

# OWNERS MANUAL



Intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**CAUTION: Risks of electrical shock — DO NOT OPEN**

**CAUTION: To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer Servicing to qualified service personnel.**



## **PRO-FEX™**



**WARNING: TO PREVENT ELECTRICAL SHOCK OR FIRE HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. BEFORE USING THIS APPLIANCE, READ THE OPERATING GUIDE FOR FURTHER WARNINGS.**

## PRO-FEX MANUAL UPDATE PART 2

Continuing product development and utilizing feedback from professional musicians, Peavey Electronics has made further changes to the Pro-Fex MIDI Controlled, Multi-Effects Preamp since the manual went to press. Please make note of these further changes to your manual.

### PAGE 11

#### **PART B. MIDI Dynamic Effect Parameter Control.**

A ninth continuous controller has been added to each preset. This Parameter is always set to control VOLUME and the default controller number is 7 (MIDI Volume).

### PAGE 14

#### **CHORUS**

**Feedback:** Chorus feedback is variable from -100% to +100%, allowing the creation of flanged and phasing type effects.

**Mix:** Chorus Mix varies from -100% to +100% for phase-inverted mixing with the direct signal.

### PAGE 14

#### **DELAY**

**Mix:** The mix on all types of delay now varies from -100% to +100% to allow for phase inverted mixing of the delayed and direct signal.

### PAGE 16

#### **3-BAND EQ WITH SWEEPABLE MID**

A new parameter has been added to this effect:

**Type:** There are 3 types of 3-Band Sweep Mid EQ curves: GUITAR, VOCAL, and DRASTIC. GUITAR and VOCAL have different cutoff points for the high pass and low pass shelving filters, and allow for boost and cut in all 3 bands. The DRASTIC type allows for infinite cut in each of the 3 bands, and the shelving filters allow for cut only and no boost.

### PAGE 16

#### **SHORT DELAY**

**Mix:** Short Delay mix varies from -100% to +100% to allow for inverse phase mixing with the direct signal.

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# INTRODUCTION TO THE PRO-FEX™ PROGRAMMABLE MIDI CONTROLLED MULTI-EFFECTS PREAMP

Your new Pro-Fex™ is the result of advanced digital technology and acoustical research designed to provide a wide range of superb effects for both the performing and recording environment. The Pro-Fex has been designed to be the "master" instrument preamp. The input is switchable and may be configured for line level or instrument level signals. The system includes four of the most preferred forms of equalization ranging from 5-band graphic, 4-band full parametric, 3-band conventional with a sweepable mid range and a conventional guitar EQ. The Pro-Fex uses 64x oversampling 16-bit input, 24-bit multi-effect processing, and 18-bit Digital to Analog conversion on the output. The effect blocks, such as Reverb, Chorus, Delay, Distortion, etc., are totally independent of each other and may be combined in any order. Each effect may be independently mixed and its level is separately adjustable, with the final mix assignable to the preset of your choice.

Effect parameters for each effect block may be controlled remotely via MIDI with continuous controllers, and there are four optional programmable function footswitches.

Since Noise Gates are extremely important when chains of various effects are used, the Pro-Fex features a programmable noise gating system that is included on all programs.

Mono inputs have been located on the front and rear panels for rack-mount convenience. The stereo outputs are located on the rear panel and we have included headphone capability for private listening during programming, rehearsal, etc. Ease of programming the many different parameters has been high priority for the Pro-Fex. A "speed" knob is used for data entry, as opposed to "up" and "down" increment/decrement buttons, and the 20 x 2 LCD window indicates the data change visually. System headroom is continuously monitored via the 5-segment LED ladder array.

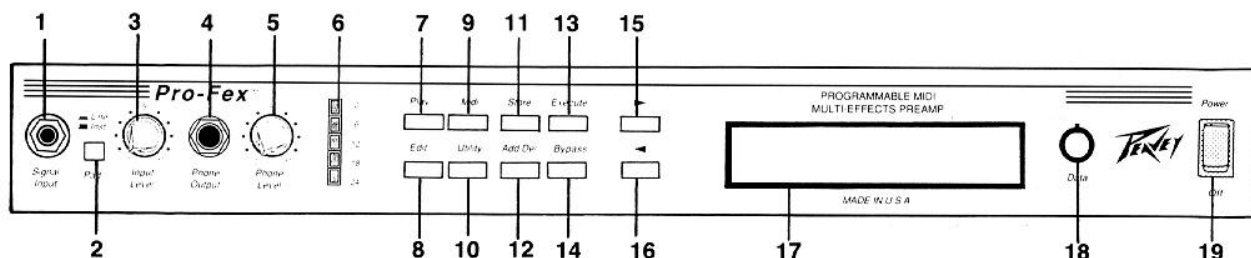
Your Pro-Fex programmable MIDI Multi-Effects preamp will prove extremely useful in creating an unlimited assortment of

musical expressions. In order to get the most out of your Pro-Fex, we urge you to read this manual thoroughly. However, for those of you who can't wait to hear what this incredible processor can do, go on to the "Getting Started" section for a preview.

## OVERVIEW AND GENERAL FEATURES

- Digital stereo multi-effects processor.
- Independent effect blocks can be combined in series or parallel in any order to form multi-effect chains.
- The effect blocks have independent mix and level control where applicable.
- Effect blocks include: Compressor, Distortion, Overdrive, Chorus, Delay, Auto Pan, Pitch Shift, Reverb, Exciter 1, Exciter 2, Envelope Filter, Guitar EQ, 5-Band Equalizer, 3-Band EQ with Sweepable Mid, 4-Band Parametric EQ, Speaker Simulation, Hum Filter, Noise Gate.
- Programmable noise gate included in all effects chains.
- Dynamic effect parameter control via MIDI.
- 128 presets mapped to 128 programs accessible by front panel, MIDI, or any of the four footswitches.
- Inputs for up to four programmable function footswitches (footswitches optional).
- Mono input (front or rear) with stereo outputs.
- Input pad for line or instrument level signals.
- Stereo headphone output with level control.
- 20 x 2 LCD display.
- 5 segment input LED array.
- Full bandwidth operation.
- 16 bit A/D conversion with 64x oversampling, 24 bit multi-effect processing, and 18 bit D/A conversion.

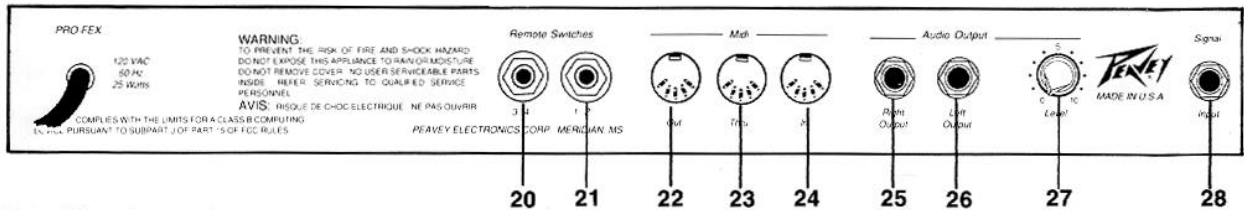
## PART 1. PANEL LAYOUTS



### A. Front Panel

- Signal Input**  
Switchable for line level input or instrument level signals.
- Pad Selection Button**  
Used to activate/deactivate input pad for line or instrument level signals.
- Input Level Control**  
Controls the input level coming into the processor. The control should be adjusted to a level that allows the LED meter to illuminate yellow on program peaks. Failure to adjust the input level correctly may cause clipping.
- Stereo Headphone Output**
- Headphone Output Level**  
Controls the signal level coming out of the headphone output.
- LED Meter for Signal Input**  
Illumination of the yellow LED indicates that the input signal is within 6 dB of clipping. Adjust the source signal to allow the yellow LED to illuminate on program peaks. Illumination of the red LED indicates clipping.
- Play Key**  
Used to access preset selection, program mapping and preset volume.

