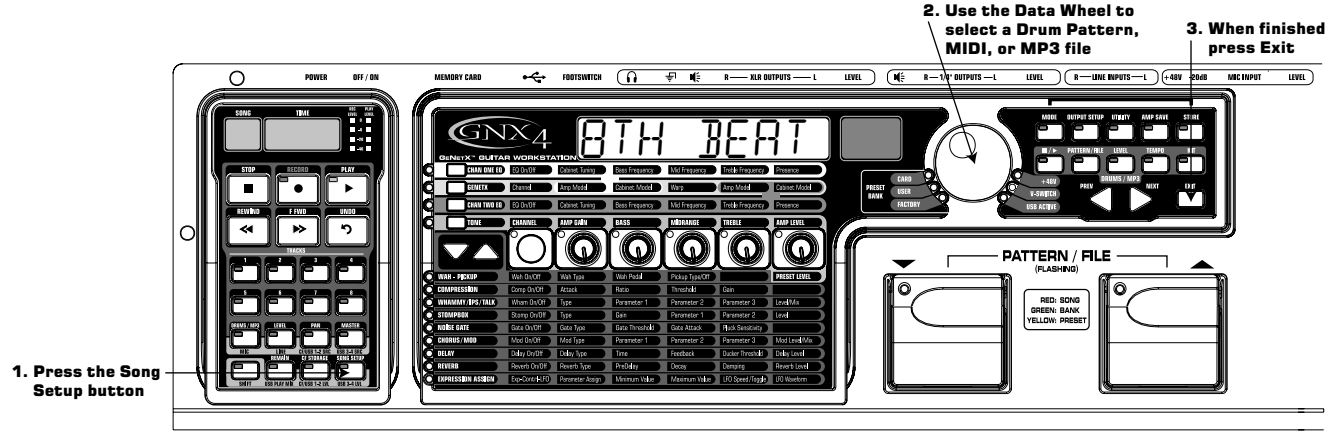
The GNX4's 8-Track Recorder

Song Setup

Before you begin recording your first song, you will want to become acquainted with the recorder Setup functions. Setup functions include: Drums-MP3 (Pattern/File), Drum/MP3 Level, Tempo, Drum Kit, Click Track, Pre Roll, Song Repeat, Auto Stop, Quantize, and Format. These functions dictate how the recorder works for each song. Each song can have these functions setup in different ways so that you can customize how the recorder works depending on your needs. A Song Setup file is saved off to the Compact Flash card for each song and is resaved whenever any changes are made.

Drums/MP3 (Pattern/File)

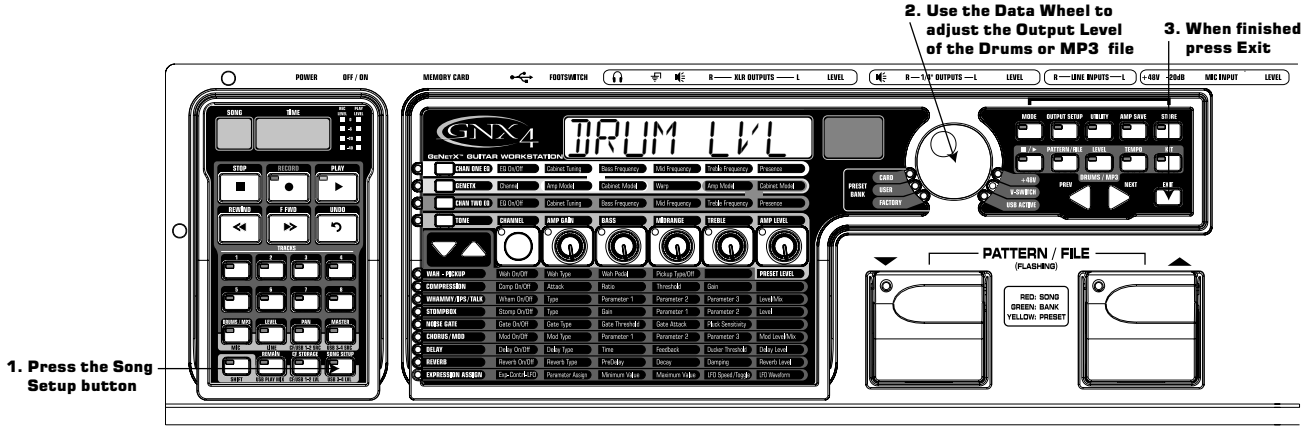
The Drums/MP3 (Pattern/File) setup lets you select one of the GNX4's drum patterns or an external MIDI or MP3 file to be played back along with any recorded audio in a given song. This is a useful feature as it lets you have backing tracks in a song without having to allocate audio tracks to play them. When the **DRUMS/MP3** button is enabled, this setting will override the DRUMS/MP3 Pattern selected in the **Control Panel** when the **PLAY** button is pressed on the recorder. To select a pattern or file that you would like played back with a song, follow these steps:



1. Press the **SONG SETUP** button once and the GNX4's main display will show one of the drum patterns. For example, the 8th Beat pattern will display as 8TH BEAT.
2. Use the **DATA WHEEL** to select a Drum Pattern, MIDI, or MP3 file.
3. When finished, press **EXIT**.

Drums/MP3 Level

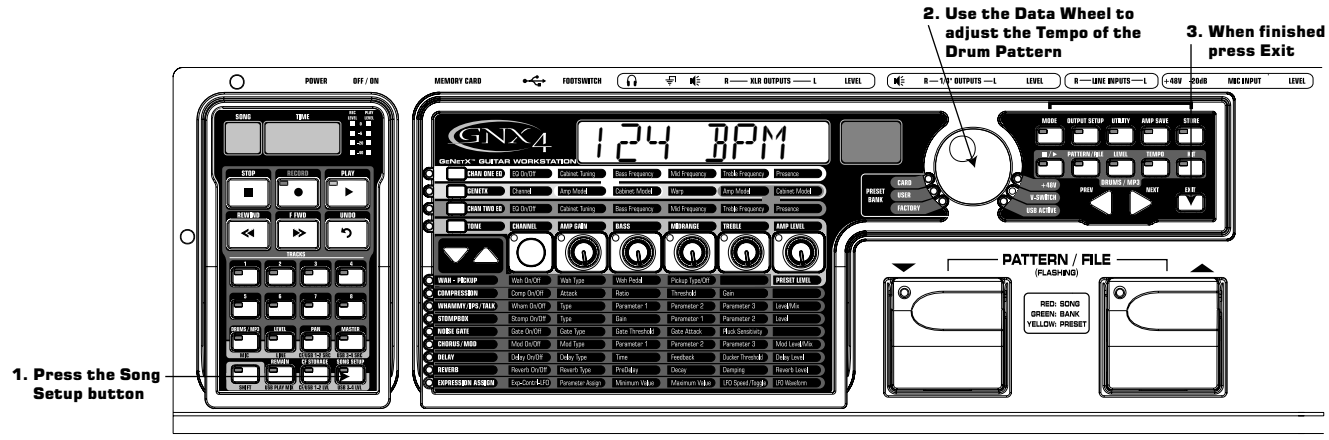
The Drums/MP3 Level setup sets the playback level of the file selected in the Drums/MP3 (Pattern/File) setup menu. When the **DRUMS/MP3** button is enabled in the Recorder Panel and the **PLAY** button is pressed on the recorder, this setting will override the DRUMS/MP3 Level button located in the far right Control Panel. To select a pattern or file that you would like played back with a song, follow these steps:



1. Press the **SONG SETUP** button until the GNX4's main display reads DRUM LVL.
2. Use the **DATA WHEEL** to adjust the output level of a Drum Pattern or MP3 file.
3. When finished, press **EXIT**.

Song Tempo

The Song Tempo setup sets the tempo used by the recorder's Click Track and the GNX4's drum machine during the recording and playback of a song. This tempo should be set before any audio is recorded if the Click Track or drum machine is to be used as a metronome during recording. When the **DRUMS/MP3** button is enabled in the Recorder Panel and the **PLAY** button is pressed on the recorder, this setting will override the DRUMS/MP3 Tempo button located in the far right Control Panel. The Song Tempo function has no control when an MP3 file is selected using the Drums-MP3 (Pattern/File) setup. To set the Song Tempo, follow these steps:



Begin with the recorder stopped.

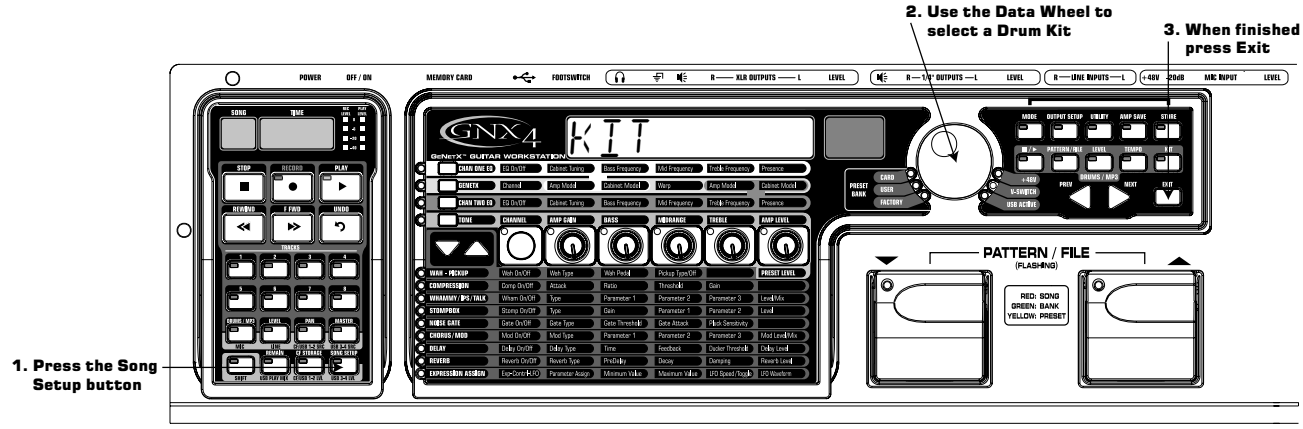
1. Press the **SONG SETUP** button until the GNX4's main display shows the tempo's numeric value measured in beats per minute. For example, 124 beats per minute will display as 124 BPM.
2. Use the **DATA WHEEL** to adjust the tempo.
3. When finished, press **EXIT**.

NOTE: Although the Tempo of a song can be changed after tracks have been recorded, it is not recommended because previously recorded tracks will not be synchronized with the tracks recorded after the change. The Recorder Tempo also controls the Drum Machine tempo when recording or playing a virtual Drum track.

The GNX4's 8-Track Recorder

Drum Kit

The Drum Kit setup selects the drum kit that the Drum Pattern will use during playback. The Drum Kit setup has no function if an MP3 is selected. To select a Drum Kit, follow these steps:

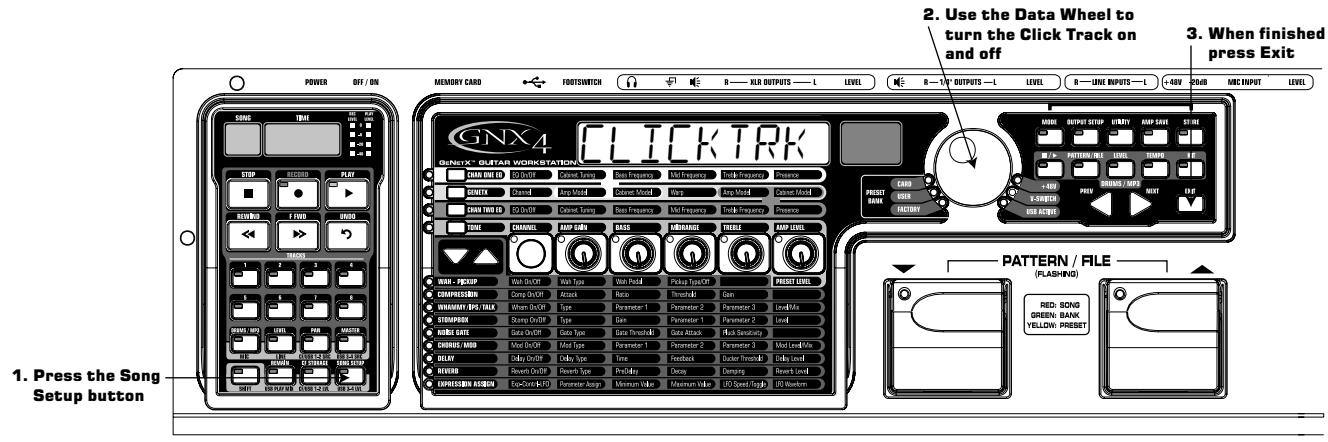


Begin with the recorder stopped.

1. Press the **SONG SETUP** button until the GNX4's main display shows the currently selected drum kit being used by the drum machine.
2. Use the **DATA WHEEL** to select your desired drum kit.
3. When finished, press **EXIT**.

Click Track

The Click Track keeps time when the recorder is recording. When Click Track is enabled, a metronome plays at the selected song's tempo while recording. To setup the Click Track, follow these steps:

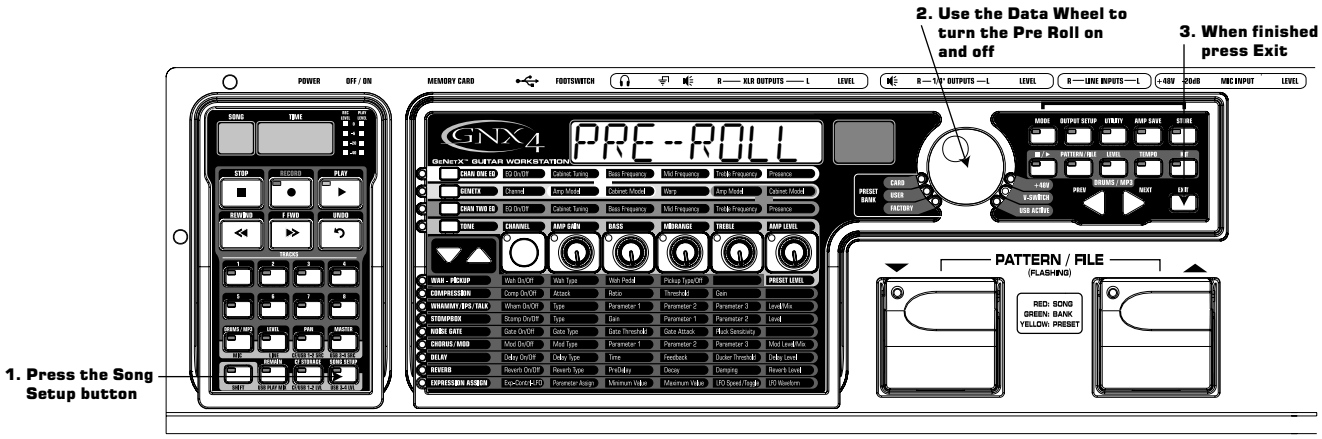


Begin with the recorder stopped.

1. Press the **SONG SETUP** button until the GNX4's main display reads CLICKTRK.
2. Use the **DATA WHEEL** to turn Click Track on and off.
3. When finished, press **EXIT**.

Pre-Roll

Pre-Roll is an amount of time you can have the recorder count off before it actually begins recording. Pre-Roll can also be used as a count in cue, indicating when the very beginning of the song starts. The GNX4's Pre-Roll has five settings Off, 3, 4, 8, or 16 counts. To setup the Pre-Roll function, follow these steps:

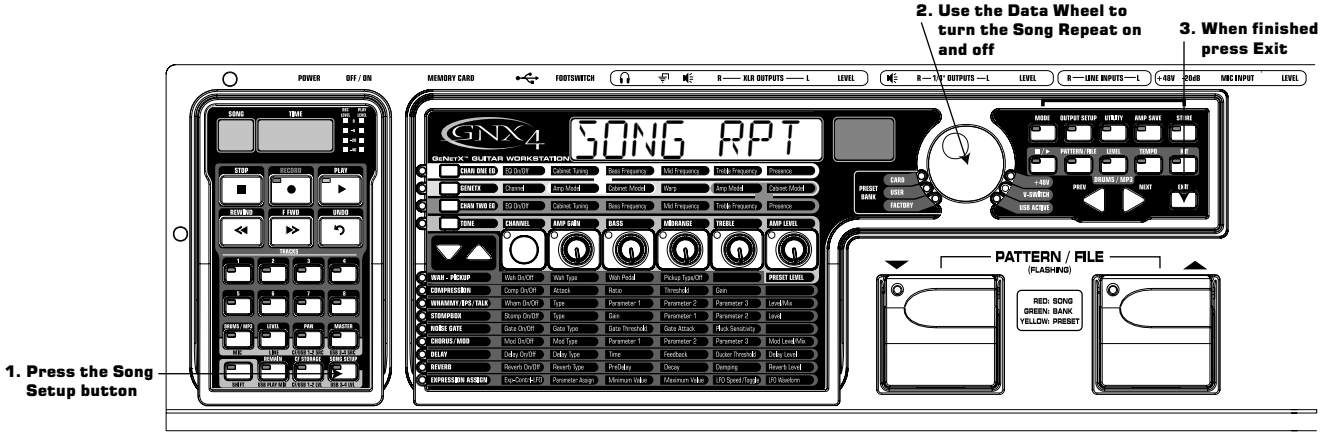


Begin with the recorder stopped.

