DigiTech.
The Power to Create

OUT 2 (Mixer) **OUT 1 (Amp)**

DigiTech

Expression™ EX-7 Factory

Owner's Manual

Warning

For your protection, please read the following:

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Do not use this apparatus near water.
5. Clean only with dry cloth.
6. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
9. Unplug this apparatus during lightning storms or when unused for long periods of time.
10. No user serviceable parts inside. Refer all servicing 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.
11. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
12. Refer to labels on the unit, including bottom cover, or other markings and pertinent information.

Congratulations and special thanks from DigiTech® for choosing the Expression Factory™ Pedal.

When you want to express emotion with your guitar, two hands are great, but two hands and a foot are better. Years ago, pioneering musicians and engineers developed technology that let your foot alter and enhance your guitar's tone while your fingers are busy playing the notes. These pedals were so revolutionary, they've endured and evolved through the years: the wah pedal, the flanger, the rotary speaker, the pitch bender, the chorus, and the volume swell. These pedals placed guitarists' feet on the path to the future of modern music.

The DigiTech Expression Factory captures seven of the most versatile and dramatic pedal-controlled effects in guitar equipment history: the Vox® Clyde McCoy Wah™* and the Dunlop® Cry Baby™ Wah*, the Leslie® 147 Rotary Speaker*, the A/DA™ Flanger*, the Unicord Uni-Vibe™*, the DigiTech® XP300 Space Station™ Synth Swell™*, and the DigiTech Whammy®*. The Expression Factory lets you walk in the shoes of many mighty guitarists before you, who discovered that with one foot on the stage or the studio floor, and the other foot on an expression pedal, the journey through exciting and dramatic guitar tones will never end.

Included Items

The DigiTech® Expression Factory™ Pedal includes the following items:

- **DigiTech Expression Factory Pedal**
- **PS0913B Power Supply**
- **This Owner's Manual**
- **DigiTech Warranty Card**
- **DigiTech Brochure**

Please make sure that all of these items have been included before you get started.

Setup Directions

Follow these setup directions before use:

1. Turn the volume down on the amplifier/mixer you are connecting to.

2. Connect the pedal output to the amplifier/mixer input.

3. Connect the guitar to the pedal input.

4. Connect the power supply to the pedal.

5. Turn up your amplifier/mixer level to your desired listening level.

6. Turn on the Effect Model by pressing the **TOE SWITCH** (or turn on the Effect + Distortion Model by pressing the **HEEL SWITCH**).

The Expression Factory™ Features at a Glance

The Expression Factory™ has seven Effect Models that you can select (one at a time) and control with your foot by using the Expression Pedal. You can also modify each Effect Model's tone and behavior with three knobs.

The Expression Factory also has seven selectable Distortion Models that can only be used (one at a time) in conjunction with any Effect Model. You can modify each Distortion Model with three knobs.

The Expression Factory has six Cabinet Models (based on the cabinets of popular amplifiers) which are associated with the seven Distortion Models.

The Expression Factory can also be used as a volume pedal.

The Expression Factory™ outputs can be configured in one of four Output Modes:

1. Mono Mode – Outputs a mono signal through either the OUT 1 (AMP) jack or the OUT 2 (MIXER) jack.

2. Stereo Mixer Mode – Outputs a stereo signal through both the OUT 1 (AMP) and OUT 2 (MIXER) jacks, suitable for connecting to a mixer or recording device.

3. Stereo Amp Mode – Outputs a stereo signal through both the OUT 1 (AMP) and OUT 2 (MIXER) jacks, suitable for connecting to an amplifier.

4. Amp + Mixer Mode – Outputs a mono signal through the OUT 1 (AMP) jack suitable for connecting to an amplifier, and also outputs a mono signal through the OUT 2 (MIXER) jack, suitable for connecting to a mixer or recording device.

When the Expression Factory is shipped from the factory, the default modes are Mono Mode and Stereo Mixer Mode. Refer to the **Flexible Output Mode™ Setup** section of this manual for more information.
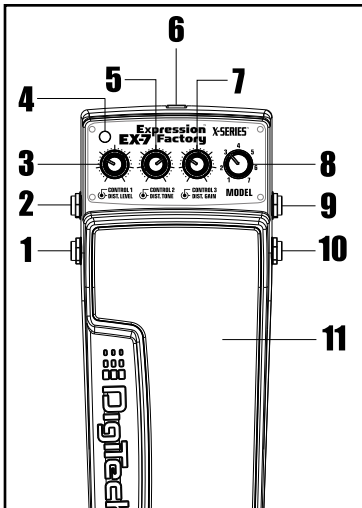
1. OUT 1 (AMP)*
Connect this output jack to your guitar amplifier. Refer to the **Flexible Output Mode™ Setup** section for more information.