- (8) **Edit Key**  
Used to access preset editing functions for either constructing a new preset or editing an existing one.
- (9) **MIDI Key**  
Used to access MIDI functions.
- (10) **Utility Key**  
Used to access view angle adjustment and the four footswitch assignments.
- (11) **Store Key**  
Used to store changes to presets.
- (12) **Add/Del Key**  
Used to insert (Add) or remove (Delete) effect blocks from effect chains.
- (13) **Execute Key**  
Used to initiate system exclusive functions or store functions.
- (14) **Bypass Key**  
Used to place the Pro-Fex in bypass. This key will also un-mute if unit was muted by a footswitch.
- (15) **Cursor Right Key**
- (16) **Cursor Left Key**
- (17) **Main Display Window**  
Large 20 x 2 LCD display with variable view angle adjustment for easy visibility.
- (18) **Data Knob**  
Used to rapidly change system parameters or to rapidly increase (clockwise)/decrease (counter-clockwise) the displayed value.
- (19) **Power On/Off Switch**



## B. Rear Panel

- (20) **Footswitch Jacks 3 and 4**
- (21) **Footswitch Jacks 1 and 2**
- (22) **MIDI Out Port**  
Used to transmit program changes and system exclusive information to an external MIDI device.
- (23) **MIDI Thru Port**  
Provided to allow chaining of MIDI compatible devices. All MIDI data received at the MIDI In jack is echoed, unaltered to this jack.
- (24) **MIDI In Port**  
Used to receive MIDI program commands and system exclusive information from an external MIDI device.
- (25 & 26) **Right and Left Signal Outputs**  
Right and left outputs are provided for true stereo effects. For mono output operation, either output may be utilized.
- (27) **Output Level Control**  
Controls the overall signal level coming out of the left and right outputs.
- (28) **Signal Input**  
This additional input jack provides a convenient input connection point on the back of the Pro-Fex. The front input takes precedence over the rear input.

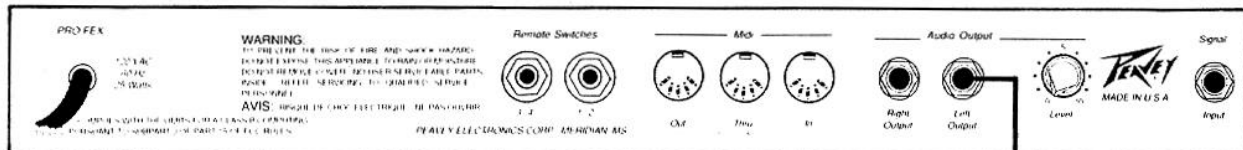
## PART 2. CONNECTION DIAGRAMS

### A. Using a Direct Input on a Guitar Amplifier

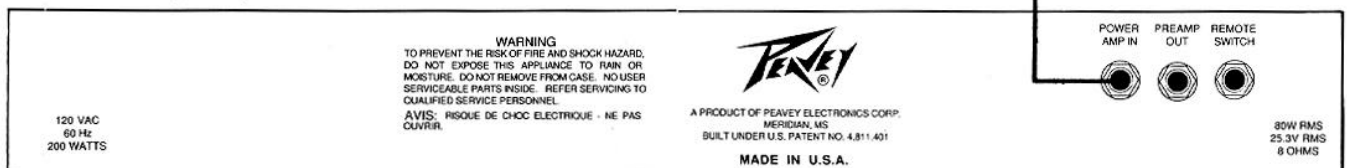
Although the Pro-Fex can be connected directly into the preamp input or effects loop of a guitar amplifier, better results

may be obtained by connecting the output of the Pro-Fex to the direct input on your amplifier.

#### PRO-FEX (Back)



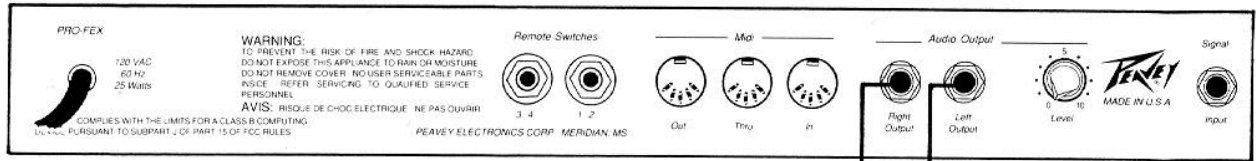
#### GUITAR AMP (Back)



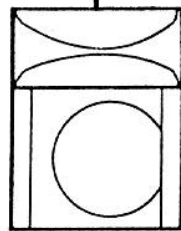
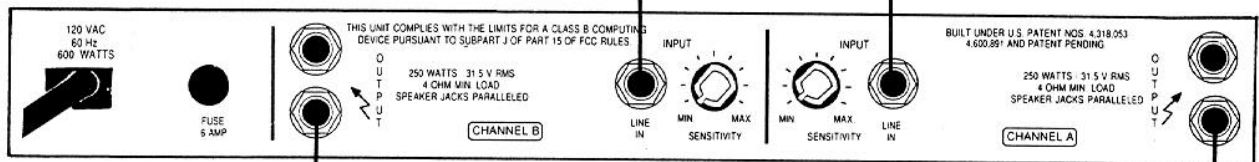
## B. Using a Separate Amplifier and Speakers

In this diagram the Pro-Fex is used as the preamp in a system which is composed of a separate amplifier and speaker cabinets.

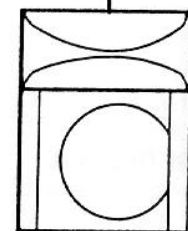
### PRO-FEX (Back)



### STEREO AMP (Back)



Left Speaker

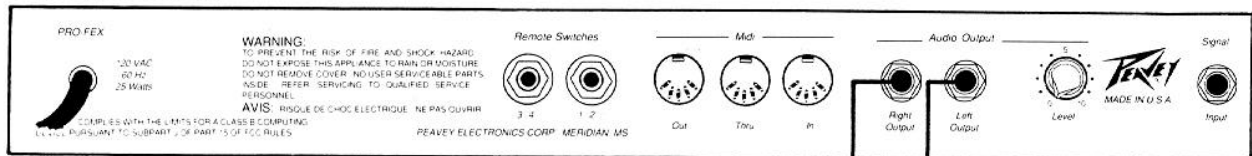


Right Speaker

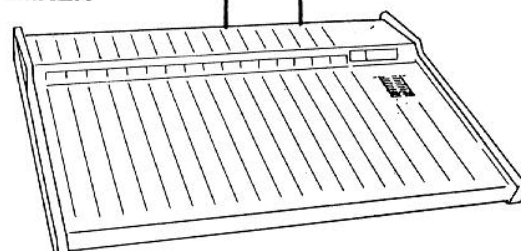
## C. Direct Connection to a Mixing Console

The output of the Pro-Fex may be connected directly into the input of a mixing console either for live performance or recording.

### PRO-FEX (Back)



### MIXER



## PART 3. GETTING STARTED

**Note:** The following examples in this tutorial may use names and values that are different from those currently stored in your Pro-Fex.

- A. With the Pro-Fex turned off, connect the output of your guitar into the Signal Input Jack (1). Connect the right and left Outputs (25 & 26) of the Pro-Fex to the input of a high quality amplification system.
- B. With the Output Level Control (27) set to "0", turn on the Pro-Fex power switch. The LCD display will show:

```
Peavey PRO-FEX .  
FX / Preamp ver. (x.x)
```

- C. Momentarily, one of the operation displays will appear. Press the Play (7) key and the PLAY display will show:

```
1 (ECHO OH OH 1)  
Volume = 50
```

Use the cursor Right/Left (15/16) keys to position the cursor under the number in the upper left hand corner of the display.

- D. Make sure the volume of your amplifier is turned down and then turn it on. Play a few notes on your guitar and as you do so, slowly increase the setting of the Input Level Control (3) until the yellow LED in the input LED array flashes on the loudest peak.
- E. Set the Output Level Control (27) of the Pro-Fex to "5" and slowly increase the volume of your amplifier to a desirable level.
- F. Now by using the Data knob (18) you can select any of the 128 factory presets in the Pro-Fex.

By now you should be pretty impressed with the Pro-Fex's capabilities, but there is much more to the Pro-Fex, so keep reading and you'll find out all about it.

## PART 4. DEFINITIONS AND ABBREVIATIONS

### Definitions

**Preset:** A Preset is a storage location in memory that holds a complete effect chain. The Preset consists of a preset name, the effect chain, and all the user adjustable parameters. There are 128 preset locations within the Pro-Fex. When new, or after reinitialization, the Pro-Fex contains 128 factory presets. Any of the factory presets can be edited to create a custom preset.

**Program:** There are 128 program locations in the Pro-Fex. Each program consists of a preset and a program volume setting, both selectable by the user.

### Abbreviations

Recv = receive  
Xmit = transmit  
Prst = preset  
Pram = parameter  
Cntrl - = controller number  
Fq = Frq = Freq = frequency  
Cntr = Cntour = contour  
BW = B/W = bandwidth  
Sn = Sens = sensitivity  
DI = dly = delay  
Fb = Fdbk = feedback

## PART 5. PLAY SECTION

The Play display of the Pro-Fex has three basic parts: The program number (on the upper left hand side of the display), the Preset name and number (on the upper right hand side of the display), and the program volume.

```
1 (ECHO OH OH 1)  
Volume = 50
```

In the above display, program number 1 contains preset 1 in parentheses "ECHO OH OH 1", with a program volume of 50.