1. Press the **SONG SETUP** button until the GNX4's main display reads PRE-ROLL.
2. Use the **DATA WHEEL** to select the amount of Pre Roll or turn it off. You can select from 3, 4, 8, or 16 counts before recording begins.
3. When finished, press **EXIT**.

Song Repeat

To rehearse with the song you just created, Song Repeat continuously plays the song without having to press the **REWIND** and **PLAY** buttons to re-start it. Each time the song ends during playback, it automatically restarts from the beginning when this feature is turned on. To enable Song Repeat, follow these steps:



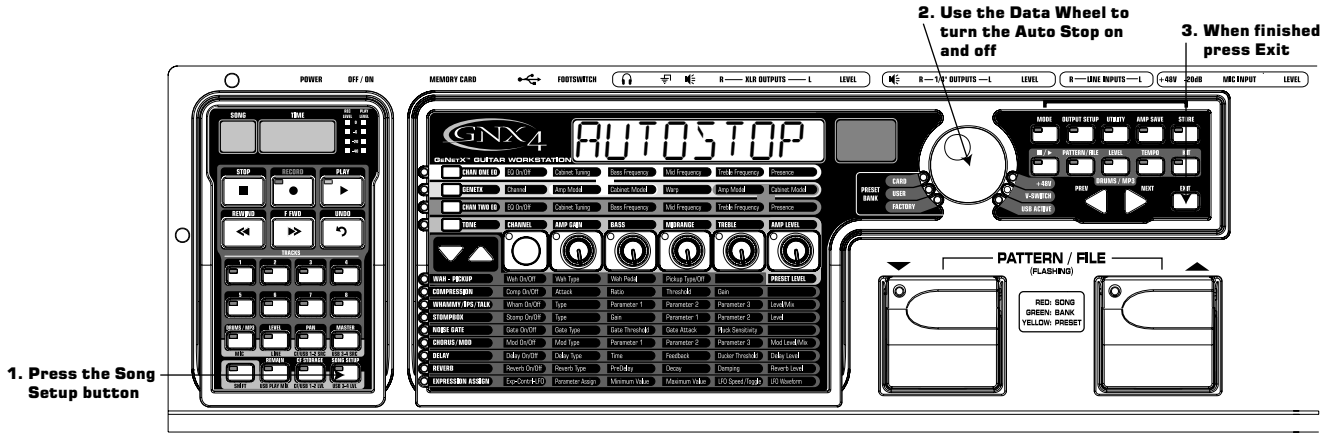
Begin with the recorder stopped.

1. Press the **SONG SETUP** button until the GNX4's main display reads SONG RPT.
2. Use the **DATA WHEEL** to turn Song Repeat on and off.
3. When finished, press **EXIT**.

The GNX4's 8-Track Recorder

Auto Stop

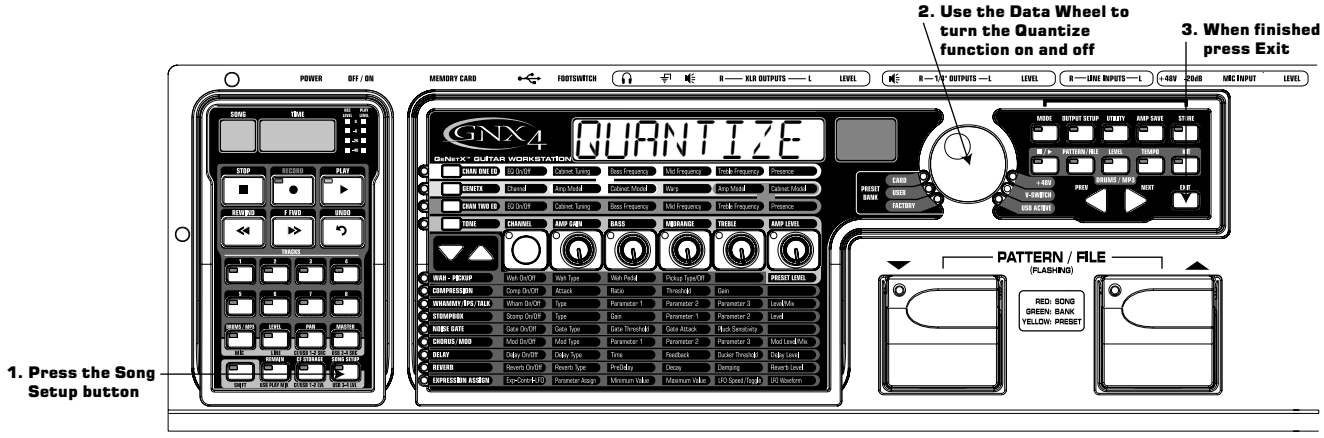
When trying to conserve recording memory, or to help automate the recording process, you can use the recorder's Auto Stop feature. Begin by recording your longest track first in a new song. Then enable the Auto Stop feature in the recorder Setup menu. The recorder will now automatically stop at the end of playback of the longest recorded track while recording new tracks. To enable the Auto Stop follow these steps:



1. Press the **SONG SETUP** button until the GNX4's main display reads AUTOSTOP.
2. Use the **DATA WHEEL** to turn the Auto Stop feature on and off.
3. When finished, press **EXIT**.

Quantize

This option is applicable only when the GNX4's recorder is used as a JamMan™ delay looper. The Quantize function creates perfectly timed loops to the nearest eighth note of a given tempo. Therefore, if you set a loop length just a little too long to sync with the recorder click track or the GNX4's drum machine, the quantize function pulls in the actual loop length to make it sync up exactly with the tempo you have selected. More about this is found in the **Using the GNX4's JamMan™ Delay Looper** section on page 87. To setup the Quantize function, follow these steps:



Begin with the recorder stopped.

1. Press the **SONG SETUP** button until the GNX4's main display reads QUANTIZE.
2. Use the **DATA WHEEL** to turn the quantize function on or off.
3. When finished, press **EXIT**.

Format

To quickly erase and format a Compact Flash memory card, the GNX4's setup menu provides a format function. If a Compact Flash memory card is not present in the Compact Flash memory card slot, the format function is not available. To format a Compact Flash memory card, follow these steps:

1. Press the **SONG SETUP** button until the display reads FORMAT?. The recorder's **RECORD** button will begin flashing prompting the user to press it to begin formatting.
2. Press the **RECORD** button. The display reads SURE?, prompting the user that the next press will begin the memory erase procedure. To abort, press **EXIT**.
3. Pressing the **RECORD** button a second time will begin the formatting procedure. The GNX4's main display reads FORMAT during this time and the GNX4's buttons and footswitches are disabled during this procedure.
4. Then GNX4 will display CF BUSY until the formatting process is complete. You can begin recording after the GNX4 returns to the preset screen. **Do not remove your CF card or turn the GNX4's power off while the display reads** CF BUSY **or you may lose files.**

Using Compact Flash Memory Cards

The GNX4 recorder's memory can be increased by using an optional, external Compact Flash memory card. On the back panel is a card slot for adding memory. The GNX4 supports memory cards from 32MB (Megabyte) to 2GB (Gigabyte) in size.

To utilize a Compact Flash memory card in the GNX4, it must be formatted using the FAT16 File format. DigiTech recommends that you format your card in the GNX4 using our internal format routine. Our internal format routine will configure the card as FAT16. You can also format a card on a PC using Windows® 2000 or XP but you MUST select the File System to be FAT (meaning FAT16) instead of FAT32 and enable the Quick Format option. If a card is formatted using FAT32 and installed into the GNX4 you will be prompted to format it (FORMAT?). The GNX4 will also prompt the user to format (FORMAT?) a card that is unrecognizable for any other reason.

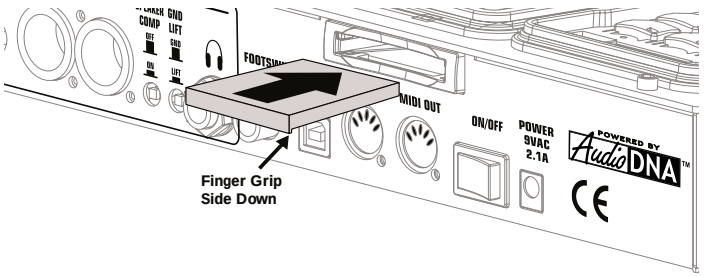
NOTE: The GNX4 is compatible with Type I Compact Flash cards only. It is not compatible with Type II cards or IBM/Hitachi Microdrives™.

The table listed below shows the amount of record time each of the currently available cards will provide:

Card Size	Recording Time
32MB	6 track minutes
64MB	12 track minutes
128MB	24 track minutes
256MB	48 track minutes
512MB	1 hour and 36 track minutes
1GB	3 hour 12 track minutes
2GB	6 hours 24 track minutes

To use an external memory card with the GNX4, follow these steps:

1. Place the card into the **MEMORY CARD** slot with the finger grip facing down fully engaging the card.



The GNX4's 8-Track Recorder

Let's Start Recording!

The GNX4's recorder can record one or two tracks simultaneously. You can operate the GNX4's recorder manually using the Recorder Panel's buttons, or record hands-free using the GNX4's footswitches or a GNXFC (optional).

Selecting an Input Source

To begin recording on the GNX4, it is important to select the source input using the CF/USB 1-2 SRC button. There are multiple input sources to select from which are outlined in the **GNX4 Inputs and Recorder Routing** section on page 64. The source defaults on a new song to Stereo All.

Using the Record and Playback Meters

The GNX4 has two meters located in the upper right corner of the Recorder Panel. The Record meter can be configured to constantly look at any signals coming into the GNX4 (guitar, mic input, line inputs, and drum/MP3 playback) and displays their level in reference to the optimum recording level. Before you begin recording, it is wise to set the levels appropriately to optimize signal to noise. To adjust the source's recording levels, follow these steps:

1. Play your guitar or make sure the source you want to record is playing.
2. It is best that the recording level is consistently lighting the -6dB LED on the meter and only lighting the 0dB LED occasionally.
3. If you need to boost or reduce the level as determined by the Record meter, there are two options:
   a. Increase or decrease the level of the source material.
   b. Use the GNX4's CF/USB level compensation control (see steps 4 and 5).
4. If you cannot adjust the source level, press the **SHIFT** button and then the **CF/USB 1-2 LVL** button.
5. Use the **DATA WHEEL** to increase or decrease the level of audio until the optimum level (as described in step 2) is achieved. The range is from -12 to +24dB.
6. Press the **EXIT** button.

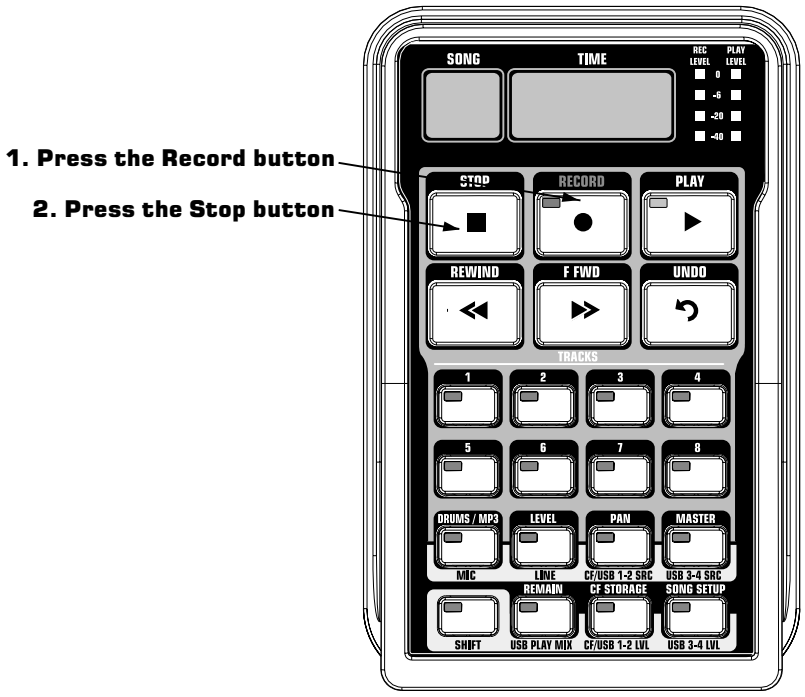
NOTE: Since what you are hear when you record is not representative of the actual record level going to the recorder, using the CF/USB 1-2 LVL control to boost or attenuate levels so as to optimize them for recording will result in an increased or decreased level during playback versus your monitor level. Use the MASTER button and DATA WHEEL to adjust playback levels to the desired level as you record.

For more information on **Optimizing Microphone and Line Input Levels**, see page 13.

Using the GNX4's Recorder Panel for Recording

Recording a Track

When the GNX4 is powered up and you have installed a Compact Flash card, select the Recorder mode (Red) using the **MODE** button found on the Control Panel or by pressing Footswitches 4 and 5 simultaneously. Now the recorder is ready to use. The Song display will read 1, indicating the first song is selected to record. To begin recording a track, follow these steps:



1. Press the **RECORD** button. The **TRACK 1** button (and **TRACK 2** button if recording in stereo) automatically lights red, indicating it is armed for recording, and the recorder begins recording on this track. The TIME display begins counting off the recording time.
2. Once recording is complete, press the **STOP** button. This stops the recording process. The TIME display shows the elapsed time used, and the **TRACK 1** button automatically lights green indicating it is enabled for playback. (The **TRACK 2** button also lights green if recorded in stereo.)

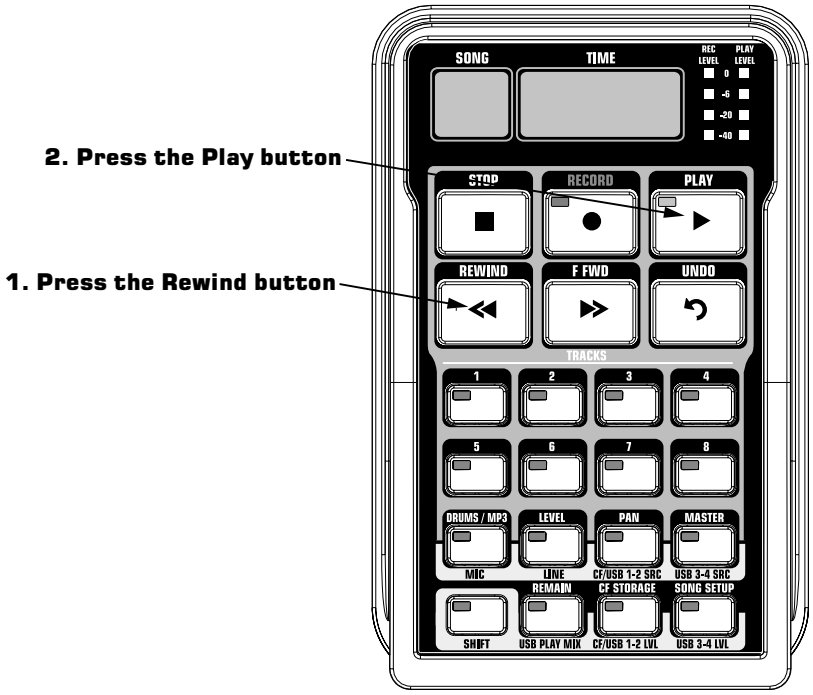
NOTE: Pressing the RECORD button when a track is not armed for recording will force the GNX4's recorder to arm and begin recording on the next empty track of a song or next pair of tracks when stereo sources are selected for recording. You may arm any 2 track(s) for recording prior to pressing RECORD.

ATTENTION: Do not remove your CF card or turn the GNX4's power off during the recording process or you may lose files.