2. OUT 2 (MIXER)*
This output has been specifically tailored for use with a full range audio system and is designed to be plugged directly into a mixer or recording device for optimal performance. Refer to the **Flexible Output Mode Setup** section for more information.

3. (Tip) - CONTROL 1
Model dependent. Refer to the **Effect Model Control** table for more information.

(Ring) - DIST LEVEL
Controls distortion level.

* Use only unbalanced TS instrument cables.

4. INDICATOR LED
This LED indicates the status of the selected Model or the current Mode: OFF=bypass, GREEN=Effect Model on, RED=Effect Model and Distortion Model on, FLASHING YELLOW=Distoriton Model Select mode.

5. (Tip) - CONTROL 2
Model dependent. Refer to the **Effect Model Control** table for more information.

(Ring) - DIST TONE
Controls distortion tone.

6. POWER SUPPLY JACK
Connect only the included PS0913B (9V AC) power supply to this jack. Note that the Expression Factory™ is not equipped for battery power.

7. (Tip) - CONTROL 3
Model dependent. Refer to the **Effect Model Control** table for more information.

(Ring) - DIST GAIN
Controls distortion gain.

8. MODEL
This knob selects one of the seven different Effect Models:

1. Dunlop® Cry Baby™ Wah
2. Vintage Vox® Clyde McCoy™ Wah
3. DigiTech® XP300 Space Station™ Synth Swell™
4. DigiTech Whammy®
5. Unicord Uni-Vibe™
6. Leslie® 147 Rotary Speaker
7. A/DA™ Flanger

Refer to the **Model Descriptions** section for detailed explanations of each model's controls.

9. INPUT
Connect your instrument to this jack.

10. FOOTSWITCH
Plug in the optional FS3X footswitch here. Refer to the **Using the Optional FS3X Footswitch** section to see what the FS3X can do with the Expression Factory™.

11. EXPRESSION PEDAL
Serves as a variable control for each of the Effect Models. Also used for engaging the **HEEL** and **TOE SWITCHES**, which enable the selected Effect Models and Distortion Models. (Refer to the **Effect Model Control** table for more information about the **EXPRESSION PEDAL**.)

To enable the **HEEL** or **TOE SWITCHES**, press firmly on the heel or toe of the **EXPRESSION PEDAL**. The **INDICATOR LED** will change color when the **HEEL** or **TOE SWITCH** is engaged.

If the **EXPRESSION PEDAL**'s range becomes diminished over time, it may be necessary to re-calibrate the pedal. Refer to the **Calibrating the Expression Pedal** section for more information.

Selecting and Enabling an Effect Model

1. Use the **MODEL KNOB** to select an Effect Model. (Refer to the **Effect Model Control** table for a list of Effect Models.)

2. Rock the pedal forward and press firmly on the **TOE SWITCH**. The **INDICATOR LED** lights green to show that the Effect Model is enabled.

3. To bypass the Effect Model, rock the pedal forward and press firmly on the **TOE SWITCH**. The **INDICATOR LED** turns off to show that the Effect Model is bypassed.

MODEL DESCRIPTIONS

MODEL 1. Dunlop® Cry Baby™

As the Wah pedal increased in popularity, slight changes were made to the original design. One of the most popular versions of the Wah pedal was (and is) the Dunlop® Cry Baby™. By using an Italian-made Fasel inductor (and making some other design alterations), the Dunlop Cry Baby creates a slightly thicker tone that is reminiscent of guitar legends of the late 60s and early 70s.

Control 1 (tip): Frequency Range – Changes the high and low frequency centers of the Wah sweep.

Control 2 (tip): Q (Shape) – Changes the bandwidth of the frequency centers. Lower settings produce a mild Wah effect, higher settings produce extreme Wah filtering.

Control 3 (tip): Volume – Boosts or cuts the output level when the Wah is enabled.

Expression Pedal – Controls the Wah effect.