The PRO-Fex comes from the factory with program numbers and presets mapped 1 to 1.

### A. Program selection

#### ● Manually selecting programs

For our example we will select #8 containing preset 8 "Shark Attck." Press the play (7) key until the Play display appears.

```
1 (ECHO OH OH 1)  
Volume = 50
```

With the cursor positioned under the program number, use the Data knob (18) to select program #8.

```
8 (SharkAttck 8)  
Volume = 50
```

#### ● Selecting Programs Via MIDI

When sending MIDI program changes to the Pro-Fex, the MIDI program numbers correspond to the Pro-Fex programs as follows:

MIDI program change #	Pro-Fex program #
0	1
1	2
...	...
...	...
127	128

### B. Program Mapping

Any of the presets in the Pro-Fex can be mapped to a particular program location. This is an especially useful feature if you are using the footswitches for program up/down commands.

For example, if you are using presets 7, 24, and 30 in one song, you may map them to program numbers 1, 2, and 3 if you so desire. Then the transition from one preset to the next is a simple tap and go on the footswitch.

Example: Mapping Preset 4 to program location number 1. Press the Play (7) key and the play display will appear.

```

1 (ECHO OH OH 1)
Volume = 50
  
```

Press the cursor Right/Left (15/16) key until the cursor is flashing under the preset number. Then use the Data knob (18) to select preset 4.

```

1 (BIG FIFTH 4)
Volume = 50
  
```

Volume levels are stored as part of the PROGRAM and not the PRESET, so large changes of volume may occur as you change the preset number without re-adjusting the volume.

The program to preset map and volume is automatically stored as you change them.

### C. Program Volume

Press the Play (7) key until the play display appears, then press the cursor Right/Left (15/16) keys until the cursor is under the volume setting

```

1 (BIG FIFTH 4)
Volume = 50
  
```

Use the Data knob (18) to select the desired volume.

The program to preset map and volume is automatically stored as you change them.

## PART 6. EDIT SECTION

### A. Introduction

The Pro-Fex has been carefully designed to offer extremely flexible, user friendly editing capabilities. Each preset in the Pro-Fex can be customized from the basic Effect Block Chain to the specific variable parameters of each effect. Up to 16 Effect Blocks can be chained together in any order or configuration, and in addition each preset contains a programmable noise gate which is located at the end of the effect block chain.

**\*Note:** All edits are performed in the edit buffer.

If you change the preset number that you are working on before storing it first, you will automatically lose your previous changes. Original PRESET settings are not affected until your modified preset has been stored in that location.

### B. Description of Edit Displays and Basic Edit Functions (A Guided Tour)

The Pro-Fex has two Edit displays: the Chain Edit display and the Effect Block Edit display. Select program 2 in the Play display, then press the Edit (9) key and the Chain Edit display will appear.

```

2 (OVERDRIVE)
OD → DL + CH → NG
  
```

This particular preset contains an effect chain with four effect blocks; (Overdrive, Delay, Chorus, and Noise Gate). The number in the upper left hand corner indicates the preset (#2) which is being edited. The arrows or plus signs between the different effect blocks indicate whether the effect blocks are connected in series or parallel respectively. This is indicated when the cursor is moved under the particular sign.

```

2 (series)
OD → DL + CH → NG
  
```

```

2 (parallel)
OD → DL + CH → NG
  
```

Each effect block may be changed by positioning the cursor beneath it and using the Data knob (18) to select the desired effect block. The effect block may be edited by positioning the cursor beneath it and then pressing the Edit (8) key.

```

Rate = 0.7Hz (CHORUS)
Rt DP DI Fb Mx
  
```

This is the Effect Block Edit display. The upper right hand part of the display indicates which effect block is currently being edited. The abbreviations across the lower part of the display are the parameters of the particular effect block. Moving the cursor beneath the parameters will display the current parameter setting.

```

Depth = 25% (CHORUS)
Rt Dp DI Fb Mx
  
```

```

Dly = 8.4ms (CHORUS)
Rt Dp DI Fb Mx
  
```

```

Fdbk = 0% (CHORUS)
Rt Dp DI Fb Mx
  
```

```

Mix = 100% (CHORUS)
Rt Dp DI Fb Mx
  
```

**\*Note:** For descriptions of each Effect Block and its variable parameters, see Part 9; "Individual Effect Blocks."



## C. Creating a Custom Multi-Effect (A Guided Tour)

The first step to creating a custom multi-effect is to choose a preset which will be your starting point. If you want to create a preset which is very similar to an existing preset, you will find it advantageous to edit the existing preset and then save the edited preset to a new preset location. If you are creating an entirely new preset, you may edit any preset, then save the edited preset to the new preset location.

### 1. Constructing the Effect Chain

For our example we will create a custom multi-effect and store it in preset location 65.

**Note:** The preset currently stored at location 65 will be replaced by the new preset.

The effect chain will consist of an overdrive, a delay, and a noise gate.

We shall start from PRESET (4 BIG FIFTH) and modify it to get the desired effect. Starting from the PLAY display, choose a program that uses the preset you desire to use as your starting point OR change the preset number to the desired preset.

```
1 (BIG FIFTH 4)
Volume = 50
```

Press the Edit (8) key to enter the Chain Edit display.

```
4 (OVERDRIVE)
OD→PS→CH→RV→NG
```

Now eliminate the undesired effects in the old chain. Press the cursor Right (15) key until the cursor is below Pitch Shift (PS).

```
4 (OVERDRIVE)
OD→PS→CH→RV→NG
```

The Add/Del (12) key either adds or deletes effects from the effect chain. When the cursor is positioned under a particular effect on the effect chain, pressing the Add/Del (12) key will delete the effect. When the cursor is under an arrow or plus sign in the effect chain, the Add/Del (12) key will add effects to the chain.

Press the Add/Del (12) key to delete pitch shift from the effect chain.

```
4 (CHORUS)
OD→CH→RV→NG
```

Press the Add/Del (12) key to delete Chorus from the effect chain.

```
4 (REVERB)
OD→RV→NG
```

Use the Data knob (18) to select delay as the second effect block in the effect chain.

```
4 (DELAY)
OD→DL→NG
```

The basic effect chain is now complete.

### 2. Editing Effect Block Parameters

Press the cursor Right/Left (15/16) keys until the cursor is under OD (Overdrive).

```
4 (OVERDRIVE)
OD→DL→NG
```

Press the Edit (8) key and the Effect Block Edit display will appear.

```
Lo Roll = 0.2 (OVDR)
LR PD Cl Lv
```

Using the Data knob (18) select the desired value for each parameter. Use the cursor Right/Left (15/16) keys to select the parameter to be edited.

**\*Note:** A different set of parameters will be displayed for each effect block being edited. For a complete listing of these parameters see PART 8, Table of Effect Blocks.

### 3. Naming and Storing a Preset

After editing a preset it may be named or renamed. Press the Store (11) key and the Store display will appear.

```
STORE (BIG FIFTH)
TO 4 BIG FIFTH
```

Press the cursor Right (15) key until it is under the first letter of the preset name (in the parentheses).

```
STORE (BIG FIFTH)
TO 4 BIG FIFTH
```

Using the cursor Right/Left (15/16) keys and the Data knob (18) select the desired preset name.

```
STORE (YIG FIFTH)
TO 4 BIG FIFTH
```

```
STORE (YOUR NAME)
TO 4 BIG FIFTH
```

**\*Note:** If you wish to change the name of an existing preset without changing anything else in the preset, simply press the Edit (8) key then the Store (11) key.

#### 4. Storing Edited Preset

Once the preset name has been entered, all that remains is to select a preset location in which to store the new preset.

```
STORE      (YOUR NAME )
TO 4       BIG FIFTH
```

Press the cursor Right (15) key until the cursor is under the preset number.

```
STORE      (YOUR NAME )
TO 4      BIG FIFTH
```

Use the Data knob (18) to select the new preset location.

```
STORE      (YOUR NAME )
TO 65    PRESET 65
```

**\*Note:** If you do not wish to store your changes over the existing preset, simply press EDIT or PLAY at this time to abort the STORE.