The GNX4's 8-Track Recorder

Playing Back a Recorded Track

After a track is recorded, playing it back is simple. If you are at the end of the track or the song, press the **PLAY** button. The recorder automatically begins playing back the track/song from the very beginning. If you want to start playback at the beginning of a track or song but are someplace other than the end of the song, follow these steps:



Begin with the Recorder stopped.

1. Press the **REWIND** button once to move to the beginning of the song.
2. Press the **PLAY** button. The newly recorded track is automatically armed in PLAY status (the track button is lit green) and the track begins playing back.

ATTENTION: Do not remove your CF card or turn the GNX4's power off while playing back a track or you may lose files.

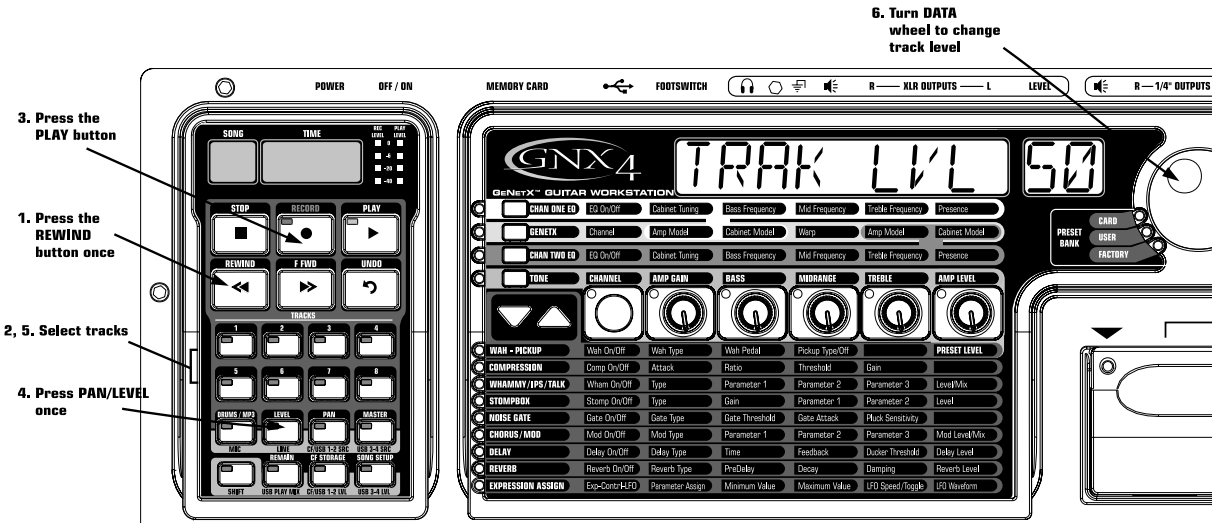
Recording Multiple Tracks

After a track has been recorded, you may want to record other tracks (overdub) that will play along with it. You will want to play the previously recorded track(s) as a monitoring source while recording new tracks. To add a new track to previously recorded tracks do the following:

1. Press the **RECORD** button. The next available track for recording automatically lights red, indicating it is armed to record, and the recorder begins recording on this track from the beginning of the song. The **TIME** display begins counting off the recording time. If Autostop is turned on, the recorder will automatically stop when the longest track playing back is finished. If Autostop is turned off, go to step 2.
2. When recording is complete, press the **STOP** button.

Setting Track Playback Levels and Panning

After a track has been recorded, you can set the pan and playback level for each track. This is done using the **LEVEL** and **PAN** buttons. This feature is most useful if done while the recording is playing back so you can hear the changes as they are being made. To set level and pan controls for each track, follow these steps:



Setting Each Track's Playback Level:

1. Press the **REWIND** button once to return the song to the beginning.
2. Enable any track(s) you want to playback by pressing their **TRACK** buttons until they are lit green.
3. Press the **PLAY** button. Playback of the tracks begins.
4. To adjust the playback level of the tracks, press the **LEVEL** button once.
5. Press any track button that is playing back. The selected **TRACK** button will light green and the other **TRACK** button LEDs turn off. The main display reads TKX LEVL 50 (X = track number).
6. Turn the **DATA WHEEL** to adjust this track's playback level. The range is from 0 to 99.
7. Select other tracks and adjust their playback level by repeating steps 5 and 6.
8. Press the **LEVEL** button to exit.

Setting Each Track's Pan:

1. Press the **PAN** button once. It will light green and the main display will read TKX CNTR 0 (X=track number).
2. Turn the **DATA WHEEL** to the left to pan the track to the left in the stereo field (TKX LEFT). Turn the **DATA WHEEL** to the right to pan the track to the right (TKX RGHT).
3. Select other tracks and adjust their pan position by pressing the track button and repeating step 2.
4. Press the **PAN** button again to exit.

Adjusting the Recorder's Playback Master Level

As more tracks are recorded, the output level will begin to increase. You will notice the **Playback Meter** will reach clipping much easier which will cause distortion in the audio being played back. To compensate for this, the GNX4 recorder has a Master Level to control the overall playback level of the internal recorder. To adjust the Master playback level, follow these steps:

1. Press the **PLAY** button to start playback of the song.
2. Press the **MASTER** button and use the **DATA WHEEL** to reduce or increase the playback level so that the **PLAYBACK** meter level is consistently lighting the -6dB LED on the meter and only lighting the 0dB LED occasionally.

NOTE: As more tracks are recorded, further adjustments to the Master Level may need to be made to prevent clipping.

The GNX4's 8-Track Recorder

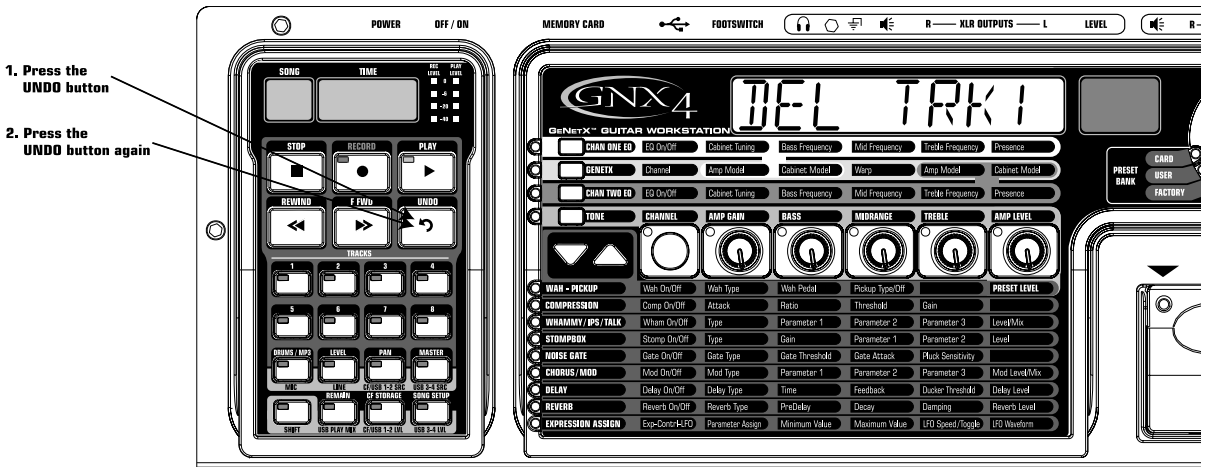
Undoing/Erasing a Track

Every track you record may not be a take you want to keep. The GNX4's recorder features an **UNDO** button, that erases the contents of a track. You can undo a track even while recording is in progress, thus eliminating having to stop and start all the recording procedures again.

WARNING: Deleting a track is permanent and once it is deleted it cannot be retrieved. Please use the UNDO button with caution.

Using Undo While the Recorder is Stopped

If you have stopped the recorder and decided you were unhappy with the last take, you can Undo (delete) the track information. To undo the last track you recorded, follow these steps:



1. Press the **UNDO** button once. The GNX4's main display reads DEL TRKx, indicating the last recorded track will be deleted. If you want to delete a different track, press the track button you want to delete.
2. Press the **UNDO** button again within 3 seconds to delete the track. If the **UNDO** button is not pressed a second time within 3 seconds of the first press, the recorder ignores the undo request and returns to its normal stopped state.

Using Undo While Recording is in Progress

You can Undo a track while recording is in progress. This eliminates having to stop the recorder delete the track, rewinding, and having to start over. To undo the track you are currently recording on, follow these steps:

1. Press the **UNDO** button once. The GNX4's main display reads REREC RD?.
2. Press the **UNDO** button again within 3 seconds to start re-recording. The display reads UNDO then UNDO DONE and the recorder returns to the beginning of the song and resumes recording on the same track. If the **UNDO** button is not pressed again within 3 seconds of the first press, the recorder ignores the undo request and recording continues unaffected.

If you don't want to have the recorder automatically start re-recording when using **UNDO**, press the **STOP** button to stop recording before using the **UNDO** function.

Changing Track Status

Each recorded track can be in 1 of 4 states; playback, record, merge, or off. Tracks with recorded material can be turned on for playback (**TRACK** button is lit green), armed for recording (**TRACK** button is lit red), armed for merging other recorded tracks to it (**TRACK** button is lit yellow) or turned off (button is not lit). If a track does not have material recorded on it, it can only be enabled for recording, merge, or turned off. To change the status of a track, do the following:

1. Press any **TRACK** button repeatedly until it lights green, red, or yellow. If the button lights green, there is recorded material present. If the **RECORD** or **PLAY** button is pressed the material is played back. If the button lights red and the **RECORD** button is pressed, audio will be recorded on this track. If the button lights yellow, it merges tracks armed for playback, including recorded material already present on this track.

Punching In/Punching Out

There may be times you want to replace a track section in the middle of a song. Rather than recording on a new track at the very beginning and wasting recording time with silence, you can "punch in" the phrase you want to record at a certain point on the track. To punch in record, follow these steps:

1. Arm the track that you want to punch in and record on (the **TRACK** button turns red).
2. Press the **PLAY** button. All tracks that are armed for playback and record begin playing, and the **TRACK** button armed for recording begins flashing red.
3. When you reach the point in the playback that you want the recording to begin, press the **RECORD** button. The **TRACK** button armed for recording lights solid red and recording begins on this track at this point.
4. When you are finished recording, press the **RECORD** button again to disable the track armed for recording (the track button flashes red) and continue listening to the playback.

Bouncing/Merging Tracks

Once you have recorded several tracks, you may want to combine them onto a single track or pair of tracks to free up recording memory. This is done using the recorder's Merge function. Merging is essentially the same as bouncing tracks as you would on old analog 4 and 8-track tape recorders, only without any signal degradation. You can merge playback tracks with recorded tracks and retain the recorded material on the tracks you are merging to. This means you don't need empty tracks to merge to if all tracks have recorded material on them.

NOTE: Merging tracks is irreversible to the tracks that are merged to. It is wise to make sure your individual track levels and pans are set prior to merging tracks with recorded material present. Once tracks are merged, the individual track information cannot be adjusted.

To merge recorded tracks, follow these steps:

1. Begin with the recorder stopped.
2. Arm the track(s) you want to merge for playback (**TRACK** buttons lit green).
3. Press the **TRACK** button(s) you want to merge to until they light yellow. Only a maximum of two tracks at a time can be selected to merge to.
4. Press the **RECORD** button. The recorder begins merging the audio from the tracks armed for playback onto the tracks armed for merge. Once merging has begun, it cannot be stopped until playback through the entire song is completed.

The GNX4's 8-Track Recorder

Re-Amping Using the GNX4's Recorder

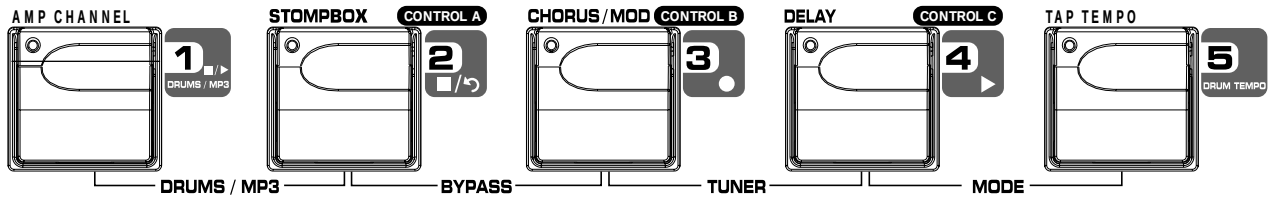
Re-amping is a feature that allows you to record a dry, unprocessed guitar track and then play it back through the GNX4's effects afterward. This allows you to record a part just once and then experiment with different amp/cabinet/effect combinations until the sound fits well in the mix. One great thing about using the GNX4's re-amp capability is that you can record this unprocessed track while still monitoring your performance through the GNX4's processing. This lets you get the feel of hearing the guitar through the amp and effects while tracking, while only recording the dry guitar. To re-amp a guitar track, follow these steps:

1. Begin with the recorder stopped.
2. Press the **SHIFT** button on the Recorder Panel.
3. Press the **CF/USB 1-2 SRC** button on the Recorder Panel.
4. Use the **DATA WHEEL** to select *DRYGUITR* as the source.
5. Press the **EXIT** button.
6. Use the **DATA WHEEL** to select a preset that gives you a good feel for the performance you are about to record.
7. Press the **RECORD** button. A new track will arm itself and you can begin recording your performance.
8. When finished, press the **STOP** button.
9. Press the **SHIFT** button on the Recorder Panel (if it is not already lit).
10. Press the **CF/USB 1-2 SRC** button on the Recorder Panel.
11. Use the **DATA WHEEL** to select *REAMP X* (X = the track number you just recorded to).
12. Press the **PLAY** button.

You will now hear your performance played back through the currently selected preset. Use the **DATA WHEEL** to hear this performance played through different presets. Another re-amping method is to record a guitar using the amp modeling only, without Chorus/Mod, Delay, or Reverb effects by selecting *MONOALL* as the recording source. You can then select a direct amp and cabinet model upon playback and re-amp through the GNX4's effects only.

Hands-Free Recording

The GNX4's footswitches can perform different functions depending on the mode. (See the **Footswitch Functions for Modes** section on page 59 for more information.) When Recorder mode is selected, the **UP/DOWN** footswitches are used to select Songs. The 5 numbered footswitches are used to Play Drum Patterns/MIDI files/MP3s, Stop/Undo, Record, Play, and set Drum Pattern Tempo. Use the **Mode** button located in the Control Panel or press **Footswitches 4** and **5** simultaneously (until they light red) to select Recorder mode. This turns your GNX4's pedalboard into a hands-free remote control for the recorder and tracks are armed automatically for recording and playback.



Using the RECORD Footswitch to Record a Track

To begin recording a track using the footswitches, follow these steps:

1. Press the **RECORD** footswitch. The **TRACK 1** button (and **TRACK 2** button if recording stereo tracks) automatically lights red, indicating it is armed to record, and the recorder begins recording on the track. The **TIME** display begins counting off the recording time.
2. When you are finished recording the track, press the **STOP/UNDO** footswitch. This stops the recording process, and the track is saved. The **TIME** display shows the elapsed time used and the **TRACK 1** button (and **TRACK 2** button if recording stereo tracks) is lit green indicating it is now enabled for playback.

Using the PLAY Footswitch to Play Back a Recorded Track

After a track has been recorded, playing it back is simple. If you are at the end of the track or the song, press the **PLAY** footswitch. The recorder automatically begins playing back the track/song from the very beginning. If you want to start playback at the beginning of a track or song, but are someplace other than the end of the song, follow these steps:

1. Press the **STOP/UNDO** footswitch twice. This will rewind to the beginning of the current song.
2. Press the **PLAY** footswitch. The newly recorded track is automatically armed in PLAY status (track button is lit green) and the track begins playing back.

Using the Footswitches to Record Multiple Tracks

After a track has been recorded, you may want to record other tracks (overdub) that will play along with it. You will want to play the previously recorded track(s) as a monitoring source while recording new tracks. To add a new track to previously recorded tracks do the following:

1. Press the **RECORD** footswitch. The next available track for recording automatically lights red, indicating it is armed to record, and the recorder begins recording on this track from the beginning of the song. The **TIME** display begins counting off the recording time. If Autostop is enabled in the Recorder setup, the recorder will automatically stop when the longest track playing back is finished. If Autostop is turned off, go to step 2.
2. When you are finished recording the track, press the **STOP/UNDO** footswitch.