MODEL 2. Vox® Clyde McCoy™ Wah

In 1966, an L.A. session guitarist and a Vox® electrical engineer tinkered around with an amp's tone circuit and created an archetype of electric guitar tone: the original Clyde McCoy™ Wah pedal. Though it was designed for the guitar, Vox initially thought they'd sell more to trumpet players; that's why trumpet player Clyde McCoy's name graces the pedal to this day. Few horn players use the pedal today, but countless guitarists know the unmistakable tone and range acheived by this pedal, thanks to its active circuit and dinstinctive high peak.

Control 1 (tip): Frequency Range – Changes the high and low frequency centers off the Wah sweep.

Control 2 (tip): Q (Shape) – Changes the bandwidth of the frequency centers. Lower settings produce a mild Wah effect, higher settings produce extreme Wah filtering.

Control 3 (tip): Volume – Boosts or cuts the output level when the Wah is enabled.

Expression Pedal – Controls the Wah effect.

MODEL 3. DigiTech® XP300 Space Station™ Synth Swell™

This model recreates the most popular tone on a rare and hard-to-find pedal. The DigiTech® XP300 Space Station™ Synth Swell™ packs an entire outer-space string orchestra into your guitar, and lets you create other-worldly effects and flourishes which you can control with the Expression Pedal.

Control 1 (tip): Pitch Shift – Selects one of the seven different pitch shift intervals for the swell effect. (See diagram.)

Control 2 (tip): Chorus/Pitch Balance – Balances the pitch and chorus effects. Minimum position has chorus and no pitch shift; maximum position has pitch shift and no chorus.

Control 3 (tip): Swell Attack Time – Adjusts the volume attack time. When in the minimum position, Autoswell attack is off (swell is controlled via the Expression Pedal). The maximum position has over 3 seconds of volume attack.

Expression Pedal – Controls the input level (volume swell).


Pitch Shift Interval Positions
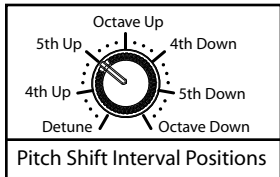
MODEL 4. DigiTech Whammy®

Model 4 captures the unmistakable sound of DigiTech®'s legendary pitch-bender, the Whammy®. You can now command smooth pitch bends, rich detuning, accurate dive bombs, and fast-tracking harmony shifts, just like the original.

Control 1 (tip): Whammy Amount – Adjusts the Whammy pitch interval. (See diagram.)

Whammy Amount Interval Positions
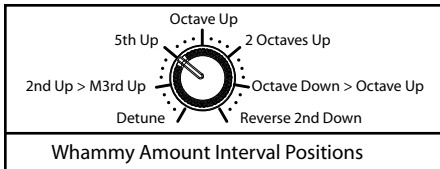
Control 2 (tip): Tone – Adjusts the overall tone of the Whammy effect. Lower settings decrease high frequencies; higher settings increase high frequencies.

Control 3 (tip): Wet/Dry Mix – Controls the dry level and effect level mix.

Expression Pedal – Controls the Whammy pitch shift.

MODEL 5. Unicord Uni-Vibe™

This is the one that set the standard for all chorus pedals. The lush Uni-cord Uni-Vibe™ chorus effect adds depth and dimension to your music that is both subtle and spectacular. No wonder the Unicord Uni-Vibe was the choice of so many guitar greats when it was created in the late 60s. True to the original, this model also offers a vibrato option.

Control 1 (tip): Chorus/Vibrato – Selects either the chorus or the vibrato effect. Turn the knob all the way to the left to select chorus, or all the way to the right to select vibrato.

Control 2 (tip): Intensity – Adjusts the amount of the effect.

Control 3 (tip): Volume – Controls the output level of the effect.

Expression Pedal – Controls the modulation speed. Rocking the pedal all the way back (toe up) bypasses the effect just like the original pedal.

MODEL 6. Leslie® 147 Rotary Speaker

Long prized by organ players for their rich sound and spine-chilling effects, rotating Leslie® speakers caught guitarists' attention after being masterfully applied by experimenting vocalists and guitar virtuosos in the mid and late 60s. Many stompboxes simulate a rotating speaker effect, but Model 6 approximates the sound of the Leslie 147 rotary speaker specifically, with all its subtle nuances and characteristics.

Control 1 (tip): Drive – Controls the preamp drive/distortion of the pedal.

Control 2 (tip): Minimum Speed – Controls the minimum speed reached when the pedal is rocked back (toe up).

Control 3 (tip): Volume – Controls the output level of the Leslie effect.

Expression Pedal – Controls the rotary speaker speed.