Press either the Store (11) or Execute (13) keys to store the new preset. The display will briefly show:

```
STORE      COMPLETE
TO 65    PRESET 65
```

## PART 7. MIDI SECTION

The Pro-Fex has two MIDI displays: The MIDI Channel/System Exclusive Display, and the MIDI Dynamic Effect Parameter Control Display. The MIDI Channel/Sysex Display is accessed by pressing the MIDI (9) key when you are in either the Play or Utility sections. The MIDI Dynamic Effect Parameter Control Display is accessed by pressing the MIDI (9) key when you are in the Edit section.

### A. MIDI Channel/System Exclusive Display

#### 1. MIDI Receive Channel

The MIDI receive channel determines on which channel the Pro-Fex will receive MIDI program changes and System Exclusive information. Press the Play (7) key, then press the MIDI (9) key and the MIDI Channel/Sysex Display will appear.

```
Recv Ch = 1      (MIDI)
RC TC TP DP LP DB LB
```

The cursor will be under RC (receive channel). The receive channel (1-16 or OMNI) may be selected using the Data knob (18). For our example select channel #3.

```
Recv Ch = 3      (MIDI)
RC TC TP DP LP DB LB
```

**\*Note:** In order to receive System Exclusive messages previously dumped from a Pro-Fex the receive channel must be set to the same channel the System Exclusive was previously dumped on.

#### 2. MIDI Transmit Channel

The MIDI Transmit Channel determines on which channel the Pro-Fex will send program changes and System Exclusive information. In the MIDI Channel/Sysex display, press the cursor Right/Left (15/16) keys until the cursor is under TC.

```
Xmit Ch = 1      (MIDI)
RC TC TP DP LP DB LB
```

Select the transmit channel (1-16) using the Data knob (18). For our example select channel #2.

```
Xmit Ch = 2      (MIDI)
RC TC TP DP LP DB LB
```

**\*Note:** The MIDI transmit channel of the Pro-Fex must be set the same as the MIDI receive channel on the external device unless the external device is set to Omni.

#### 3. Transmit Program Change Enable/Disable

The Transmit Program Change function enables the Pro-Fex to send a program change to an external MIDI device. This can be particularly convenient when using the footswitch(es) for program up/down commands. In the MIDI Channel/Sysex Display, press the cursor Right/Left (15/16) keys until the cursor is under TP.

```
Xmit Prg Chg N   (MIDI)
RC TC TP DP LP DB LB
```

Use the Data knob (18) to enable (Y) or disable (N).

#### 4. System Exclusive Dump and Load Functions

The Pro-Fex can use MIDI System Exclusive (SYSEX) to transmit (Dump) and receive (Load) preset data to and from external storage devices.

#### ● System Exclusive Dump Functions

The Pro-Fex can dump either a single preset, all the presets, or a bank of presets.

To dump a single preset to an external storage device (or another Pro-Fex): Press the Play (7) key, then the MIDI (9) key to enter the MIDI Channel/Sysex Display. Press the cursor Right/Left (15/16) key until the cursor is under DP.

```
Dump Prst 1      →EXEC←
RC TC TP DP LP DB LB
```

Use the Data knob (18) to select the preset(s) (1-128 or All) to be dumped. Press the Execute (13) key to execute the dump. The display will briefly show:

```
SYSEX   DUMP
  in progress
```

**\*Note:** The MIDI transmit channel of the Pro-Fex must be set the same as the MIDI receive channel on the external device unless the external device is set to Omni.

The Pro-Fex can also dump Banks of presets. The Banks are arranged as follows:

Bank 0	1-10
Bank 1	11-20
Bank 2	21-30
Bank 3	31-40
Bank 4	41-50
Bank 5	51-60
Bank 6	61-70
Bank 7	71-80
Bank 8	81-90
Bank 9	91-100
Bank 10	101-110
Bank 11	111-120
Bank 12	121-128

To dump a Bank of presets to an external device (or another Pro-Fex): Press the Play (7) key, then the MIDI (9) key to enter the MIDI Channel/Sysex Display. Press the cursor Right/Left (15/16) key until the cursor is under DB.

```
Dump Bank 0    →EXEC←
RC TC TP DP LP DB LB
```

Use the Data knob (18) to select the Bank (0-12) to be dumped. Press the Execute (13) key to execute the dump. The display will briefly show:

```
SYSEX DUMP
  in progress
```

**\*Note:** the MIDI transmit channel of the Pro-Fex must be set the same as the MIDI receive channel on the external device unless the external device is set to Omni.

#### ● System Exclusive Load Functions

The Pro-Fex can load either a single preset or a Bank of presets. When loading presets back into the Pro-Fex to their original locations you need only to send the sysex dump to the Pro-Fex and the presets will automatically be placed in their original locations. Presets may also be loaded to any other location by following the steps below:

To load a single preset from an external storage device (or another Pro-Fex): Press the Play (7) key, then the MIDI (9) key to enter the MIDI channel/sysex display. Press the cursor Right/Left (15/16) key until the cursor is under LP.

```
Load Prst    1
RC TC TP DP LP DB LB
```

Select the preset to be loaded using the Data knob (18). Transmit the sysex information from the external device to the Pro-Fex.

**\*Note:** The MIDI receive channel of the Pro-Fex must be set the same as the channel the data was originally transmitted on. An error message will appear if they are not the same.

```
IGNORING SYSEX
on channel 2
```

If this occurs, set the receive channel to the channel shown in the message and transmit again.

As with single presets, banks can be loaded into their original location by simply transmitting the data to the Pro-Fex at any time. To load a bank into a different location, follow the steps below:

To load a bank of presets from an external storage device (or another Pro-Fex): Press the Play (7) key, then the MIDI (9) key to enter the MIDI channel/sysex display. Press the cursor Right/Left (15/16) key until the cursor is under LB.

```
Load Bank    0
RC TC TP DP LP DB LB
```

Select the bank (0-12) to be loaded using the Data knob (18). Transmit the sysex information from the external device to the Pro-Fex.

**\*Note:** The MIDI receive channel of the Pro-Fex must be set the same as the MIDI transmit channel on the external device.

## B. MIDI Dynamic Effect Parameter Control Display (A Guided Tour)

MIDI dynamic parameter control introduces a vast variety of expression possibilities. This could include changing delay or reverb times, EQ frequencies or gains, effect levels, and many other parameters in real time with any MIDI continuous controller device.

Each preset in the Pro-Fex has 8 selectable controls. These controllers can be assigned to control any of the variable parameters of any of the effects within the preset. The MIDI continuous controllers are stored along with the preset.

For our guided tour we will select preset 1. Press the Play (7) key and select program 1.

1 (ECHO OH OH 1)  
Volume = 50

Press the Edit (8) key and the Edit chain display will appear.

1 (OVERDRIVE)  
OD →DL →NG

Press the MIDI (9) key and the MIDI Dynamic Effect Parameter Control display will appear. The cursor will be flashing under control number one. For our guided tour we will assign control 2 to "Delay Mix" using MIDI controller #1.

### 1. Setting the Parameter to be controlled

OFF (CNTRL)  
#1 Pram C# Ch Sc

Use the Data knob (18) to select the desired control number.

OFF (CNTRL)  
#2 Pram C# Ch Sc

Press the cursor Right (15) key once to advance the cursor to the parameter setting. Using the Data knob (18) you may view all the variable parameters for preset #1. For our example we will choose "Delay Mix."

DELAY Mix (CNTRL)  
#2 Pram C# Ch Sc

### 2. MIDI controller number

Press the cursor Right (15) key to advance the cursor to the controller number setting. Use the Data knob (18) to select MIDI controller #1.

**\*Note:** The available MIDI controllers are 0-120.

Cntrl # = 1 (CNTRL)  
#2 Pram C# Ch Sc

### 3. MIDI Controller Receive Channel

Press the cursor Right (15) key to advance to the Midi Controller Receive Channel setting.

Channel = 1 (CNTRL)  
#2 Pram C# Ch Sc

Use the Data knob (18) to select the desired MIDI Controller Receive Channel.

### 4. MIDI Parameter Control Scale Factor

The MIDI Parameter Control Scale Factor allows the control range to be adjusted from full range to some percentage of full range.

This particular feature allows a wide variety of possibilities for both live performance and the recording environment.

Here's how the SCALE factor works: MIDI Continuous controllers output a VALUE between 0 and 127. The Pro-Fex biases these values around 64 so that a controller output of 0 = -100%, 64 = 0% and 127 = +100%

MIDI VALUE:	0	64	127
PRO-FEX VAL:	-100%	0%	100%

The SCALE setting is variable from -100% to +100% so that the Pro-Fex can scale the MIDI VALUES to some amount less than 100%. A negative scale flips the controller output so that increasing controller values, decrease the controlled parameter.