The GNX4's 8-Track Recorder

Using the UNDO Footswitch to Erase a Track

If you are not happy with a track you just recorded, no problem. You can easily delete, or Undo the last recorded track using the GNX4's footswitches. To Undo a track that was just recorded, follow these steps:

Using Undo While the Recorder is Stopped

1. Press and hold the **STOP/UNDO** footswitch once. The GNX4's main display reads DEL TRKx, indicating the last recorded track will be deleted.
2. Press the **STOP/UNDO** footswitch again within 3 seconds to delete the track. If the **STOP/UNDO** footswitch is not pressed a second time within 3 seconds of the first press, the recorder ignores the undo request and returns to its normal stopped state.

Using Undo While Recording is in Progress

You can Undo a track while recording is in progress. This eliminates having to stop the recorder, rewinding, and having to start over. To undo the track you are currently recording on, follow these steps:

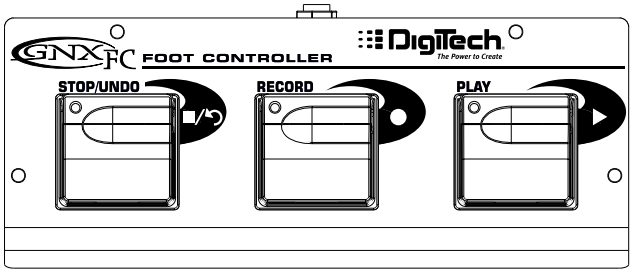
1. Press and hold the **STOP/UNDO** footswitch once. The GNX4's main display reads REREC RD?.
2. Press the **STOP/UNDO** footswitch again within 3 seconds to start re-recording. The display reads UNDO then UNDO DONE and the recorder returns to the beginning of the song and resumes recording on the same track. If the UNDO footswitch is not pressed again within 3 seconds of the first press, the recorder ignores the undo request and recording continues unaffected. If you don't want to have the recorder automatically start re-recording when using UNDO, press the **STOP/UNDO** footswitch to stop recording before using the UNDO function.

Using the Footswitches for Punching In/Punching Out

There may be times you want to replace a track section in the middle of a song. Rather than recording on a new track at the very beginning and wasting recording time with silence, you can "punch in" the phrase you want to record at a certain point on the track. To punch in record, follow these steps:

1. Begin with the Recorder stopped.
2. Arm the track that you want to punch in and record on (the **TRACK** button will light red).
2. Press the **PLAY** footswitch. Tracks that are armed for playback begin playing, and the TRACK button armed for recording flashes red.
3. When you reach the point in the playback that you want the recording to begin, press the **RECORD** footswitch. The **TRACK** button armed for recording, lights solid red and recording begins on the track at this point.
4. When you are finished recording, press the **RECORD** footswitch to continue listening to playback and disable the track armed for recording, or press the **STOP/UNDO** footswitch to stop.

Hands-Free Recording with the GNXFC



The GNX4 is equipped with a footswitch jack that allows you to connect an optional GNXFC for controlling the GNX4's recorder. This 3-button footswitch features functions for **STOP/UNDO**, **RECORD**, and **PLAY**. The GNXFC is also an ideal companion for JamMan™ (see the **Using the GNX4's JamMan™ Delay Looper** section on page 87 for more information) users as it allows you to leave your GNX4 footswitches setup for changing presets or switching amp channels and effects on and off while the GNXFC is used for both recording songs and creating loops.

Using the GNXFC to Record a Track

To begin recording a track using the GNXFC footswitches, follow these steps:

1. Press the **RECORD** footswitch. The **TRACK 1** button will automatically light red, which will arm it to record, and the recorder will begin recording on this track. The **TIME** display will begin counting off the recording time.
2. Once recording is completed, press the **STOP/UNDO** footswitch. This stops the recording process, and saves the track. The **TIME** display will show the elapsed time used and the **TRACK 1** button will be lit green indicating it is now enabled for playback. (The **TRACK 2** button also lights green if recorded in stereo.)

Using the GNXFC to Play Back a Recorded Track

After a track has been recorded, playing it back is simple. If you are at the end of the track or the song, press the **PLAY** footswitch. The recorder automatically begins playing back the track/song from the very beginning. If you want to start playback at the beginning of a track or song but are someplace other than the end of the song, follow these steps:

1. Press the **STOP/UNDO** footswitch twice. This will rewind to the beginning of the current song.
2. Press the **PLAY** footswitch. The newly recorded track is automatically armed in PLAY status (track button is lit green) and the track begins playing back.

Using the GNXFC to Record Multiple Tracks

After a track has been recorded, you may want to record other tracks (overdub) that will play along with it. You will want to play the previously recorded track(s) as a monitoring source while recording new tracks. To add a new track to previously recorded tracks do the following:

1. Press the **RECORD** footswitch. The next available track for recording automatically lights red, indicating it is armed to record, and the recorder begins recording on this track from the beginning of the song. The **TIME** display begins counting off the recording time. If Autostop is enabled in the Recorder setup, the recorder will automatically stop when the longest track playing back is finished. If Autostop is turned off, go to step 2.
2. When you are finished recording the track, press the **STOP/UNDO** footswitch.

The GNX4's 8-Track Recorder

Using the GNXFC to Undo/Erase a Track

If you are not happy with a track you just recorded, no problem. You can easily delete, or Undo the last recorded track using the GNX4's footswitches. To Undo a track that was just recorded, follow these steps:

Using Undo While the Recorder is Stopped

1. Press and hold the **STOP/UNDO** footswitch once. The GNX4's main display reads DEL TRKx, indicating the last recorded track will be deleted.
2. Press the **STOP/UNDO** footswitch again within 3 seconds to delete the track. If the **STOP/UNDO** footswitch is not pressed a second time within 3 seconds of the first press, the recorder ignores the undo request and returns to its normal stopped state.

Using Undo While Recording is in Progress

You can Undo a track while recording is in progress. This eliminates having to stop the recorder, rewinding, and having to start over. To undo the track you are currently recording on, follow these steps:

1. Press and hold the **STOP/UNDO** footswitch once. The GNX4's main display reads RERECRD?.
2. Press the **STOP/UNDO** footswitch again within 3 seconds to start re-recording. The display reads UNDO then UNDODONE and the recorder returns to the beginning of the song and resumes recording on the same track. If the UNDO footswitch is not pressed again within 3 seconds of the first press, the recorder ignores the undo request and recording continues unaffected. If you don't want to have the recorder automatically start re-recording when using UNDO, press the **STOP/UNDO** footswitch to stop recording before using the UNDO function.

Using the GNXFC for Punching In/Punching Out

There may be times you will want to record in the middle of a song rather than from the very beginning. Rather than recording on a new track at the very beginning and wasting recording time with silence, you will want to "punch in" the phrase you want to record at a certain point on the track and then punch out. To punch in record do the following:

1. Arm the track you want to punch in record on (**TRACK** button will light red).
2. Press the **PLAY** footswitch. Any tracks that are armed for playback will begin playing and the **TRACK** button armed for recording will flash red.
3. When you reach the point in the playback that you want the recording to begin, press the **RECORD** footswitch. The **TRACK** button armed for recording will now light solid red and recording will now begin on this track at this point.
4. When you are finished recording, press the **PLAY** footswitch to continue listening to playback and disable the track armed for recording, or press the **STOP/UNDO** footswitch to stop.

Using the GNX4's JamMan™ Delay Looper

The GNX4's recorder also doubles as a JamMan Delay Looper. The JamMan is used to create a recording loop that you can playback with. The JamMan functions are accessed using the GNX4's footswitches while they are in **Recorder** mode. The only difference between regular multi-track recording and looping is the way you use the footswitches after recording your first track.

When recording multiple tracks for a song, you would normally record your first track, stop, rewind, and then set up for recording your overdub track. The GNX4's footswitches provide hands-free operation for these functions. But when you want to create loops on the fly that you can layer, you want the transition from the first take to the second and so on to be seamless.

To use the JamMan feature of the GNX4 you must first have the footswitches in Recorder mode. To do this, press **Footswitches 4** and **5** simultaneously until the **DOWN/UP** footswitches are lit red. If you have songs already in memory, you must select a new Song to record your loop to. To select a new song, press the **UP** footswitch. A new song is defined as a song that has no previously recorded material present on any of its tracks.

You are now ready to begin recording a loop.

Recording a Loop

Recording a loop is no different than doing multi-track recordings. Here are the steps for creating a loop:

1. Press the **RECORD** footswitch. The TRACK 1 button automatically lights red, indicating it is armed to record, and the recorder begins recording on this track. The TIME display begins counting off the recording time.
2. Just as you reach the end of your take, press the **PLAY** footswitch. This sets the loop length and places TRACK 1 into playback. You can listen to what you just recorded, and the **TRACK 2** button will flash red indicating it is now armed and ready to begin recording on.

NOTE: If the RECORD footswitch is pressed instead of the PLAY footswitch after recording the first pass, recording is disabled and the loop's length is set. The TRACK 1 button is still armed for recording (flashing red) but is now playing back what you just recorded. You can now add material to track 1 rather than record on a new track by pressing the RECORD footswitch to record on this track again. The new material is added to existing recorded material. Until the PLAY footswitch is pressed, only track 1 is available to record on.

The GNX4's 8-Track Recorder

Recording Layered Overdubs to your Loop

Adding overdubbed layers to your first loop is easy. After recording your first track and pressing the **PLAY** footswitch, TRACK 2 is already armed for recording. To add overdubs to the current loop, follow these steps:

1. Press the **RECORD** footswitch. The **TRACK 2** button lights solid red and begins recording on this track.
2. When finished, you can press **PLAY** to stage the next track for recording or press **RECORD** to disable recording and remain on the same track.

If at anytime you are not satisfied with your current take while recording overdubs with your original loop, you can undo it by pressing the **STOP/UNDO** footswitch. This erases the contents of a track and lets you proceed with trying another take without having to stop. To use the UNDO function while recording a loop, follow these steps:

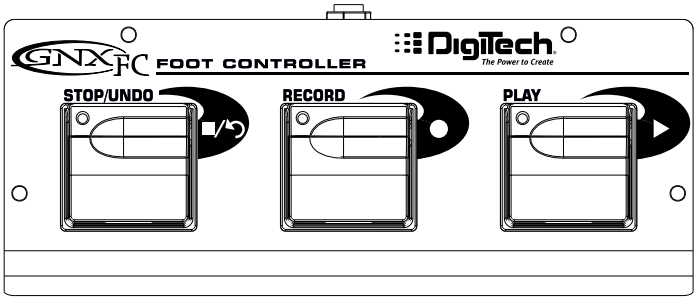
1. Press the **STOP/UNDO** footswitch once. The GNX4's main display reads *RERECRD?*.
2. Press the **STOP/UNDO** footswitch again within 3 seconds to start re-recording. The display reads *UNDO* then *UNDODONE* and the recorder returns to the beginning of the song and resumes recording on the same track. If the **STOP/UNDO** footswitch is not pressed again within 3 seconds of the first press, the recorder ignores the undo request and recording continues unaffected.

Using Quantize for Seamless Loops

When recording loops, it is important that you set the loop length exactly so that your loop is seamless from finish to start. Sometimes our timing may not be perfect when pressing the PLAY footswitch to set the length. The GNX4 provides a Quantize feature that corrects these timing problems to the nearest eighth note. Quantize looks at the point where you pressed the PLAY footswitch in relation to the tempo you are using for your loop. Lets say you were recording a four second loop and you pressed the PLAY footswitch just a little late. No problem, with Quantize enabled, the looper will automatically cut off the extra recording and give you a perfect four second loop. To enable the Quantize feature, follow these steps:

1. Begin with the recorder stopped by pressing the **STOP/UNDO** footswitch.
2. Press the **SONG SETUP** button and use the **PREV/NEXT** buttons until the GNX4's main display reads: *QUANTIZE*.
3. Use the **DATA WHEEL** to turn the Quantize feature on and off. Quantize only affects delay loops and does not affect songs.
4. Press the **EXIT** button.

Using the GNXFC for Looping



Recording a Loop

To begin recording a loop is no different than when you are doing multi-track recording. You must begin with a new song in order to create a loop. Press the GNX4's **UP Footswitch** (the GNX4's footswitches must be in **Recorder** mode first) or the **FFWD** button on the Recorder Panel to select a new song that has not been recorded on. Here are the steps for creating a loop:

1. Press the **RECORD** footswitch. The **TRACK 1** button will automatically light red, which will arm it to record, and the recorder will begin recording on this track. The **TIME** display will begin counting off the recording time.
2. Just as you reach the end of your take, press the **PLAY** footswitch. This will set the loop length and place TRACK 1 into playback. You will now begin hearing what you just recorded. You will now see that the **TRACK 2** button is flashing red meaning it is now armed and ready to begin recording on.

You have just successfully recorded you first loop and are now ready to start layering overdubs.

NOTE: If the RECORD footswitch is pressed instead of the PLAY footswitch after recording the first pass, recording is disabled and the loop's length will be set. The TRACK 1 button will now be armed for record (flashing red). You will begin hearing playback of track 1 at this time. If you decide you want to add material to track 1 rather than recording on a new track, press the RECORD footswitch again to enable recording on this track again. The new material will now be added to existing recorded material. Until the PLAY footswitch is pressed, only track 1 will be available to record on.

Recording Layered Overdubs to Your Loop

To begin adding overdubbed layers to your first loop is easy. Since TRACK 2 is already armed for recording, press the **RECORD** footswitch when you are ready to begin recording your overdub.

1. Press the **RECORD** footswitch. The **TRACK 2** button will light solid red and will begin recording on this track.
2. When finished, you can press **PLAY** to arm the next track for recording or just press **RECORD** to begin adding your next overdub.

If at anytime you are not satisfied with your current take, you can undo it by pressing and holding the **STOP/UNDO** footswitch. This will erase the last recorded track and let you proceed with trying another take without having to stop. (See **Using Undo While Recording is in Progress** on page 86.)

The GNX4's 8-Track Recorder

Drum Machine Recorder Operation

The Drum Machine can be assigned to play a particular pattern, MIDI file, or an MP3 in any song when the **DRUMS/MP3** button on the Recorder panel is enabled. This button will light green if an internal drum pattern or MIDI file has been selected for playback, or it will light yellow if an MP3 file has been selected. When using externally created MIDI files or MP3s for use as playback files, the following rules must be followed in order for these files to work:

- MP3s and MIDI files must be located in their specific folders within the GNX4 folder on the Compact Flash card. This will ensure that all .mid and .mp3 files can be located and appended to the end of the factory PATTERN/FILE list. (See page 101 for information regarding **Compact Flash File Structure**.)
- MP3s must be encoded as stereo, 64kb (or greater), 44.1kHz files.
- MIDI files and internal drum patterns cannot be played while an MP3 is being played and vice-versa.
- MIDI files must be Type 0 (Zero) format in order to be recognized by the GNX4.
- Externally created MIDI files can play the internal drum machine if they were recorded using MIDI Channel 10.

Setting Up Playback Files with a Song

To select a drum pattern, a MIDI file, or MP3 file to be played back when the recorder's **PLAY** button is pressed, follow these steps:

1. Select a new song using the **FFWD** or **REWIND** buttons, or using the **UP/DOWN** footswitches when they are in recorder footswitch mode.
2. Press the **DRUMS/MP3** [play/stop] button in the Control Panel. The drum machine will begin playing.
3. Press the PATTERN button and use the **DATA WHEEL** to select which internal drum pattern, MIDI file, or MP3 file from the list that you want to use with the song.
4. Press the **LEVEL**, **TEMPO**, and **KIT** buttons and use the **DATA WHEEL** to set these functions as you like. Tempo and Kit are unavailable when an MP3 is selected.
5. Press the **DRUMS/MP3** [play/stop] button in the Control Panel to stop the drum machine.
6. Press the **DRUMS/MP3** button in Recorder Panel until it lights green (drum pattern or MIDI file is selected) or yellow (MP3 file is selected).

These settings will be automatically saved as part of the song setup for this song once you begin recording. If you have an existing song in which you want to change the playback file settings, you need to manually edit these settings in the SONG SETUP menu as follows:

1. Press the **SONG SETUP** button once. The currently selected pattern being used by the GNX4's drum machine will be displayed (New song only). Existing songs may have a different file displayed.
2. Use the **DATA WHEEL** to select a new pattern, MIDI file, or MP3 you want associated with the song.
3. Press the **NEXT** to access the other drum machine menus (level, tempo, kit) and use the **DATA WHEEL** to change these settings. Tempo and Kit are unavailable if any MP3 has been selected.
4. Press the **EXIT** button.

Once these settings are saved with a song, they will override any the settings changed using the Control Panel Drum machine button once the song begins playing

Recording Drums

If you want to record the actual drum machine audio rather than just have it sync to recorded tracks, follow these steps:

1. Press the **SHIFT** button located on the Recorder Panel.
2. Press the **CF/USB 1-2 SRC** or **USB 3-4** button also located on the Recorder Panel.

3. Select one of the following recording input sources: STEROALL, MONOALL, DRUMS ST, or DRUMS MN.
4. Press the **EXIT** button.
5. Press the **DRUMS/MP3** button on the Recorder Panel until it lights red.

When recording begins using either the GNX4's recorder or while recording to the computer, the drum machine audio will be captured on the recorded tracks.

MIDI and Recording

The GNX4 features MIDI In and Out jacks which serve several purposes:

1. MIDI In can be used for remote control of the GNX4 from external MIDI devices such as MIDI sequencers and MIDI controller pedals (GNX4 receives program changes, CC parameter control).
2. MIDI In can be used for receiving Sysex preset and bulk dumps into the GNX4
3. The GNX4's Drum Machine responds to MIDI note events received on MIDI Channel 10.
4. MIDI In can be used as your MIDI interface to the computer allowing recording of MIDI events to Pro Tracks Plus™ or other MIDI recording software applications via USB.

NOTE: There is no recording of MIDI to the Compact Flash card.

5. MIDI Out can be used for Sysex preset and bulk dumps to another GNX4 or a MIDI data recording device.
6. MIDI Out can be used as the MIDI out of your computer recording and sequencer application for controlling external MIDI devices such as keyboards or sound modules.

Whenever a MIDI device (sequencer, keyboard, etc..) is plugged into the GNX4's MIDI In and is transmitting MIDI data, this data is automatically being sent to the computer via the GNX4's USB port. Any sequencer or recording application that records MIDI data can record these messages. See the application's manual or help files for more information on recording MIDI.

Working with Songs and Loops

A Song and a Loop are a group of recorded tracks. You must have a Compact Flash memory card installed in the GNX4 to work with songs and loops using the GNX4's recorder.

Selecting Songs and Loops

To select songs, follow these steps:

1. Press the **STOP** button (if the recorder isn't already stopped).
2. Use the **FFWD** or **REWIND** buttons to select the next or previous song. The GNX4's main display shows READING and the number in the SONG display changes as the new song is selected. The TIME display shows the selected song's length.

NOTE: You can also use the DOWN and UP Footswitches to select songs when Recorder mode is active.

Deleting Songs and Loops

To delete songs from the Compact Flash card, follow these steps:

1. Select the song you want to delete by quickly pressing the **FFWD** or **REWIND** button until the song number you wish to delete appears in the Song display.
2. Press and hold the **UNDO** button until the GNX4's main display reads DEL SONG.
3. Press the **UNDO** button again within 3 seconds to delete the song. The display reads DELETING and returns to the preset screen when deletion is complete. If the **UNDO** button is not pressed again within 3 seconds of the first press, the recorder ignores the undo request and recording continues unaffected.

Computer Recording via USB

USB Recording Introduction

The GNX4's USB connection provides 4 channels of audio streaming into the computer and 2 channels of playback from the computer simultaneously. Recording has never been easier thanks to the hands-free tracking environment that the GNX4 and the Pro Tracks Plus™ software provide. The GNX4's footswitches and Pro Tracks Plus software work seamlessly together to automatically arm, record, play, and delete tracks on the fly without ever having to take your hands off the guitar. Multiple recording configurations can be selected to best optimize your recording needs. For more information please refer to the **Audio Routing for Recording** section starting on page 64.

Installing the GNX4's Software Suite

The GNX4 USB drivers must first be installed before using either the X-Edit Editor/Librarian or Pro Tracks Plus recording software. These drivers are found on the X-Edit Software CD that came packaged with the GNX4. Please review the Pro Tracks Plus documentation to ensure your computer system meets the necessary requirements prior to installation. Once installed and configured, the GNX4 can then control Pro Tracks Plus and its recording functions.

ATTENTION: PLEASE READ THE SOFTWARE INSTALLATION GUIDE BEFORE CONTINUING!

Connecting the GNX4 to the Computer

The GNX4 comes equipped with a USB cable that is to be connected to your computer whenever your will be recording or using the X-Edit Editor/Librarian. We recommend that you only use the USB cable that is shipped with the GNX4 since it has been tested and approved for this specific use. Before connecting the GNX4 to your computer, please read the "**Software Installation Guide**".

To connect the GNX4 to the computer, follow these steps:

1. Begin with the power turned off on the GNX4.
2. Plug the small end of the USB cable in to the USB jack on the back of the GNX4.
3. Plug the large flat end of the USB cable into an available USB port on your computer.
4. Turn on the power to the GNX4.

NOTE: DigiTech recommends that you do not use the GNX4 as your default sound playback device. This is configured in Windows in the Control Panel under the Sounds and Audio Devices Properties. Windows Audio Samples are generally recorded at full scale level and if played back through the GNX4 may be very loud in comparison with the configuration of audio level in the GNX4.

Using Pro Tracks Plus™

When Pro Tracks Plus is first launched after installation, you will have to configure the MIDI device and Audio settings to recognize the GNX4 as the hardware you want to use. These procedures must be followed to ensure you will be able to record audio through all of the GNX4's inputs and to enable the hands-free recording capabilities the GNX4 offers.

NOTE: Read the Software Installation sheet that came packaged with the GNX4 for instructions on installing USB drivers before connecting the GNX4 to the USB port on your PC and using Pro Tracks Plus.

Installing Pro Tracks Plus Software

Pro Tracks Plus software must be installed on your computer in order to use the recording capabilities of the GNX4. To install Pro Tracks Plus, please consult the installation instructions provided with the Pro Tracks Plus installation CD.

Setting Up the GNX4 MIDI Device

The GNX4 uses MIDI commands to communicate with Pro Tracks Plus. These commands are used to determine which USB 1-2 Source and USB 3-4 Source settings have been selected so that Pro Tracks Plus can function properly when using the GNX4's hands-free recording features. To configure Pro Tracks Plus' MIDI settings for use with the GNX4 follow the steps outlined below:

1. Start Pro Tracks Plus application on your computer.
2. If the **Tip of the Day** window appears, click the **Close** button.
3. If no previous MIDI outputs have been selected, the **No MIDI Outputs Selected** window will appear. Click the **Choose MIDI Outputs Now** button. The **MIDI Devices** window will open.
4. Under both Input and Output Selections, choose **GNX4 USB MIDI**. Do not select DigiTech USB X-Edit or any other available selections. Click the **Move Selected Devices to Top** button.
5. Click the **OK** button and the window will close.
6. If the **Quick Start** window appears, click the **Close** button.

Setting up the GNX4 for Hands-Free Recording

1. From the Pro Tracks Plus menu bar, select **Options>Control Surfaces**. The **Control Surfaces** window will appear.
2. Click the **+** button to add a new control surface. The **Control Surface Settings** window will open.
3. In the **Control Surface** pull-down menu, select **DigiTech GNX**. Verify that the Input and Output port settings still have **GNX4 USB MIDI** selected. If they do not, do this now.
4. Click the **OK** button. **DigiTech GNX** should now be displayed as the **Connected Surface** in the **Control Surfaces Window**.
6. Click the **Close** button.
7. Pro Tracks Plus can now respond to the GNX4 for automated recording functions. See the **Hands-Free Default** section on page 105 for more information on using Hands-Free USB and CF recording information.

Computer Recording via USB

Setting up Pro Tracks Plus™ for GNX4 Audio

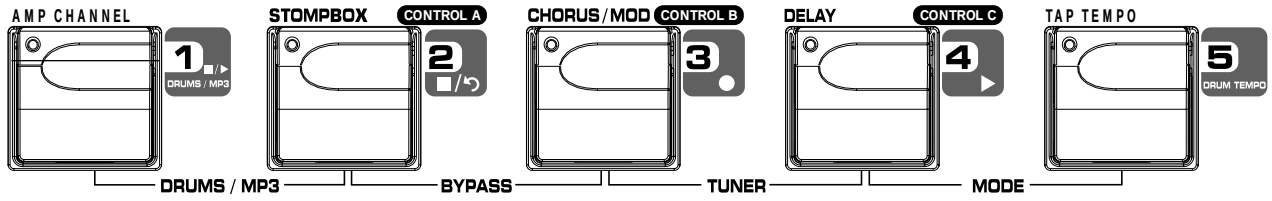
1. From the Pro Tracks Plus menu bar, select **Options>Audio**. The **Audio Options** window will appear. Click the **Drivers** tab.
2. Under the **Input Drivers** settings, select **DigiTech USB 1-2 In/Out** and **DigiTech USB 3-4 In Only** and deselect all other options.
3. Under the **Output Drivers** settings, select **DigiTech USB 1-2 In/Out** and deselect all other options.
4. Click the **OK** button.
5. Click the **OK** button when the window stating changes will be saved upon re-start appears.
6. Close the Pro Tracks Plus application. When you are prompted to save changed, click **No**.
7. Re-start the Pro Tracks Plus application again.
8. Close the **Tip of the Day** and **Quick Start** windows if they appear.
9. From the Pro Tracks Plus menu bar, select **Options>Audio**.
10. Verify that the Playback and Record Timing Master settings have **DigiTech USB 1-2 In/Out** selected. If not, select these now.
11. Click the **Wave Profiler** button at the bottom.
12. Click the **Yes** button to continue performing the tests.
13. When the profiling operation is successfully completed, click the **OK** button.
14. Click the **OK** button to close the **Audio Options** window if it is still open.

You are now ready to use the GNX4 with Pro Tracks Plus recording software.

CAUTION: Do not disconnect power or disconnect the USB cable from the GNX4 or the computer while the Pro Tracks Plus software is running. Doing so can result in unpredictable behavior from your computer's operating system.

Using the GNX4's Footswitches for Hands-Free Computer Recording Functions

The GNX4's footswitches are capable of controlling the Pro Tracks Plus™ recording software, creating a hands-free recording interface. To do this, the GNX4 must be connected to the computer via the included USB cable and the Pro Tracks Plus application must be installed and open.



Recording a Track or Tracks

To begin recording a track using the footswitches, follow these steps:

1. Start the Pro Tracks Plus application.
2. From the Pro Tracks Plus menu bar, select **File>New**. The **New Project File** window will appear.
3. From the **New Project File** window, select **Normal - Hands-Free Session**.
4. Put the GNX4 into Recorder mode by pressing the **MODE** button located on the Control Panel or by pressing **FOOTSWITCHES 4** and **5** simultaneously until the display flashes *RECORDER*.
5. Press the **SHIFT** and **CF/USB 1-2 SRC** buttons, then use the **DATA WHEEL** to select the sources you'd like to record. (Additional sources can be selected by pressing the **USB 3-4 SRC** button and using the **DATA WHEEL**.)
6. Press the **RECORD** footswitch. The GNX4's display reads *RECORD*. A track or tracks are automatically inserted in the current session of the Pro Tracks Plus software and recording on these tracks begins.
7. To stop recording, press the **STOP/UNDO** footswitch. The GNX4's display reads *STOP* and Pro Tracks Plus stops recording. The wave data for the track(s) can now be viewed on your computer monitor.

Playing Back a Recorded Track

After a track or tracks have been recorded, playing them back is easy. If you want to start playback at the beginning of a track or song but are someplace other than the end of the song, follow these steps:

1. Press the **STOP/UNDO** footswitch once. The GNX4 display will read *REWIND* Pro Tracks Plus will rewind to the beginning of the current song.
2. Press the **PLAY** footswitch. The recorded track(s) will begin playing back.

Recording Multiple Tracks

After tracks have been recorded, you may want to record other tracks that play along with them. To record a new track or tracks with previously recorded tracks, follow these steps:

1. Press the **SHIFT** and **CF/USB 1-2 SRC** buttons, then use the **DATA WHEEL** to select the sources you'd like to record. (Additional sources can be selected by pressing the **USB 3-4 SRC** button and using the **DATA WHEEL**.)
2. Press the **STOP/UNDO** footswitch twice. This will rewind to the beginning of the current song.
3. Press the **RECORD** footswitch. The GNX4's display reads *RECORD*. A track or tracks are automatically inserted in the current session of the Pro Tracks Plus software and recording on these tracks begins.
4. To stop recording, press the **STOP/UNDO** footswitch.

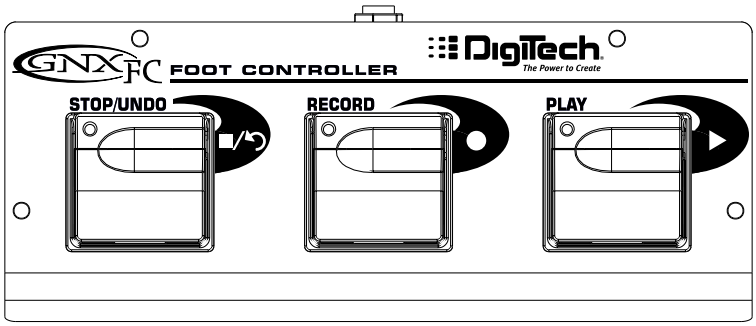
Computer Recording via USB

Using the UNDO Footswitch to Erase a Track

You can undo the last take or previous tracks using the GNX4's footswitches. To undo tracks, follow these steps:

1. Press and hold the **STOP/UNDO** footswitch. The GNX4's display reads *UNDO*, indicating the last recorded track(s) are being deleted.

Using the GNXFC for Hands-Free Computer Recording Functions



The GNX4 is equipped with a footswitch jack that lets you connect an optional GNXFC for controlling the GNX4's recorder. This 3-button footswitch features functions for **STOP/UNDO**, **RECORD**, and **PLAY**. The GNXFC is an ideal companion for recording as it lets you leave your GNX4 footswitches setup for changing presets and switching amp channels while the GNXFC is used specifically for controlling the Pro Tracks Plus recording software. Use only a TRS stereo 1/4" cable when connecting the GNXFC to the GNX4.

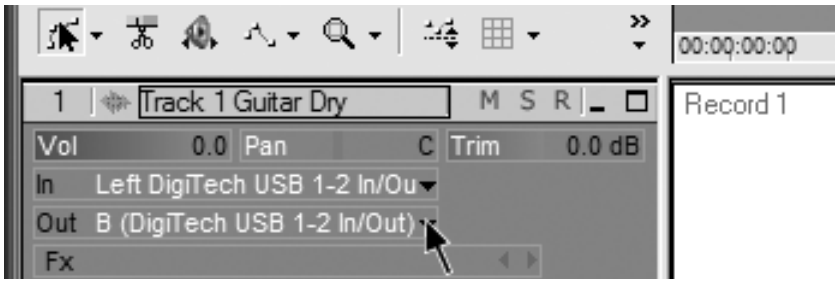
The GNXFC functions are exactly the same as the GNX4 footswitches when it is in Recording mode. Refer to the previous section **Using the GNX4's Footswitches for Hands-free Computer Recording** for operating instructions.

Re-Amping a Guitar Track

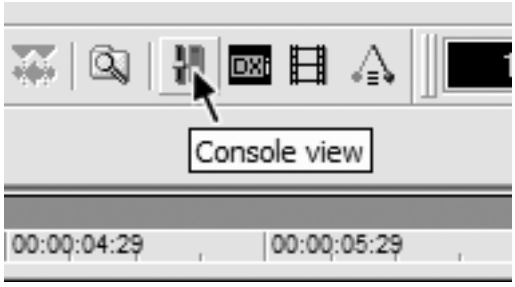
Using one of the Dry Guitar configurations for recording gives you the opportunity of playing a dry take back into the GNX4 for re-processing. The advantages of having this feature are you can experiment playing the dry guitar take back through different amp models, effects, or entirely new presets once you have your other tracks recorded. This helps when trying to fit a guitar sound into a mix after the song is assembled rather than relying on tricky EQ settings that can tarnish the tone you originally recorded.