The MIDI controllers shift the controlled parameters about the preset values.

EXAMPLE 1: Right Delay Time is variable from 0 to about 500 milliseconds so that if delay time is set to 0, scale is set to +100% and a MIDI VALUE of 127 (100%) was received, the Delay time would be 500 ms (100%). Now if Delay time was set to 250ms, and scale was 100%, then a MIDI value of 96 (50%) would change delay time to 500ms, and a MIDI value of 32 (-50%) would change delay time to 0ms. To get more fine tuning from the controller, set the scale to 50% so that a controller value 127 (100%) would set the delay to 500ms (100%) and a MIDI value of 96 (50%) changes the delay to 325ms (75%).

EXAMPLE 2: Left Delay Feedback

If you wish to control Delay Feedback up and down about 20% around a center point of 30%, set Feedback to 30% in the effect edit display. Set the MIDI controller to DELAY L.Fbk and scale to 20%. Now full deflection of the MIDI controller in the positive direction will change feedback to 50%, and full deflection in the negative direction will change it to 10%.

### 5. To Set MIDI Scale Factor

Press the cursor Right (15) key to advance the cursor to the Scale Factor setting. Select the desired Scale Factor using the Data knob (18).

Scale = 100% (CNTRL)  
#2 Pram C# Ch Sc

### 6. Store the Controllers

## PART 8. UTILITY SECTION

### A. Setting the View Angle

Because the Pro-Fex may have to be viewed from a variety of angles, the LCD display contrast may be adjusted to provide comfortable visibility.

1. Press the Utility (10) key and the Utility display will appear.

UTIL (View Angle)  
 VA F1 F2 F3 F4

The cursor will be flashing under VA (View Angle).

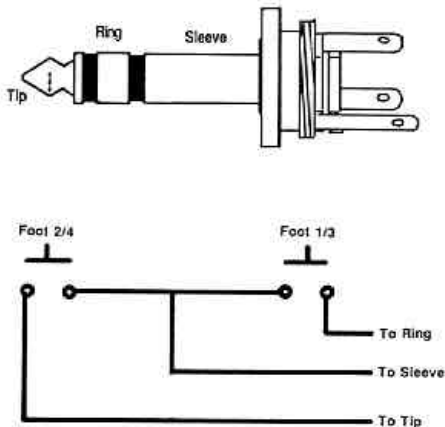
2. Use the Data knob (18) to adjust the view angle for maximum clarity.

## B. Assigning the Functions of the Four Footswitches

The Pro-Fex is equipped with inputs for four assignable footswitches (footswitches optional). Each of four footswitches can be assigned to any of the following functions:

BYPASS: (effect/bypass switching)  
 PROGRAM UP: (program change up)  
 PROGRAM DOWN: (program change down)  
 MUTE: (mutes output)  
 REPEAT: (sets delay feedback to 100% for infinite repeats)

The two tip/ring/sleeve footswitch jacks on the rear of the unit are configured as follows:



Example:

Press the Utility (10) key and the Utility display will appear.

UTIL (View Angle)  
 VA F1 F2 F3 F4

Press the Cursor Right (15) key until the cursor is flashing below F1.

UTIL PRG UP (Foot 1)  
 VA F1 F2 F3 F4

Use the Data knob (18) to select the desired Footswitch Function. For our example we will assign Footswitch 1 to "Repeat."

UTIL REPEAT (Foot 1)  
 VA F1 F2 F3 F4

## PART 9. INDIVIDUAL EFFECT BLOCKS

### Compressor

The Compressor effect block suppresses high input levels while boosting small signal levels as the input decreases. The net result is a more consistent output volume and increased sustain. Compressor is a mono effect.

#### Parameters

**Attack:** The Attack parameter adjusts the speed at which the compressor responds to increases in signal level. Range is from extra slow to extra fast.

**Release:** The Release adjusts the time for the output signal to decay. Setting the release to extra fast results in a very rapid decay and setting the release to extra slow results in a very slow decay.

**Sustain:** Seven levels of sustain vary the maximum amount of gain that can be achieved by the compressor at small signal levels.

**Level:** The Level parameter adjusts the maximum output of the compressor. Range is from 0-100.

**Noise Gate:** At low signal levels a compressor's gain may be very high, raising the level of noise output with no signal present. 10 levels of noise suppression are available on the output of the compressor.

### Distortion

The Distortion effect block creates a digital version of solid state distortion. Distortion is a mono effect.

#### Parameters

**Drive:** The Drive parameter controls the amount of distortion by pre-filtering and boosting the input signal. The parameter range is 0-100.

**Post Gain:** The Post Gain is used to reduce the signal level to prevent overdriving the EQ section of the effect block.

**Bottom:** The Bottom parameter controls the low frequency gain. Parameter range (-50 to 50).

**Edge:** The Edge parameter controls the high frequency gain. Parameter range (-50 to 50).

**Body:** The Body parameter controls the mid frequency gain. Parameter range (-50 to 50).

**Shift:** The Shift parameter is used to select the center point of the mid frequency range. The Shift frequency is adjustable from 300 Hz to 900 Hz.

**Resonance:** The Resonance parameter adjusts the bandwidth of the mid frequency range. Parameter range (0.1 to 4.9).

### Overdrive

The Overdrive effect block offers a second popular type of distortion. Overdrive is a mono effect.

## Parameters

**Low Rolloff:** The Low Rolloff parameter is used to adjust the tonality by rolling off the low frequencies in 100 Hz increments to 1900 Hz. The range of the low roll off is Normal and (0.1 to 1.9).

**Pre Drive:** The pre-drive parameter is a gain control with a range from 1 to 10 which is used to overdrive the signal.

**Clip:** The Clip parameter is a "soft-clipping" control which provides increased sustain. Reducing the Clip level increases the sustain.

**\*Note:** As clip level is reduced, the overall output level of the Overdrive is reduced. Therefore very low clip levels will require a large increase in output volume. This can greatly decrease the dynamic range of the Preamp and increase output noise level.

**Level:** Adjusts the output level of the Overdrive effect block.

## Chorus

The versatile Chorus effect block allows for generation of all the common modulated effects (Chorus, Flange, Vibrato) and many uncommon effects. The Chorus effect block creates a stereo effect from a mono input.

## Parameters

**Rate:** The Rate parameter controls the Chorus rate and has a range of 0-9.9 Hz.

**Depth:** The Depth parameter controls the Chorus depth and has a range of 0-100%.

**Delay:** The Delay parameter controls the width of the Chorus modulation. The range is from 0-21.9 ms.

**Feedback:** The Feedback parameter is used to create Flange effects. The range is from 0-99%.

**Mix:** The Mix parameter sets the direct/effect mix, 0 to 100 respectively.

## Delay

The Pro-Fex offers three versatile types of Delays.

### Stereo Delay:

A true stereo delay with delay times up to 485 ms.

### Parameters

**Left Delay:** Used to select the amount of delay on the left channel (0-485 ms).

**Left Feedback:** Used to select the amount of delay feedback on the left channel. This generates the a repeating or echoing sound (0-99%).

**Right Delay:** Used to select the amount of delay on the right channel (0-485ms).

**Right Feedback:** Used to select the amount of delay feedback on the left channel (0-99%).

**Mix:** Used to set the direct (0%)/effect (100%) mix of the Delay effect.

### Tapped Delay:

This Delay creates a stereo delay from a mono source.

### Parameters

**Left Delay:** Used to select the amount of delay on the left channel (0-970 ms).

**Right Delay:** Used to select the amount of delay on the right channel (0-970 ms).

**Feedback:** Used to select the amount of delay feedback. Feedback is always taken from the longest delay output (0-99%).

**Mix:** Used to set the direct (0%)/effect (100%) mix of the Delay effect.

### Mono Delay:

A Mono Delay with delay times up to 970 ms.

### Parameters

**Delay:** Used to select the amount of delay (0-970 ms).

**Feedback:** Used to select the amount of delay feedback (0-99%).

**Mix:** Used to set the direct (0%)/effect (100%) mix of the Delay effect.

## Auto Pan

The Auto Pan effect block is used to pan the output signal between the left and right outputs. The panning rate and depth are both user selectable. The Auto Pan is a stereo effect.

### Parameters

**Rate:** The Rate parameter is used to select the speed at which the signal pans between the two outputs. The range is from 0.0 Hz to 99.9 Hz.