To re-amp a track back through the GNX4, follow these steps:

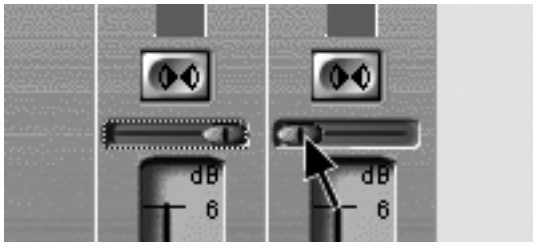
1. Put the GNX4 into Recorder Mode by pressing the **MODE** button located on the Control Panel or by pressing **FOOTSWITCHES 4** and **5** simultaneously until the display flashes *RECORDER*.
2. From the Pro Tracks Plus menu bar, select **File>New**. The **New Project File** window will open.
3. Select the **Normal-Hands Free Session** project template.
4. Press the **SHIFT** and **CF/USB 1-2 SRC** buttons, then use the **DATA WHEEL** to select *DRYGUITR*. Then press the **USB 3-4 SRC** button and use the **DATA WHEEL** to select *USB OFF*.
5. Press the **RECORD** footswitch. The GNX4's display reads *RECORD*. A track is automatically inserted in the current session of the Pro Tracks Plus software and recording on this track begins.
6. To stop recording, press the **STOP/UNDO** footswitch. The GNX4's display reads *STOP* and recording will stop. Press Stop again to rewind to the beginning of the track.
7. In the **Out** box of the track you just recorded, select **B(Digitech USB 1-2 In/Out)**.



9. In the tool bar press the **Console View** button to see the mixing console.



10. Pan the **B - Mains Output** hard left and the **A - Mains Output** hard right.



Computer Recording via USB

11. Press the **SHIFT** and **CF/USB 1-2 SRC** buttons, then use the **DATA WHEEL** to select *REAMPUSB*. This configures the recording software to playback audio through the GNX4's effects processing.
12. Press the **PLAY** footswitch then put the GNX4 into to Preset Mode by pressing the **MODE** button located on the Control Panel or by pressing **FOOTSWITCHES 4** and **5** simultaneously until the display flashes *PRESET*. You can now audition presets until you find one you like. Once you have done so, return to Recorder Mode.
13. Press the **STOP/UNDO** footswitch twice to rewind to the beginning of the track.
14. Press the **RECORD** footswitch and the recorder will now insert and record a stereo track of processed guitar.
15. To stop recording, press the **STOP/UNDO** footswitch.

GNX4 Drums and MIDI

The GNX4's Drum machine samples are mapped so that they may be triggered by MIDI notes played from Pro Tracks Plus. Each of the drum patterns programmed in the GNX4 has been programmed as a MIDI track in the Pro Tracks Plus project file library.

For a complete list of the **General MIDI Drum Samples** see page 114.

Recording the GNX4 Drums as Audio

The GNX4's drum machine can be recorded using Pro Tracks Plus. Each of the GNX4 drum patterns have been saved as pattern template files which can be selected from the Pro Tracks Plus project file library for playback control of the GNX4's drum samples. To record the GNX4 drums using the pattern templates provided in Pro Tracks Plus, follow these steps:

1. From the Pro Tracks Plus menu bar, select **File>New**. The **New Project File** window will appear.
2. Select one of the DigiTech GNX4 drum templates and click the **OK** button. This will open up a new recording session.
3. On the GNX4, use the either the **CF/USB 1-2 Source** or **USB 3-4 Source** knobs to select *DRUMS STEREO* or *DRUMS MONO*.
4. Press the **RECORD** footswitch. The GNX4's display reads *RECORD*. A new track is automatically inserted in the current session of the Pro Tracks Plus software and recording on these tracks begins.
5. To stop recording, press the **STOP/UNDO** footswitch.

Recording the GNX4 Drums as MIDI

You can use MIDI drum files for playing the GNX4 drum samples as long as the events are mapped to the MIDI notes shown above. The drum samples of the GNX4 only respond to MIDI messages transmitted on MIDI channel 10, which is the default channel for General MIDI drums.

For a complete list of the **General MIDI Drum Samples** see page 114.

USB Playback Mix

The **DATA WHEEL** is an easy way to balance the GNX4's processing with playback from the Pro Tracks Plus software using a single control. This function is only available when the GNX4 is connected to the computer via USB and Pro Tracks Plus is up and running. To change the USB Playback mix, follow these steps:

1. Start playback of a session from Pro Tracks Plus.
2. Press the **SHIFT** button then press the **USB PLAY MIX** button (both are located in the Recorder Panel).
3. Turn the **DATA WHEEL** to balance the level of GNX4 guitar processing and playback level. When the display reads USB MIX 0 it indicates that only GNX4 signals will be heard. Rotating this knob clockwise, you will begin to hear the playback level increase. GNX MIX 50 indicates the GNX4/computer playback mix is a 50/50 mix of both signals. Continuing to rotate the knob clockwise will decrease GNX4 level. GNX MIX 0 indicates that only playback from the computer will be heard.

When the GNX4 is not connected to your computer via USB, the USB Playback Mix parameter is hidden and returned to normal operating levels independent of USB. If your GNX4 is not connected to your computer and you press the **SHIFT** button and then the **USB PLAY MIX** button, the GNX4 will display NO USB.

USB 1-2 Level/USB 3-4 Level

The **USB 1-2 LEVEL** and **USB 3-4 LEVEL** knobs are used for boosting or cutting the amount of signal sent out the USB port to the computer. These controls are to be used if the signal level of the input source (mic, line, guitar) isn't optimized into your recording software (consult the Pro Tracks Plus User's Guide for information on proper recording levels). If the signal is too hot to Pro Tracks Plus, use these controls to decrease the level. The USB 1-2 Level and USB 3-4 Level knobs control the level for each USB pair of outputs so for example, if SUM+MIC is the selected USB 1-2 Source, increasing the level for the mic 6dB going up USB 2 will also increase the summed signal by 6dB going up USB 1. To increase or decrease the level of audio going up to the computer, follow these steps.

1. Play/sing through the GNX4 and check the level of signal reaching the recording software (consult the Pro Tracks Plus User's Guide for information on how to view recording signal levels).
2. Use which ever USB Level knob to boost or cut the signal level going to the recording software. The boost/cut range is from -6db (USB 1-2 -12) to +24dB (USB 1-2 24).

Computer Recording via USB

Using BIAS® Deck™ SE

You must read the Software Installation Guide that came packaged with the GNX4 before connecting it to your Mac®'s USB port and using BIAS Deck SE.

Configuring the Audio Settings for BIAS Deck SE

Once you have installed BIAS Deck SE and launched the program, you will have to configure the Audio Settings to recognize the GNX4 as the hardware you want to use. To configure BIAS Deck SE's Audio Settings for use with the GNX4 follow the steps outlined below:

1. With the GNX4 connected to your Mac, start the **BIAS Deck SE** application.
2. Go to **Options** and select **Hardware Configuration**.
3. Select **Core Audio** for the audio card and click **OK**.

4. Next go to **Options** and select **Hardware Options**.
5. Select **DigiTech Mac USB** for both the input and output and click **OK**.

You are now ready to begin recording with BIAS Deck SE.

Compact Flash File Structure

The GNX4 requires a specific file structure for organizing the different file types it uses. **To utilize a Compact Flash memory card in the GNX4 it must be formatted using the FAT16 File format.** DigiTech recommends that you format your card in the GNX4 using our internal format routine. Our internal format routine will configure the card as FAT16. You can also format a card on a PC using Windows® 2000 or XP but you MUST select the File System to be FAT (meaning FAT16) instead of FAT32 and enable the Quick Format option. To quickly format a Compact Flash memory card, the GNX4's setup menu provides a format function. If a Compact Flash memory card is not present in the Compact Flash memory card slot, the format function is not available. To format a Compact Flash memory card, follow the steps documented on page 75.

NOTE: The GNX4 is compatible with Type I Compact Flash cards only. It is not compatible with Type II cards or IBM/Hitachi Microdrives™.

When you view the card's contents on your computer, you will see a main directory folder called GNX4. Inside this directory are four sub directory folders in which you can move Song, MIDI, MP3, and Card Preset files to and from. These sub directories are labeled as follows:

SONGS

This is the folder in which all songs or loops that are created on the GNX4 reside. Within the Songs folder, each song is individually named. (For more information on song and track file naming conventions see page 103.) A SETUP.XML file is created within each song folder that stores song setup information including: Tempo, Pre-Roll, etc. Please refer to the **Song Setup** section on page 70.

MIDI

This is the folder in which you will place any Type 0 MIDI (.mid) files that are to be played by the GNX4's DRUMS/MP3 player. The GNX4 plays any MIDI file that appears in this folder both to the internal drum machine and out the GNX4's MIDI output jack. The GNX4's drum machine only responds to note information on MIDI channel 10. If the note data was saved using any other channel, the GNX4's drum machine ignores it.

Type 0 files contain only one track, and all of the MIDI messages (ie, the entire performance) is placed in that one track, even if it represents many musical parts upon different MIDI channels. Type 1 files separate each musical part upon its own track and are not compatible with the GNX4's playback engine.

MP3

This is the folder in which you will place any MP3 files you want to play back on the GNX4. The file names will be added to the end of the user MIDI patterns that are accessed using the PATTERN button in the Control Panel section of the GNX4.

Presets

This folder is where any user created presets that are stored to the compact flash (CF) card are stored. The card preset file is a special format file, not separate preset files like those dumped from MIDI or saved using the X-Edit editor librarian. Individual preset files or bulk dumps placed in this directory will not be recognized by the GNX4. Conversely, the preset file created by the GNX4 will appear in the X-Edit librarian thus allowing you to select and edit individual presets.

MIDI files and MP3s can use most any naming convention provided they have the .mid suffix for MIDI files and the .mp3 suffix for MP3s added at the end of the name.

Compact Flash File Functions

Compact Flash Storage/File Transfer

Since the GNX4 is equipped with both a compact flash (CF) d USB, it can act as a card reader for transferring any files that may reside on a card to and from any USB equipped computer. To enable the card reader function, follow these steps:

1. Place a CF card in the GNX4's memory card slot.
2. Connect your computer via USB to the GNX4 **(you must install the drivers from the X-Edit™ Editor/Librarian and USB Drivers CD prior to connecting the GNX4 to your computer)**.

ATTENTION: Do not remove your CF card during file transfer or you may lose files.

The **CF STORAGE** button in the Recorder panel will light indicating the CF card is being recognized by the computer. When the CF STORAGE button is lit, the GNX4's onboard recorder functions are disabled and the recorder display will read CF STOR. When you are finished transferring files, press the **CF STORAGE** button to disable the card reader function. The recorder display will return to its normal song/time status and you may resume recording onto the CF card. To copy files back and forth between the GNX4 and your computer, follow these steps:

Windows® Users

1. Connect the GNX4 to your computer via the included USB cable.
2. Press the **CF STORAGE** button (if it is not already enabled) to enable the card reader function. This disables using the GNX4's onboard recorder functions.
3. Double-click the My Computer icon on your computer's desktop. A new drive icon named GNX4 will appear in this window.
4. Double-click the GNX4 icon and the next window that appears will show all the contents on the Compact Flash card installed in your GNX4 including the GNX4 root directory folder.
5. Double-click the GNX4 folder to access the subdirectories. You can now drag song folders as well as MIDI files, MP3s, and card preset files to and from their appropriate folders on the card and your PC.
6. When finished, close the GNX4 window.
7. Press the **CF STORAGE** button to disengage it. The audio drivers for the GNX4 will now reinitialize and it can be used for USB audio streaming once again.

NOTE: If using Pro Tracks Plus Plus™ or any other audio recording application, it is recommended you save your work and exit the program to maximize USB bandwith for faster file transfer.

Mac® Users

1. Connect the GNX4 to your computer via the included USB cable.
2. Turn on the GNX4. Wait for the display to read the current preset.
3. Insert your Compact Flash card in the GNX4's memory card slot if you have not already done so.
4. Press the **CF STORAGE** button (if it is not already enabled) to enable the card reader function. This disables use of the GNX4's onboard recorder functions and a new drive should appear on your computer's desktop.
5. Double click the new drive to open it in a finder window. If you have this feature disabled, open the finder and select the new drive from the drive list in the left pane. The contents of the Compact Flash card will now be displayed in the window.
6. Double click the GNX4 folder to access the subdirectories. You can now drag your song folders, MIDI files, MP3s, and card preset files to and from their appropriate folders on the card and your computer.
7. When finished, eject the compact flash drive by selecting **File>Eject** from the menu bar.
8. Press the **CF STORAGE** button to disengage it.

The audio drivers for the GNX4 will now reinitialize and allow the Compact Flash card to be used for USB audio streaming.

Memory Card/Computer File Format

The GNX4 uses a specific song and track file naming convention that needs to be maintained when exchanging files with a computer. When a card is inserted into the GNX4, the songs appear in the Songs folder named: SONG01, SONG02, etc… The number of songs can change depending on how many songs or loops are saved on the memory card. Inside each of the song folders are the separate audio tracks which will be named TRAK01.wav, TRAK02.wav, up to TRAK08.wav. It is important that each song's name starts with SONGXX (XX = song number) with no spaces, and each audio track is named TRAK01-TRAK08 with a .wav extension in order for the GNX4 to recognize these files. You can rename tracks and songs while viewing them in the computer with some restrictions. Here are some naming formats that are acceptable.

MIDI files and MP3s can use most any naming convention provided they have the .mid suffix for MIDI files and the .mp3 suffix for MP3s added at the end of the name. These files must reside in their respective folders in order to be recognized by the GNX4.

The following names are acceptable for song folders:
Song01_rock
song01 rock
SONG01 rock
Song01rock

The following names are **not** acceptable for song folders:
Song_01
Song 01
Song 1

The following names are acceptable for individual audio track files:
Trak01_solo.wav
trak03lead.wav,
trak04 rhythm.wav
TRAK05 bass.wav

The following names are **not** acceptable for audio track files:
TRAK_01
Track 01
track 1

It is possible to have duplicate songs or tracks when renaming them in the computer. For instance, song01_rock and song01_jazz are really the same name to the GNX4 as are trak01_solo.wav and trak01_solo2.wav. The GNX4 only looks at the first six characters to identify the song and track information. The remainder of the name is not recognized but is provided for the purpose of identifying song and track names in your file system. There can only be a maximum of 99 songs on a memory card, and a maximum number of 8 tracks in each song.

Utilities

The Utility section contains all of the menus for assigning global functions to the GNX4. Global functions affect the GNX4 in its entirety rather than on a per preset basis. The Utility menus include: Volume Pedal Update, V-Switch Threshold, Expression Pedal Calibration, Bounce-Back, Bank Naming, MIDI Channel, MIDI Sysex Dumps, Amp Dumps, MIDI Mapping, MIDI Merge, and Factory Reset. To enter the Utility section, press the **UTILITY** button. Once in the Utility menu, the **NEXT** button selects the next menu (scrolls to the right), and the **PREV** button selects the previous menu (scrolls to the left). Each of these Utility menus is described in more detail in the following pages.

Volume Pedal Update

The GNX4 lets you select the Expression Pedal's position to be updated, after changing presets, when it is linked to the Volume Parameter. This feature lets you change presets and keep the volume level from the previous preset, if the Expression Pedal controls the volume for both presets. If this feature is disabled, new presets are set to the volume level value stored with the preset. The procedure for enabling or disabling the Volume Pedal Update is as follows:

1. Press the **UTILITY** button. The button will light indicating you are in the Utility menu.
2. Use the **PREV** or **NEXT** buttons to select VOLUMPDL (Volume Pedal Update) is displayed.
3. Rotate the **DATA WHEEL** to select On (enabled), or OF (disabled).
4. When finished, press **EXIT**.

V-Switch Threshold/Sensitivity

Applying extra pressure to the toe of the Expression Pedal engages a feature called V-Switch. V-Switch is used to alternate between controlling assigned Parameter(s) with the pedal, and using the pedal as a Wah pedal. The sensitivity of the V-Switch can be set to the amount of pressure you want to use. The following steps explain how to set the V-Switch Threshold:

1. Press the **UTILITY** button. The button will light indicating you are in the Utility menu.
2. Use the **PREV** or **NEXT** buttons to select VSWITCH (V-Switch).
3. Rotate the **DATA WHEEL** to select the threshold setting. Ranges are from 0 to 99, then off (OF) to disable (with 99 requiring more pressure to engage). The sensitivity may be auditioned while making adjustments. Use the V-Switch LED as an indicator of the switching status.
4. When finished, press **EXIT**.