**Depth:** The Depth parameter determines the amount of signal being panned. Selecting depth setting of 10% would yield a less defined pan, and setting the depth to 90% would result in a strongly defined pan. The range is from 0% to 100%.

## Pitch Shift

The Pitch Shift effect block is a mono effect which can transpose the pitch either up or down up to one octave in 1/2 step increments.

### Parameters

**Pitch:** The Pitch parameter is used to select large amounts of transposition in half step increments. The range of the Pitch parameter is -12 to +12 (1 octave).

**Cents:** The Cents parameter is used to fine tune the transposed Pitch when necessary. The range of the Cents parameter is -50 to +50. (1/2 step is 100 Cents)

**PreDelay:** Up to 50 milliseconds of delay can be set before the pitch transposition begins. This creates a doubling or chorusing type sound.

**Feedback:** The Feedback parameter controls the amount of output signal that is sent back to the input of the PreDelay this can be used to create climbing or descending pitch type effects.

**Mix:** The Mix parameter controls the direct (0)/effect (100) mix to the output of the effect block.

## Reverb

The versatile stereo Reverb effect block contains eight types of Reverbs, each with fully adjustable parameters.

### Types

**Room:** The Room reverb has the ambience of a live room.

**Stage:** The Stage reverb has the ambience associated with a club stage.

**Hall:** The Hall reverb has the reverberations and ambience of a concert hall.

**Plate:** The Plate reverb produces a smooth reverb similar to that achieved with plate-reverbs.

**Tunnel:** The Tunnel reverb produces the many echoes associated with the acoustics of a tunnel.

**Spring:** The Spring reverb simulates the reverb produced by a spring reverb machine.

**Gated:** A gated reverb is a smooth rolling reverb that cuts off sharply rather than decaying away.

**Reverse:** A reverse gated reverb builds from a quiet attack to a sharp decay, giving the impression of the instrument sound being played in reverse.

### Parameters

**Size:** The size parameter determines the size of the reverb being used. Parameter range (Small, Medium, Large, Huge)

**Time:** The reverb time of each reverb can range from 0 to 30 seconds. For Gated and Reverse types from 0 to 450 milliseconds.

**Damping:** The Damping parameter controls the tonality of the reverb being produced. The setting range is 125 Hz to 8 kHz and OFF. A low setting (250 Hz) results in high frequency reverberations being decayed very quickly, higher settings (4 kHz, 8 kHz or OFF) allow the high frequencies to continue on in the reverberations.

**Mix:** The Mix parameter controls the direct (0%)/effect (100%) mix at the output of the effect block.

## Exciter 1

The Exciter 1 effect block is a special digital filter which can be used to either emphasize or de-emphasize harmonics. The Exciter 1 is a mono effect.

### Parameters

**Frequency:** When the contour parameter is set to a positive number the Frequency parameter controls the amount of harmonics being emphasized. When the contour parameter is set to a negative number the Frequency parameter controls the amount of harmonics being de-emphasized

**Contour:** The Contour parameter is used to select the emphasis or de-emphasis of harmonics. Setting the Contour to a positive number will emphasize harmonics and setting the Contour to a negative number will de-emphasize harmonics.

## Exciter 2

The Exciter 2 effect block is a Mono effect which uses a "distortion technique" to add harmonics. Using this technique does not in fact result in a distorted sound but instead produces a particular exciter effect.

### Parameters

**Drive:** The Drive parameter setting determines the amount of harmonics added. The range is from 0 (no harmonics) to 100 (maximum).

**Tune:** The Tune parameter controls the amount of emphasis. The range is from 0.1 (excites lower frequencies) to 4.9 (excites higher frequencies).

**Type:** The Type parameter is used to select between 3 different distortion types which produce 3 different sounds. Type 1 adds even harmonics, Type 2 adds odd harmonics, Type 3 adds even and odd harmonics.

**Balance:** The Balance parameter is used to set the balance between excited (100) and direct (0).

## Envelope Filter

The Envelope Filter effect block is an amplitude modulated filter. As the input signal level to the envelope filter changes, the filter frequency changes. This effect is sometimes referred to as an automatic wah. The Envelope is a mono effect.

### Parameters

**Sensitivity:** The Sensitivity parameter is used to adjust the sensitivity to changing input signal levels. If the sensitivity is set to a positive number then the filter frequency will increase with a louder input signal. If the sensitivity is set to a negative number then the filter frequency will decrease with a louder input signal. The Sensitivity ranges from -0 to +100.

**Frequency:** The Frequency parameter adjusts the starting point of the filter frequency. From there the filter will sweep up or down (depending on sensitivity) as the playing level changes. When the sensitivity is negative, the FREQ values 0-100 correspond to the starting frequency ranging from 2K to 5 kHz respectively. When the sensitivity is positive, the Frequency parameter values correspond to the Frequency range 100 Hz to 2 kHz.

**Bandwidth:** When the Bandpass filter type is selected the Bandwidth parameter is used to adjust the width of the Bandpass filter (0 is narrowest, 100 is widest). When the Lowpass filter type is selected the Bandwidth parameter is used to adjust the slope of the Lowpass filter cutoff (0 is steepest slope, 100 is least steep slope).

**Type:** The Type parameter is used to select the filter type. The two filter types are Bandpass and Lowpass. The width of the Bandpass filter or the slope of the Lowpass filter are determined by the Bandwidth parameter.

**Mix:** The Mix parameter is used to control the direct (0%)/effect (100%) mix at the output of the effect block.

## Guitar EQ

The Guitar Equalizer effect block is a sweepable mid EQ used on many guitar amplifiers.

### Parameters

**Low:** The Low parameter controls the level of the low frequency range. The level can be adjusted between 0 and 100.

**Mid:** The Mid parameter controls the level of the mid frequency range. The level can be adjusted between 0 and 100.

**Shift:** The Shift parameter is used to select the center of the Mid frequency. Range (0-100)

**High:** The High parameter controls the level of the high frequency range. The level can be adjusted between 0 and 100.

## 5-Band Graphic Equalizer

The 5-Band Equalizer effect block is a full stereo five-band EQ with +/-12 dB of gain on each frequency band allowing emphasis or de-emphasis of any of the 5-bands. The center frequencies of the 5-bands are as follows: 100 Hz, 330 Hz, 1 kHz, 3 kHz, 10 kHz.

## 3-Band EQ With Sweepable Mid

The 3-Band Sweepable Mid EQ effect block is a standard mono EQ with +/-12 dB of gain on each frequency band.

### Parameters

**Low Gain:** The Low Gain parameter adjusts the gain of the low frequency band parameter. Range is -50 to +50.

**Mid Frequency:** The Mid Frequency parameter is used to select the center frequency of the Mid Frequency band. The range of the Mid Frequency parameter is 20 Hz to 2.2 kHz.

**Mid Gain:** The Mid Gain parameter adjusts the gain of the mid frequency band. Parameter range: -50 to +50.

**High Gain:** The High Gain parameter adjusts the gain of the high frequency band. Parameter range: -50 to +50.

## 4 Band Parametric EQ

The Parametric Equalizer is a four band stereo equalizer with individually adjustable center frequencies, bandwidths, and gains for each of the four bands.

### Parameters

**Band:** The Band parameter is used to select any one of the four bands. After a band has been selected the frequency, bandwidth, and gain setting may be made for that particular band.

**Frequency:** The Frequency parameter is used to select the center frequency point of each band.

**Bandwidth:** The Bandwidth parameter determines the width of the band from 1 octave to 1/100 of an octave.

**Gain:** The Gain parameter adjusts the gain of the band. Depending upon the particular setting,

the Gain can be used to emphasize (+ dB) or de-emphasize (-dB) the particular band. Ranges from -24 dB to +12 dB.

## Short Delay

A short mono delay effect can be used for extra delay or short echoes anywhere in the chain.

### Parameters

**Delay:** Up to 120ms of pure delay is available.

**Feedback:** Ranges 0% to 99%.

**Mix:** The mix parameter is used to control the direct/effect mix at the output of the effect block.

## Speaker Simulation

The Pro-Fex has four Mono speaker simulation curves:

**Scorpion Open:** Simulates the frequency response of Peavey's popular Scorpion speaker in an open backed cabinet.

**Scorpion Closed:** Simulates the frequency response of the Scorpion speaker in a closed backed cabinet.

**412 cabinet:** Simulates the sound of four 12" speakers in a single cabinet.

**British:** Simulates the frequency response of a well known British manufacturer's guitar speaker setup.

These speaker simulation curves are convenient for both live performance and recording applications where the guitar is directly connected to a mixing console.

## Hum Filter

The Hum Filter effect block is effective in removing the A.C. line noise which commonly occurs when using single coil pickups. Hum Filter is a mono effect.

### Parameter

**Frequency:** The Frequency parameter selects between 60 Hz (U.S.A.) and 50 Hz (European) A.C. line frequencies.

## Noise Gate

The Noise Gate effect block is quite essential when using high gain effects such as distortion, overdrive, and compression or to reduce guitar noise. The Noise Gate offers effective noise reduction by using a "downward expansion" technique. As the input signal level begins to drop off, the sensitivity gain rolls off. The net result of this is that the Noise Gate is virtually undetectable when set correctly. The Noise Gate effect block is a stereo effect block.

### Parameters

**Rate:** The rate parameter adjusts the speed at which the Noise Gate comes on. The range of the rate parameter is from 0 to 100. Zero is the fastest response time and 100 is the slowest response time.

**Sensitivity:** The Sensitivity parameter adjusts the threshold at which the Noise Gate comes on, and the rate at which the output gain drops once



the signal is below threshold. The range of this parameter is from 1 to 100. One is the lowest setting, and 100 is the highest setting. When set to 1 the threshold is so low that the Noise Gate is essentially turned off.

## PART 10. REINITIALIZATION

The Pro-Fex comes from the factory with all preset and program numbers mapped one-to-one and all the parameters set to create specific effects. All factory presets and program mapping may be restored as follows:

**\*CAUTION:** Reinitializing the Pro-Fex will replace all your changes with the factory settings. If you wish to keep any or all of your changes, either save them via System Exclusive Dump, or make notes of the specific changes.

1. Turn the Pro-Fex off.
2. While pressing and holding the Play (7) and MIDI (9) keys, turn the power switch on (19).
3. Release the two keys. The Pro-Fex is now reinitialized.

## PART 11. BYPASS

You may wish to bypass the Pro-Fex from time to time. This may be achieved by pressing the Bypass (14) key. The display will show:

\*\*\*\*\*BYPASSED\*\*\*\*\*

Presets may be edited while the Pro-Fex is bypassed, however none of the changes may be heard while in Bypass. Pressing any of the front panel keys will return the display to the mode it was in previous to being bypassed. If no keys are pressed for a period of 25 seconds, the "BYPASSED" display will reappear. BYPASS can be used for editing effects "off line."



PRESET 15

F Z → P y g m i e

PATH EFFECT  
PS

PARAMETERS

Values

→ EF

Pt	Ct	PD	Fb	Mx			
+12	0	0	0	69			

→ 3B

Sn	Fq	BW	Ty	Mx			
+100	3	7	LP	72			

→ E1

Lo	MFng	Mid	Hi				
15	820	-3	0				

→ NG

Fq	Chtr						
1	21						

Ra	Sn						
0	1						

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# PART 13. SPECIFICATIONS

## FREQUENCY RESPONSE

12 Hz to 16.4 kHz, -3 dB, +0

## TOTAL HARMONIC DISTORTION

Less than 0.06% at 1 kHz 1V RMS

## SIGNAL-TO-NOISE RATIO

Greater than 90 dB below rated output

## MAXIMUM OUTPUT LEVEL

4.5V RMS

## LINE/INSTRUMENT PAD

16 dB

## MAXIMUM INPUT GAIN

Inst: 32 dB

Line: 16 dB

## MINIMUM INPUT LEVEL FOR MAXIMUM OUTPUT (bypass)

Inst: 0.11V RMS

Line: 0.66V RMS

## MAXIMUM INPUT LEVEL

Inst: 1.38v RMS

Line: 8.50v RMS

## INPUT IMPEDANCE

95.6K ohms

## HEADPHONE OUTPUT

8 ohm stereo ¼ inch

## MIDI

In/out/thru

## REMOTE FOOTSWITCH

Special 2 switch momentary contact

## PRESETS/PROGRAMS

128 Presets mappable to 128 Programs

## DISPLAY

20 character by 2 line LCD Display

## SIMULTANIOUS EFFECTS

Up to 16 maximum

## EFFECT TYPES:

Compressor

Distortion

Overdrive

Chorus

Delay:

Stereo: 485ms per channel maximum

Tapped: 970ms per channel maximum

Mono: 970ms maximum

Auto Pan

Pitch Shift:

One octave up or down maximum

Reverb:

Room

Stage

Hall

Plate

Tunnel

Spring

Gated

Reverse Gated

Exciter 1

Exciter 2

Envelope Filter

Guitar Equalizer

5-band Graphic Equalizer

3-band Sweepable Mid Equalizer

4-band Parametric Equalizer

Hum Filter

Short Delay:

120ms maximum

Speaker Simulation:

Scorpion® Open Backed

Scorpion® Closed Backed

412 Cabinet

British

## DIMENSIONS

Width: 17.75 inches

Depth: 9.875 inches

Height: 1.75 inches

Weight: 9 lbs. 1 oz.

## POWER SUPPLY REQUIREMENTS

U.S.: 120 VAC, 60 Hz, 25 watts

EXPORT: 220/240 VAC, 50/60 Hz, 25 watts

### WARNING

EXPOSURE TO EXTREMELY HIGH NOISE LEVELS MAY CAUSE A PERMANENT HEARING LOSS. INDIVIDUALS VARY CONSIDERABLY IN SUSCEPTIBILITY TO NOISE INDUCED HEARING LOSS, BUT NEARLY EVERYONE WILL LOSE SOME HEARING IF EXPOSED TO SUFFICIENTLY INTENSE NOISE FOR A SUFFICIENT TIME.

THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED THE FOLLOWING PERMISSIBLE NOISE LEVEL EXPOSURES:

#### DURATION PER DAY IN HOURS

8  
6  
4  
3  
2  
1½  
1  
¾  
½ or less

#### SOUND LEVEL dBA, SLOW RESPONSE

90  
92  
95  
97  
100  
102  
105  
110  
115

ACCORDING TO OSHA, ANY EXPOSURE IN EXCESS OF THE ABOVE PERMISSIBLE LIMITS COULD RESULT IN SOME HEARING LOSS.

EAR PLUGS OR PROTECTORS IN THE EAR CANALS OR OVER THE EARS MUST BE WORN WHEN OPERATING THIS AMPLIFICATION SYSTEM IN ORDER TO PREVENT A PERMANENT HEARING LOSS IF EXPOSURE IS IN EXCESS OF THE LIMITS AS SET FORTH ABOVE. TO INSURE AGAINST POTENTIALLY DANGEROUS EXPOSURE TO HIGH SOUND PRESSURE LEVELS, IT IS RECOMMENDED THAT ALL PERSONS EXPOSED TO EQUIPMENT CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS SUCH AS THIS AMPLIFICATION SYSTEM BE PROTECTED BY HEARING PROTECTORS WHILE THIS UNIT IS IN OPERATION.

### CAUTION

THIS MIXING CONSOLE/EFFECTS DEVICE/PREAMP HAS BEEN DESIGNED AND CONSTRUCTED TO PROVIDE ADEQUATE SIGNAL (VOLTAGE) FOR PLAYING MODERN MUSIC. IMPROPER USE OF THE GAIN/EQUALIZER CONTROLS AND/OR IMPROPER USE OF INTERNAL/EXTERNAL BUSES MAY CREATE CLIPPING (SQUARE WAVES) AND POSSIBLY CAUSE SUBSEQUENT DAMAGE TO THE LOUDSPEAKER SYSTEMS. EXTENDED OPERATION OF THE GAIN/EQUALIZATION CONTROLS IN THEIR MAXIMUM POSITIONS IS THEREFORE NOT RECOMMENDED. PLEASE BE AWARE THAT MAXIMUM POWER CAN BE OBTAINED WITH VERY LOW SETTINGS OF THE GAIN/EQUALIZATION CONTROLS IF THE INPUT SIGNAL IS VERY STRONG.

IT IS COMMON PRACTICE AMONG USERS OF SOUND REINFORCEMENT EQUIPMENT TO IDENTIFY THE INDIVIDUAL CHANNELS WITH A STRIP OF TAPE PLACED ABOVE OR BELOW THE ROW OF VOLUME FADERS. MANY TYPES OR BRANDS OF TAPE HAVE A VERY STRONG ADHESIVE WHICH CAN INHIBIT THE PARTS ON THE FACELATE AND ACTUALLY REMOVE THE PAINT WHEN THE TAPE IS REMOVED. WE STRONGLY RECOMMEND THAT SCOTCH TAPE NOT BE USED ON PAINTED SURFACES NOR ANY OTHER TAPE THAT IS NOT ESPECIALLY DESIGNED FOR SUCH APPLICATIONS. MEDIUM OR LIGHT ADHESIVE MASKING OR LABEL TAPE IS RECOMMENDED IF TAPE IS USED. ANY TAPE LEFT ON PAINTED SURFACE FOR EXTENDED PERIODS WILL BE DIFFICULT TO REMOVE. NEVER USE CLEAR OR SCOTCH TAPE FOR THESE APPLICATIONS.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e. a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag, or an ammonia based household cleaner if necessary.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
  - A. The power supply cord or plug has been damaged.
  - B. Anything has fallen or been spilled into the unit.
  - C. The unit does not operate correctly.
  - D. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.