Expression Pedal Calibration

The Expression Pedal on the GNX4 needs to be recalibrated for use after a factory reset has been performed. This calibration procedure is automatically activated after a factory reset procedure. In the event the pedal's calibration fails, or if the pedal does not function properly, it can be re-calibrated using the Pedal Calibration menu. The procedure for Calibrating the Expression Pedal is as follows:

1. Press the **UTILITY** button. The button will light indicating you are in the Utility menu.
2. Use the **PREV** or **NEXT** buttons to select PEDALCAL (Expression Pedal Calibration).
3. Press the flashing **STORE** button to enter the Pedal Calibration Menu. The display will read TOE DOWN (Toe Down).
4. Rock the Expression Pedal all the way forward to the toe down position and press the blinking number **4 Footswitch**. The display changes to read TOE UP (toe up).
5. Rock the Expression Pedal all the way back to the toe up position and press the blinking number **5 Footswitch**. VSW CAL is displayed and allows you to adjust the V-Switch Threshold.
6. Rock the Expression Pedal forward and apply the V-Switch pressure to the toe of the pedal. If further adjustment to the threshold is required, use the **DATA WHEEL** to select the threshold.

NOTE: If the Display shows CAL ERR, a calibration error has occurred and steps 2 through 5 need to be repeated.

7. When finished, press **EXIT**.

Preset Bounceback

If you would rather not bypass individual presets in **Preset Mode** by pressing their footswitches repeatedly, you can enable the Preset Bounceback function in the Utility menu. For example, let's say you select Preset 1 using **FOOTSWITCH 1** as your rhythm tone. Then you select Preset 4 using **FOOTSWITCH 4** as your solo tone. You can now press **FOOTSWITCH 4** again and Preset 1 will be selected again. Pressing **FOOTSWITCH 4** repeatedly will bounceback between Preset 4 and Preset 1. To enable the Preset Bounceback feature, do the following:

1. Press the **UTILITY** control panel button and use the **PREV/NEXT** arrow buttons to locate the Bounceback feature. The display will read BOUNCBAK.
2. Rotate the **DATA WHEEL** to turn the BounceBack feature on.
3. When finished, press **EXIT**.

NOTE: The Preset Bounceback feature only works when the GNX4 is in Preset Mode.

For more information regarding the footswitch functions for **Preset Mode** see page 59.

Hands-Free Default

The GNX4 has the ability to have hands free recording using either the onboard recorder or when connected to the computer while Pro Tracks Plus is running. The GNX4 cannot however have hands free control both the internal computer and the computer simultaneously.

When only a card is present in the memory card slot and no USB is connected, the hands free functions are dedicated to the onboard recorder. When only USB is connected and no card present, hands free functions are dedicated to the computer. But if you have both a card present in the memory card slot and USB connected, you must select which method of recording is going to have the hands free function. This is set using the Hands Free utility menu. To set this option, follow these steps:

1. Press the **UTILITY** button. The button will light indicating you are in the Utility menu.
2. Press the **NEXT** button several times to select HANDFREE (Hands Free Default).
3. Use the **DATA WHEEL** to select the default hands free function to the GNX4's recorder (HANDFREE CF) or to the computer (HANDFREE US).
4. When finished, press **EXIT**.

Bank Names

The GNX4 lets you customize the names of the 16 User Banks where the 80 User Presets reside as well as the 16 Card Banks where the 80 Card Presets reside when a Compact Flash card is installed. Customized Bank names aids in quickly identifying the User Bank containing the presets you may need for a particular song or set. The procedure for naming the User Banks is as follows:

1. Press the **UTILITY** button. The button will light indicating you are in the Utility menu.
2. Use the **PREV** or **NEXT** buttons to select BANKS (Bank Names).
3. Use the **DATA WHEEL** to select the User Bank or Card Bank you want to rename. The Preset Bank LEDs to the left of the **DATA WHEEL** indicate whether a User Bank or a Card Bank is selected.
4. Press **STORE** to access the naming menu. The far left character of the Bank name begins to blink.
5. Use the **DATA WHEEL** to select the desired alpha-numeric character.
6. Press the **NEXT** button to select the next character to the right, and the **PREV** button to select the previous character to the left.
7. Repeat steps 5 and 6 until the Bank name appears in the display.
8. Once the Bank name appears correctly in the display, press **STORE** again. NAMESAVD is displayed briefly indicating the Bank name has been saved, and then new Bank name appears.
9. When finished, press **EXIT**.

Utilities

MIDI Channel

The GNX4 MIDI channel is only used for receiving incoming MIDI data. The GNX4 does not send MIDI program change commands or CC data. The procedure for selecting the MIDI channel is as follows:

1. Press the **UTILITY** button. The button will light indicating you are in the Utility menu.
2. Use the **PREV** or **NEXT** buttons to select the MIDICHNL (MIDI Channel). The numeric display show the selected MIDI channel.
3. Rotate the **DATA WHEEL** to select the MIDI channel. Your choices include 1 through 16, AL (all), and oF (off).
4. When finished, press **EXIT**.

Bulk Dump

The Sysex Bulk Dump uploads all the GNX4 presets and utility data to a sysex librarian, or MIDI recording device. This is useful for making a backup copy of all your customized settings. The procedure for performing a Bulk Dump is as follows:

1. Connect a MIDI cable from the GNX4 MIDI Out to the the MIDI In of a MIDI recording device.
2. Press the **UTILITY** button. The button will light indicating you are in the Utility menu.
3. Use the **PREV** or **NEXT** buttons to select BULKDUMP (Bulk Dump). The **STORE** button will flash indicating it must be pressed to begin the bulk dump.
4. Set the MIDI recording device to record. (This step is not necessary if dumping to another GNX4.)
5. Press the **STORE** button to begin the dump. The display reads SEND PST 1 and counts up to SEND PST 80 when the dump is complete at which time the display returns to BULKDUMP.
6. When finished, press **EXIT**.

NOTE: Bulk Dump sends information on the MIDI channel defined in the MIDI Channel Menu.

MIDI Preset Dump

The Sysex Preset Dump uploads individual GNX4 presets to a sysex librarian, or MIDI recording device. This is useful for making a backup copy of customized presets, or copying your presets into another GNX4. The procedure for performing a Sysex Preset Dump is as follows:

1. Connect a MIDI cable from the GNX4 MIDI Out to the the MIDI In of a MIDI recording device or the MIDI in of another GNX4.
2. Press the **UTILITY** button. The Utility button's LED will light.
3. Use the **PREV** or **NEXT** buttons to select PRSTDUMP (Preset Dump).
4. Use the **DATA WHEEL** to select the preset number you want to dump.
5. Press the **STORE** button. The Display will read SEND TO.
6. Use the **DATA WHEEL** to select the destination preset number.
7. Set the MIDI recording device to record. (This step is not necessary if dumping to another GNX4.)
8. Press the **STORE** button again. The display will read SEND PST until the dump is complete at which time the display returns to PRSTDUMP.
9. When finished, press **EXIT**.

NOTE: MIDI Preset Dump sends information on the MIDI channel defined in the MIDI Channel Menu.

User Hypermodel™ Amp Dump

User Amp Dump uploads the GNX4 Amp HyperModels to a sysex librarian, or MIDI recording device. This is useful for making a backup copy of your customized Amp HyperModels, and copying your HyperModels into another GNX4. The procedure for performing a User Amp Dump is as follows:

1. Connect a MIDI cable from the GNX4 MIDI Out to the the MIDI In of a MIDI recording device or the MIDI in of another GNX4.

2. Press the **UTILITY** button. The Utility button's LED lights.
3. Use the **PREV** or **NEXT** buttons to select AMP DUMP (Amp Dump).
4. Use the **DATA WHEEL** to select the Amp number you want to dump.
5. Press the **STORE** button. The display will read SND TO.
6. Use the **DATA WHEEL** to select the destination User Amp number.
7. Set the MIDI recording device to record.
8. Press the **STORE** button again. The display will read SEND AMP until the dump is complete at which time the display returns to AMP DUMP.
9. When finished, press **EXIT**.

NOTE: Amp Dump sends information on the MIDI channel defined in the MIDI Channel Menu.

MIDI Mapping

MIDI Mapping provides access to all factory and user presets from external MIDI program change commands that may not correspond to the GNX4 preset. This is useful when multiple MIDI devices are chained together and controlled by one central unit. For example, the main MIDI controller can send out a program change command telling a particular MIDI unit to change to Program 10, but you may want the GNX4 to change to User Preset 27. You can remap the GNX4 so when it receives MIDI Program change 10, it calls up User Preset 27. The Procedure for mapping MIDI program changes is as follows:

1. Press the **UTILITY** button. The Utility button's LED lights.
2. Use the **PREV** or **NEXT** buttons to select M IDU I (MIDI Mapping).
3. Use the **DATA WHEEL** to select the incoming MIDI program number you want to remap. The flashing number to the right of the M increases and decreases as you turn the **DATA WHEEL**.
4. Press the **NEXT** button. The number in the red numeric display begins flashing. This number represents the GNX4 preset number that is selected when the GNX4 receives the MIDI program number shown to the right of the M in the alpha-numeric display.
5. Rotate the **DATA WHEEL** to select the preset number the GNX4 will use when it receives the selected MIDI program change.
6. When finished, press **EXIT**.

MIDI Merge

The MIDI Merge function echoes the incoming MIDI data to the MIDI Out port of the GNX4. This is useful when multiple MIDI devices are chained together, and you want to pass incoming MIDI Data on to MIDI devices downstream from the GNX4. The procedure for enabling or disabling the MIDI Merge function is as follows:

1. Press the **UTILITY** button located in the Control Panel. The Utility button's LED lights.
2. Use the **PREV** or **NEXT** buttons to select MIDIMRGE (MIDI Merge). The red numeric display reflects the current MIDI Merge status On or OF.
3. Use the **DATA WHEEL** to select the status.
4. When finished, press **EXIT**.

Drum MIDI

The GNX4's drum machine uses standard Type 0 MIDI files for each of its internal patterns. This MIDI information can be transmitted out the GNX4's MIDI output and up to the computer via USB. You can enable or disable these MIDI messages from being transmitted out these ports. Disabling these MIDI messages resolves the issue of having messages that are sent from the GNX4 being echoed by the computer back to the GNX4 and erroneously retriggering the drums if the drums are on. To enable or disable the drum pattern MIDI messages from being transmitted, follow these steps:

Utilities

1. Press the **UTILITY** button. The button will light indicating you are in the Utility menu.
2. Use the **PREV** or **NEXT** buttons to select *DRUMMIDI* (Drum MIDI). The red display reflects the current Drum MIDI status *On* or *OF*.
3. Use the **DATA WHEEL** to enable or disable transmission of the drum pattern MIDI messages.
4. When finished, press **EXIT**.

Default Drum Kit

Each drum machine pattern in the GNX4's drum machine has a default drum kit assigned to it when the pattern is played. This default kit can be disabled so that all patterns may be auditioned with the same kit without having to re-select the kit each time the pattern is changed. To enable or disable the default kit feature, follow these steps:

1. Press the **UTILITY** button located in the Control Panel.
2. Use the **PREV** or **NEXT** buttons to select *DFLT KIT* (Default Drum Kit). This feature is turned on from the factory.
3. Use the **DATA WHEEL** to enable (*On*) or disable (*OF*) this feature.
4. When finished, press **EXIT**.

Factory Reset

This function resets the GNX4 to its original factory settings. This procedure erases ALL custom user presets, utility settings, and re-calibration of the Expression Pedal. The procedure for performing a Factory Reset is as follows:

NOTE: Performing this function will erase all user-programmed data. Be sure you want to erase the memory and start fresh before continuing with this procedure. A factory reset <u>does not</u> erase any of the content on a Compact Flash card if installed in the GNX4.

1. Press the **UTILITY** button. The Utility button's LED lights.
2. Use the **NEXT** button to select *RESET ?* (Reset) and the **STORE** button will begin to flash.

NOTE: This procedure resets ALL user settings. Press the EXIT button now to abort the factory reset function.

3. Press the **STORE** button once and the display will show *CONFIRM?*.
4. Press the **STORE** button again and the display will display *FACRESET* and then *TOE DOWN*. You must recalibrate the Expression Pedal at this time.
5. While the display reads *TOE DOWN*, rock the Expression Pedal forward (toe down) and then press the flashing **Footswitch 4**.
6. When the display reads *TOE UP*, rock the Expression Pedal back (toe up) and press the flashing **Footswitch 5**. The display will then read *VSW CAL* which is a prompt for you to calibrate the V-Switch.
7. Press the Expression Pedal forward firmly as if activating a wah pedal and then rock it back. The display will now read *VSWITCH 50*, which is the default sensitivity. Test the V-Switch by pressing the Expression Pedal firmly forward a couple of times. The V-Switch LED next to the **DATA WHEEL** should turn on and off. If you find the V-Switch is too easy or to difficult to engage, you can adjust the V-Switch value higher (makes it harder to engage) or lower (makes it easier to engage). The Range is *0* to *99*. Above *99* the V-Switch can be set to OFF to disable it.
8. When finished, press **EXIT**.

Trouble Shooting Guide

My computer does not recognize my GNX4.

- If after turning on and initializing the GNX4 the USB Active led does not stay lit, the computer may not have correctly enumerated the GNX4 USB connection. The computer may give you message stating that a USB Device is not recognized. If this happens reboot your computer.
- If you are using Windows 2000, you must first install drivers from the X-Edit™ Editor/Librarian and USB Drivers CD before connecting the GNX4 to your computer. See the Software Installation Guide.

Audio playback from Pro Tracks Plus™ has pops and clicks.

- Try the **Wave Profiler** under **Options->Audio**. This seems to fix most problems. Otherwise, try using MME drivers in the **Options->Audio->Advanced, Driver Mode** selection. These are the safest drivers but also have the most latency.
- Try increasing the latency slider in the audio settings.
- Try installing the Service Pack 1A (or later) download (Windows XP®) available from www.microsoft.com.

Hands-Free recording on GNX4 doesn't work or has stopped working.

- If it was working at one point but has stopped working, try exiting Pro Tracks Plus and then restarting it (make sure to save your project).
- Cycle power to the GNX4 before entering Pro Tracks Plus or X-Edit™.
- If it has never worked at all, there is a problem with USB MIDI The most probable causes are using incorrect or incorrectly installed drivers and/or .dll or a bad USB cable.
- See the section on driver installation.
- Make sure **DigiTech USB MIDI** is highlighted for MIDI Input under **Options>MIDI** devices.
- Make sure **'Hands-Free'** is set as the default setting in the **Utility Menu**.
- Check the utility menu handfree is set to US for recording to ProTracks or CF to record to the internal recorder.

I can't hear audio playback from Pro Tracks Plus.

- If the 'Reamp' mode in the GNX4 is active try switching to a different mode like '*STEROALL*'.
- Make sure the faders in Pro Tracks Plus are turned up.
- Check that the tracks you want to playback are un-muted.
- Go to **Options->Audio->Drivers** and under output drivers, select **'DigiTech USB 1-2 In/Out'** and de-select everything else.
- See the section on driver installation.
- Make sure your speakers are connected properly and the volume is turned up.

My GNX4 doesn't record to Pro Tracks Plus.

- Go to **Options->Audio->Drivers** and under input drivers, select **'DigiTech USB 1-2 In/Out'** and **'DigiTech USB 3-4 In Only'** De-select everything else.
- Make sure the proper drivers are installed.
- See the section on driver installation.
- For an initial track, make sure '*REAMPUSB*' mode in the GNX4 is not selected in the **CF/USB 1-2 Source** menu.
- Make sure the track that you are recording on has the correct input assignment and that it is armed.

I can't get Re-Amping to work.

- See the **Re-Amping a Guitar Track** section of this Owner's Manual.

Where did my wave files go?

- Wave files all get saved to the folder specified in **Options->Global**, **Audio Data**.

My waves are low/too high in level.

- The recording signal level can be boosted or reduced using the CF/USB1-2 and USB3-4 Level controls.

Trouble Shooting Guide

Pro Tracks Plus intermittently locks up.

- Close any other open programs besides Pro Tracks Plus check "task manager" to make sure there are no hidden programs running.
- Try reducing the number of plug-ins and soft-synths.
- Increase the amount of memory in your system.
- Get a faster hard drive.
- Put your audio data on a different hard drive from your OS and applications.
- Get a faster computer.
- Please refer to the system requirements section.
- Run chkdisk on your drive.
- Run msconfig (Windows XP), choose “selective start” and uncheck “load startup items”.
- Reinstall Pro Tracks Plus.

Pro Tracks Plus playback is louder than my guitar.

- You can adjust the mix of playback versus guitar by adjusting the USB Playback mix parameter.

I get audio dropout while I’m recording.