**PART 14**

Model: PRO-FEX

MIDI Implementation Chart

Date:10/90

Version:1.0

Function		Transmitted	Recognized	Remarks
Basic Channel	Default Channel	1-16	1-16	Memorized
Mode	Default Messages Altered	3 X X	1,3 X X	
Note Number	True Voice	X	X	
Velocity	Note ON Note OFF	X X	X X	
After Touch	Key's Ch's	X X	X X	
Pitch Bender		X	0	MIDI Dynamic Effects Controller
Control Change		X	0-120	MIDI Dynamic Effects Controller
Prog Change	True#	0-127	0-127	
System Exclusive		0	0	
System: Common	:Song Pos :Song Sel :Tune	X X X	X X X	
System Real Time	:Clock :Commands	X X	X X	
AUX Mes-sages	:Local ON/OFF :All Notes Off :Active Sense :Reset	X X X X	X X X X	
Notes				

Mode 1: OMNI ON, POLY  
Mode 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO  
Mode 3: OMNI OFF, MONO

**0**: Yes  
**X**: NO

**THIS LIMITED WARRANTY VALID ONLY WHEN PURCHASED AND REGISTERED IN THE UNITED STATES OR CANADA. ALL EXPORTED PRODUCTS ARE SUBJECT TO WARRANTY AND SERVICES TO BE SPECIFIED AND PROVIDED BY THE AUTHORIZED DISTRIBUTOR FOR EACH COUNTRY.**  
Ces clauses de garantie ne sont valables qu'aux Etats-Unis et au Canada. Dans tous les autres pays, les clauses de garantie et de maintenance sont fixées par le distributeur national et assurées par lui selon la législation en vigueur.  
Diese Garantie ist nur in den USA und Kanada gültig. Alle Export-Produkte sind der Garantie und dem Service des Importeurs des jeweiligen Landes unterworfen. Esta garantía es válida solamente cuando el producto es comprado en E.U. continentales o en Canada. Todos los productos que sean comprados en el extranjero, están sujetos a las garantías y servicio que cada distribuidor autorizado determine y ofrezca en los diferentes países.

**PEAVEY ONE-YEAR LIMITED WARRANTY/REMEDY**

PEAVEY ELECTRONICS CORPORATION ("PEAVEY") warrants this product, EXCEPT for covers, footswitches, patchcords, tubes and meters, to be free from defects in material and workmanship for a period of one (1) year from date of purchase, PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is subject to the conditions, exclusions, and limitations hereinafter set forth:

**PEAVEY 90-DAY LIMITED WARRANTY ON TUBES AND METERS**

If this product contains tubes or meters, Peavey warrants the tubes or meters contained in the product to be free from defects in material and workmanship for a period of ninety (90) days from date of purchase; PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is also subject to the conditions, exclusions, and limitations hereinafter set forth.

**CONDITIONS, EXCLUSIONS, AND LIMITATIONS OF LIMITED WARRANTIES**

These limited warranties shall be void and of no effect, if:

- a. The first purchase of the product is for the purpose of resale; or
- b. The original retail purchase is not made from an AUTHORIZED PEAVEY DEALER; or
- c. The product has been damaged by accident or unreasonable use, neglect, improper service or maintenance, or other causes not arising out of defects in material or workmanship; or
- d. The serial number affixed to the product is altered, defaced, or removed.

In the event of a defect in material and/or workmanship covered by this limited warranty, Peavey will:

- a. In the case of tubes or meters, replace the defective component without charge.
- b. In other covered cases (i.e., cases involving anything other than covers, footswitches, patchcords, tubes or meters), repair the defect in material or workmanship or replace the product, at Peavey's option; and provided, however, that, in any case, all costs of shipping, if necessary, are paid by you, the purchaser.

THE WARRANTY REGISTRATION CARD SHOULD BE ACCURATELY COMPLETED AND MAILED TO AND RECEIVED BY PEAVEY WITHIN FOURTEEN (14) DAYS FROM THE DATE OF YOUR PURCHASE.

In order to obtain service under these warranties, you must:

- a. Bring the defective item to any PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER and present therewith the ORIGINAL PROOF OF PURCHASE supplied to you by the AUTHORIZED PEAVEY DEALER in connection with your purchase from him of this product.  
If the DEALER or SERVICE CENTER is unable to provide the necessary warranty service you will be directed to the nearest other PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER which can provide such service.

**OR**

- b. Ship the defective item, prepaid, to:

PEAVEY ELECTRONICS CORPORATION  
International Service Center  
326 Hwy. 11 & 80 East  
MERIDIAN, MS 39301

including therewith a complete, detailed description of the problem, together with a legible copy of the original PROOF OF PURCHASE and a complete return address. Upon Peavey's receipt of these items:

If the defect is remedial under these limited warranties and the other terms and conditions expressed herein have been complied with, Peavey will provide the necessary warranty service to repair or replace the product and will return it, FREIGHT COLLECT, to you, the purchaser.

Peavey's liability to the purchaser for damages from any cause whatsoever and regardless of the form of action, including negligence, is limited to the actual damages up to the greater of \$500.00 or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. Such purchase price will be that in effect for the specific product when the cause of action arose. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. Peavey does not assume liability for personal injury or property damage arising out of or caused by a non-Peavey alteration or attachment, nor does Peavey assume any responsibility for damage to interconnected non-Peavey equipment that may result from the normal functioning and maintenance of the Peavey equipment.

UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, ANY INCIDENTAL DAMAGES, OR ANY CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THESE LIMITED WARRANTIES ARE IN LIEU OF ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE; PROVIDED, HOWEVER, THAT IF THE OTHER TERMS AND CONDITIONS NECESSARY TO THE EXISTENCE OF THE EXPRESSED, LIMITED WARRANTIES, AS HEREINABOVE STATED, HAVE BEEN COMPLIED WITH, IMPLIED WARRANTIES ARE NOT DISCLAIMED DURING THE APPLICABLE ONE-YEAR OR NINETY-DAY PERIOD FROM DATE OF PURCHASE OF THIS PRODUCT.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THESE LIMITED WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

THESE LIMITED WARRANTIES ARE THE ONLY EXPRESSED WARRANTIES ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY, OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY.

In the event of any modification or disclaimer of expressed or implied warranties, or any limitation of remedies, contained herein conflicts with applicable law, then such modification, disclaimer or limitation, as the case may be, shall be deemed to be modified to the extent necessary to comply with such law.

Your remedies for breach of these warranties are limited to those remedies provided herein and Peavey Electronics Corporation gives this limited warranty only with respect to equipment purchased in the United States of America.

**INSTRUCTIONS — WARRANTY REGISTRATION CARD**

1. Mail the completed WARRANTY REGISTRATION CARD to:

PEAVEY ELECTRONICS CORPORATION  
POST OFFICE BOX 2898  
MERIDIAN, MISSISSIPPI 39302-2898

- a. Keep the PROOF OF PURCHASE. In the event warranty service is required during the warranty period, you will need this document. There will be no identification card issued by Peavey Electronics Corporation.
2. IMPORTANCE OF WARRANTY REGISTRATION CARDS AND NOTIFICATION OF CHANGES OF ADDRESSES:
  - a. Completion and mailing of WARRANTY REGISTRATION CARDS — Should notification become necessary for any condition that may require correction, the REGISTRATION CARD will help ensure that you are contacted and properly notified.
  - b. Notice of address changes — If you move from the address shown on the WARRANTY REGISTRATION CARD, you should notify Peavey of the change of address so as to facilitate your receipt of any bulletins or other forms of notification which may become necessary in connection with any condition that may require dissemination of information or correction.
3. You may contact Peavey directly by telephoning (601) 483-5365.



Features and specifications subject to change without notice.

**Peavey Electronics Corporation** 711 A Street / Meridian, MS 39301 / U.S.A. / (601) 483-5365 / Fax 486-1278

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