- Try increasing the latency slider in the Option>Audio Settings Menu window.
- Try reducing the number of tracks in your project (mute won't help, you either have to "archive" the tracks, or delete them)
- Close any other open programs besides Pro Tracks Plus check Windows **Task Manager** to make sure there are no hidden programs running.
- Try reducing the number of plug-ins and soft-synths.
- Increase the amount of memory in your system.
- Get a faster computer or faster hard drive.
- Put your audio data on a different hard drive from your OS and applications.
- The hardware has been profiled incorrectly. Run Wave Profiler and delete the aud.ini file then reprofile the hardware.
- Verify the driver setup on the driver tab.
- Make sure the GNX4 is set as the timing master for recording and playback.
- Make sure Service Pack 1A or later (Windows XP®) has been installed. Click on the Advanced Tab and set the Buffer Size to 256.
- Choose **Start>Run** and type MSCONFIG, click “OK” then click on the Startup Tab at the upper right of the window that opens. Uncheck all items listed, click “OK”. Then restart your computer. You can go back and choose those items again at a later time if necessary.

When I launch X-Edit, it can’t find the GNX4.

- Make sure your drivers are loaded correctly and that the USB cable is inserted securely.
- See the section on **USB Driver installation**.

I hear doubling of the playback.

- Input monitoring is probably active. Go to **Options->Audio->Input Monitoring** to disable.
- Make sure the GNX4 is the playback device, not your internal sound card.

My mic didn’t record.

- Make sure mic signal routing is set to MIC DRY, MIC RVB, or MIC FX and that **CF/USB 1-2** or **USB 3-4** sources are set to one of the following : STEROALL, MONO ALL, SUM+DGTR, SUM+MIC, DGTR+MIC, or DRY MIC.

My drums didn’t record.

- Make sure STEROALL, MONO ALL, DRUMS ST or DRUMS MN is selected as source for **CF/USB 1-2** or **USB 3-4**.

My line inputs didn’t record.

- Make sure line signal routing is set to line dry, line rvb, or line fx and that **CF/USB 1-2 or USB 3-4** sources are set to one of the following : STEROALL, MONO ALL, SUM+DGTR, SUM+MIC or DRY LINE.

Trouble Shooting Guide

Pro Tracks Plus Plus won't launch.

- This was probably caused by interrupting the USB connection while in a previous Pro Tracks Plus session. You must reboot your system to fix this problem.
- There is a conflict with your computer's video card. By disabling the theater audio driver in the video card, the software should work.

I don't hear playback from USB 3-4.

- Playback is only available on USB 1-2. USB 3-4 is used for additional track recording – like dry guitar, mic, drums, etc.

I only get sound on one side of the recording.

- Locate the Mono/Stereo box at the bottom of each track and make sure the mono tracks are set to mono and the stereo tracks are set to stereo.

When I export my song to a Wave file my CD burning program says the file type is not recognized as a Wave file.

- Make sure when you export the audio that you choose 16 bit not 24.

Using a Mac to receive audio stream from the GNX4, the Mac USB input and output is visible, but so is the PC selection. Can these be removed?

- The PC audio will work on a Mac. However some Mac applications can't select more than one audio device and thus those applications must use the Mac device to record all 4 channels.

Appendix

Preset List

BANK 1 SHOWCASE
1. HYBRID
2. CLNCHRS
3. DUAL AMP
4. BAD BASS
5. GREASER

BANK 2 STARS 1
6. STEVERAY
7. SATCH
8. JIMIHAZE
9. RANDY
10. MAYQUEEN

BANK 3 AMPS 1
11. BASS MAN
12. MATCHED
13. VOXTOP
14. HIWATTAG
15. JAZZDRIV

BANK 4 GENETX
16. WARP ME
17. BLAKBASS
18. MEAT X 2
19. GNX DIRT
20. MEAN/CLN

BANK 5 BASS AMP
21. MOD BASS
22. GTR>BASS
23. ROCKIN
24. GRUVIN
25. GRINDER

BANK 6 METAL
26. RECTIFY
27. SOLO
28. WHAMMY
29. RAT FINK
30. DUCKSOLO

BANK 7 ROCK
31. MO WAH
32. PHASE 4
33. STEREOZE
34. WARM PIE
35. STACKED

BANK 8 BLUES
36. BLUE DLY
37. BLUEBALL
38. LONESTAR
39. GTRORGAN
40. MO SLIDE

BANK 9 COUNTRY
41. PICKEN
42. PDLSTEEL
43. A MIXLDN
44. HODOWN
45. ROTARY

BANK 10 JAZZFUSN
46. DRIVIN
47. CHIMES
48. SMOOTHY
49. LATENITE
50. COLDFUSN

BANK 11 CLEAN
51. ACOUSTIC
52. COMP CLN
53. SCHWELL
54. 5THS
55. CLEANWAH

BANK 12 STARS 2
56. ERIC J
57. ANGUS
58. CARLOS
59. EDDIE VH
60. PAT JAZZ

BANK 13 AMPS 2
61. TWEEDY
62. MDRNBRIT
63. JC-JAZZ
64. TWINVERB
65. BOOGEY

BANK 14 ALT ROCK
66. SURFIN
67. FUZZO
68. TREMBO
69. HILLBLLY
70. ENVELOPE

BANK 15 HYBRID
71. TWEEDFUZ
72. TUNE CAB
73. MEGAWARP
74. CLNCRNCH
75. DBLCHUNK

BANK 16 SPECIAL
76. STUTTER
77. TRIPLET
78. DIVEBOMB
79. RIFMATIC
80. YAYA

MIDI Implementation Chart

Function	Transmitted	Received	Remarks
MIDI Channel	1 - 16	1 - 16	
Mode	X	2, 4	
Note Number	X	X	
Velocity	X	X	
After Touch	X	X	
Pitchbend	X	X	
Control Change	X	0 - 127	See MIDI CC List
Program Change	O	0 - 128	
System Exclusive	O	O	
System Common			
Song Position:	X	X	
Song Select:	X	X	
Tune:	X	X	
System Real Time			
Clock:	X	X	
Commands:	X	X	
Aux Messages	X	X	

Mode 2: Omni On, Mono
Mode 4: Omni Off, Mono

O: Yes
X: No

MIDI CC List

Parameter	CC#	Parameter	CC#
Pickup Type/On/Off	CC2	Noise Gate Attack	CC61
Pickup Type/Type	CC3	Noise Gate Pluck Sensitivity	CC62
Expression Pedal	CC4	Chorus/Mod On/Off	CC65
Volume Post	CC6	Chorus/Mod Type	CC66
Volume Pre	CC7	Chorus/Mod Level	CC67
Wah On/Off	CC8	Chorus/Mod Param1	CC68
Wah Type	CC9	Chorus/Mod Param2	CC69
Wah Pedal	CC10	Chorus/Mod Param3	CC70
Compressor On/Off	CC11	Chorus/Mod Param4	CC71
Compressor Attack	CC12	Chorus/Mod Param5	CC72
Compressor Ratio	CC13	Delay On/Off	CC73
Compressor Threshold	CC14	Delay Type	CC74
Compressor Gain	CC15	Delay Level	CC75
Whammy/IPS On/Off	CC16	Delay Time	CC76
Whammy/IPS Type	CC17	Delay Feedback	CC77
Whammy/IPS Level	CC18	Delay Ducker Threshold	CC78
Whammy/IPS Parameter 1	CC19	Delay Ducker Attenuation	CC79
Whammy/IPS Parameter 2	CC20	Delay Balance	CC80
Whammy/IPS Parameter 3	CC21	Genetx Warp Amp	CC83
Stompbox On/Off	CC22	Genetx Warp Cabinet	CC84
Stompbox Type	CC23	Genetx Amp/Cabinet Warp	CC85
Stompbox Gain	CC24	Reverb On/Off	CC89
Stompbox Level	CC25	Reverb Type	CC90
Stompbox Param1	CC26	Reverb Level	CC91
Stompbox Param2	CC27	Reverb Decay	CC92
Stompbox Param3	CC28	Reverb Damping	CC93
Stompbox Param4	CC29	Reverb PreDelay	CC94
Amp Channel	CC30	Reverb Balance	CC95
Ch 1 Amp Type	CC31	LFO1 Speed	CC105
Ch 1 Amp Gain	CC33	LFO1 Waveform	CC106
Ch 1 Amp Level	CC34	LFO2 Speed	CC110
Ch 1 Cabinet	CC35	LFO2 Waveform	CC111
Ch 1 Cabinet Tuning	CC36		
Ch 1 EQ On/Off	CC37		
Ch 1 Bass Frequency	CC38		
Ch 1 Bass	CC39		
Ch 1 Midrange Frequency	CC40		
Ch 1 Midrange	CC41		
Ch 1 Treble Frequency	CC42		
Ch 1 Treble	CC43		
Ch 1 Presence	CC44		
Ch 2 Amp Type	CC45		
Ch 2 Amp Gain	CC46		
Ch 2 Amp Level	CC47		
Ch 2 Cabinet	CC48		
Ch 2 Cabinet Tuning	CC49		
Ch 2 EQ On/Off	CC50		
Ch 2 Bass Frequency	CC51		
Ch 2 Bass	CC52		
Ch 2 Midrange Frequency	CC53		
Ch 2 Midrange	CC54		
Ch 2 Treble Frequency	CC55		
Ch 2 Treble	CC56		
Ch 2 Presence	CC57		
Noise Gate On/Off	CC58		
Noise Gate Type	CC59		
Noise Gate Threshold	CC60		

Appendix

General MIDI Drum Sample List

Sample Name	#	Sample Name	#
Acoustic Bass Drum	35	Ride Cymbal 2	59
Bass Drum 1	36	Hi Bongo	60
Side Stick	37	Low Bongo	61
Acoustic Snare	38	Mute Hi Conga	62
Hand Clap	39	Open Hi Conga	63
Electric Snare	40	Low Conga	64
Low Floor Tom	41	High Timbale	65
Closed Hi-Hat	42	Low Timbale	66
High Floor Tom	43	High Agogo	67
Pedal Hi-Hat	44	Low Agogo	68
Low Tom	45	Cabasa	69
Open Hi-Hat	46	Maracas	70
Low-Mid Tom	47	Short Whistle	71
Hi-Mid Tom	48	Long Whistle	72
Crash Cymbal 1	49	Short Guiro	73
High Tom	50	Long Guiro	74
Ride Cymbal 1	51	Claves	75
Chinese Cymbal	52	Hi Wood Block	76
Ride Bell	53	Low Wood Block	77
Tambourine	54	Mute Cuica	78
Splash Cymbal	55	Open Cuica	79
Cowbell	56	Mute Triangle	80
Crash Cymbal 2	57	Open Triangle	81
Vibraslap	58		

Specifications

General Specifications

A/D Converter:	24-bit high performance audio
D/A Converter:	24-bit high performance audio
Sampling Frequency:	44.1 kHz throughout
DSP Section:	3 Audio DNA™ DSP Processors + dedicated 8-Track Engine/MP3 Player/MIDI Drum Machine DSP
Preset Memory:	80 Factory Presets, 80 User Presets, 80 Card Presets (using an optional Compact Flash® Memory Card)

Digital Connections:

Footswitch:	1/4" jack (compatible with optional GNXFC)
MIDI In:	5-pin Din
MIDI Out/Thru:	5-pin Din
Universal Serial Buss (USB):	Type B, supports USB1.1 Full Speed (12 MHz Bandwith USB 2.0 compatible)
Compact Flash Memory Card Interface:	Type 1 (solid state cards) 32 MB up to 2 GB FAT 16 File Format Only *Note: GNX4 is NOT compatible with Type II cards or IBM/Hitachi Microdrives™

Analog Input Connections:

Guitar Input:	1/4" Unbalanced (Tip-Sleeve)
Input Impedance:	475 kOhms
Mic Preamp Input:	XLR Balanced (Female XLR, pin 2 Hot)
Phantom Power:	+48V
Input Impedance:	600 Ohms balanced
Maximum Input Level:	-22 dBu with mic input level (trimpot) set to max, or -2 dBu with mic input level (trimpot) set to max and -20 dB Pad enabled
Line Inputs:	1/4” Balanced (Tip-Ring-Sleeve) or Unbalanced
Input Impedance:	20 kOhms Balanced, 10kOhms Unbalanced
Maximum Input Level:	+22 dBu

Analog Output Connections:

Line Outputs:	1/4 Impedance Balanced or Unbalanced
Output Impedance:	1 kOhm per side
Maximum Output Level:	+22 dBu
Balanced Outputs:	Male XLR
Output Impedance:	120 Ohms
Maximum Output Level:	+22 dBu
Ground Lift Switch:	When GND position (pin 1 connects to pin 4 chassis ground) When LIFT position (pin 1 is “lifted” meaning it is not electrically connected)
Headphones:	1/4" Stereo (Tip = Left, Ring = Right, Sleeve = Ground) 100 mW per channel at 50 Ohms

Appendix

Analog Inputs to Analog Outputs:

Guitar Input to 1/4" Outputs

S/N ratio:	> 106 dB A-weighted; ref = max signal @ 1kHz, 22kHz measurement bandwidth
Frequency Response:	20 Hz - 17 kHz (+0 / - 3 dB)
THD+N:	< 0.0018% typical at -4 dBu, 1 kHz, 0 dB input gain

Guitar Input to XLR Outputs

S/N ratio:	> 106 dB A-weighted; ref = max signal @ 1kHz, 22kHz measurement bandwidth
Frequency Response:	20 Hz - 17 kHz (+0 / - 3 dB)
THD+N:	< 0.0018% typical at -4 dBu, 1 kHz, 0 dB input gain

Mic Input to 1/4" Outputs (Mic Dry selected)

S/N ratio:	> 106 dB A-weighted; ref = max signal @ 1kHz, 22kHz measurement bandwidth
Frequency Response:	20 Hz - 17 kHz (+0 / - 1 dB)
THD+N:	< 0.0015% typical at -10 dBu, 1 kHz, 0 dB input gain

Mic Input to XLR Outputs

S/N ratio:	> 106 dB A-weighted; ref = max signal @ 1kHz, 22kHz measurement bandwidth
Frequency Response:	20 Hz - 20 kHz (+0 / - 1 dB)
THD+N:	< 0.0018% typical at -18.4 dBu, 1 kHz, 0 dB input gain

Line Inputs to 1/4" Outputs (Line Dry selected)

S/N ratio:	> 106 dB A-weighted; ref = max signal @ 1kHz, 22kHz measurement bandwidth
Frequency Response:	20 Hz - 20 kHz (+0 / - 1 dB)
THD+N:	< 0.0023% typical at +10 dBu, 1 kHz, 0 dB input gain

Line Inputs to XLR Outputs

S/N ratio:	> 106 dB A-weighted; ref = max signal @ 1kHz, 22kHz measurement bandwidth
Frequency Response:	20 Hz - 20 kHz (+0 / - 1 dB)
THD+N:	< 0.0025% typical at +10 dBu, 1 kHz, 0 dB input gain

GNX4 On-board Digital Recorder:

General Specification: 16-bit, 44.1 kHz (CD quality)

GNX4 USB Recording Specifications:

Bit depth: supports 16-bit or 24-bit (depends on setup in Recording Software)

Sample Rate: 44.1 kHz

The following measurements were made using 24-bit mode:

Line Input to USB (Dry Line recorded to USB)

Analog to Digital Converter Performance:

S/N ratio: > 110 dB A-weighted; ref = max signal @ 1kHz, 22kHz measurement bandwidth

USB to 1/4" Outputs (Audio Playback from USB to GNX4)

Digital to Analog Converter Performance:

S/N ratio: > 106 dB A-weighted; ref = max signal @ 1kHz, 22kHz measurement bandwidth

USB to XLR Outputs (Audio Playback from USB to GNX4)

Digital to Analog Converter Performance:

S/N ratio: > 106 dB A-weighted; ref = max signal @ 1kHz, 22kHz measurement bandwidth

Power Requirements:

US and Canada:	120 VAC, 60 Hz	Adapter: PSS3-120
Japan:	100 VAC, 50/60 Hz	Adapter: PSS3-100
Europe:	230 VAC, 50 Hz	Adapter: PSS3CE-230
UK:	240 VAC, 50 Hz	Adapter: PSS3-240

Power Consumption: 21.0 Watts

Dimensions: 21.5" Length x 9" Width x 3.25" Height

Unit Weight: 10 lbs.

DigiTech engineers are constantly working to improve the quality of our products. Specifications are therefore subject to change without notice.

Notes

Notes

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GNX4 Owner's Manual 18-0449-A

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