MODEL 7. A/DA™ Flanger

Model 7 recreates the granddaddy of all flangers: the A/DA™ Flanger. This stompbox set the stage for all flangers that followed in its footsteps. Afficionados recognize its dramatic jet-engine flyby sweep and appreciate its utter lack of background noise.

Control 1 (tip): Range – Controls the amount of delay time variation from the Speed control. When Range is set to its minimum position, the Speed control has no effect on the delay time. When Range is set to its maximum position, the Speed control sweeps the entire delay time and the Expression pedal is effectively disabled.

Control 2 (tip): Speed – Controls the LFO speed of the flanger effect based on the Range setting. When Range is set to its minimum position, the Speed control is effectively disabled and the flange sweep is controlled by the Expression Pedal.

Control 3 (tip): Enhance – Controls the amount of feedback in the flanger effect. Higher settings produce more dramatic comb filtering.

Expression Pedal – Manually controls the sweep of the flanger effect. The Expression Pedal acts like the Manual knob on the original pedal.

Effect Model Control Table

	Effect Model	Expression Pedal	Control 1	Control 2	Control 3
1	Dunlop® Cry Baby™	Wah	Frequency Range	Q (shape)	Volume
2	Vox® Clyde McCoy Wah™	Wah	Frequency Range	Q (shape)	Volume
3	DigiTech® XP300 Space Station™ Synth Swell™	Volume	Pitch Shift	Chorus/Pitch Balance	Swell Attack Time
4	DigiTech Whammy®	Pitch Shift	Whammy Shift	Tone	Wet/Dry Mix
5	Unicord Uni-Vibe™	Speed	Chorus/Vibrato	Intensity	Volume
6	Leslie® 147 Rotary Speaker	Speed	Drive	Minimum Speed	Volume
7	A/DA™ Flanger	Effect Sweep*	Range	Speed	Enhance

* Volume Pedal Function
When Model 7 is selected and bypassed, the Expression Pedal behaves as a volume pedal. This volume pedal control is disabled when either the Effect Model or the Effect + Distortion Model is enabled in Model 7.

Settings to Get You Going

To recreate each Effect Model's original tone and behavior, set Control Knobs 1-3 to the 12 o'clock position. And here are a few famous and familiar settings to get you started.

Cry Baby® – This setup models the stock Cry Baby® wah tone favored by giants like Page, Slash, and Hammett. Adjust the Frequency (Control 1) and Q (Control 2) settings for a custom Wah.

Vox® **Wah** – Set the Control knobs in this fashion to make the Wah pedal behave like a tone control on your guitar. Or set the Control knobs to 12 o'clock to recreate Jimi Hendrix's and Stevie Ray Vaughan's favorite Wah.

XP300 – This setup gives you an octave synth swell effect very similar to what you hear in Audioslave's "I Am The Highway."

Whammy™ – This setup models the octave Whammy™ shifting made famous by Rage Against the Machine. Set the Wet/Dry Mix (Control 3) knob to 12 o'clock to create harmony shifting.

Uni-Vibe™ – Setting the knobs to this position and rocking the Expression Pedal just off of the heel gets that great Gilmour "Breathe" tone. Kick in the Big Muff® model and rock the pedal forward a bit for the Woodstock national anthem sound.

Leslie® – Set the knobs in this position to give you a great rotary speaker tone. This effect added a subtle aura of mystery to the intro to "Hotel California" and the guitar solo in "Let It Be."

Flanger – For that classic jet flange sound, set the knobs to this position. The setting may remind you of the unmistakable intro to Van Halen's "Unchained."

Selecting and Activating a Distortion Model + Effect Model

The Expression Factory™ has seven Distortion Models that can be selected using the **MODEL** knob. This is done by accessing the Distortion Model Select mode. Once this mode is accessed, the **MODEL** knob selects a Distortion Model while the rest of the knobs maintain their labeled functions. To enter Distortion Model Select mode, follow these steps:

1. Rock the **EXPRESSION PEDAL** forward and then press and hold the **TOE SWITCH** for three seconds until the **INDICATOR LED** begins flashing yellow. If the distortion was already active, it will turn off first, and then turn back on once Distortion Model Select mode is active.

2. Once the **INDICATOR LED** begins flashing yellow, use the **MODEL** knob to select between the different Distortion Models. The Effect Model that was selected prior to entering Distortion Model Select mode remains active and does not change as the **MODEL** knob selects

the different Distortion Models. This lets you audition different Distortion Models with the current Effect Model. Use the three ring knobs labeled **DIST LEVEL**, **DIST TONE**, and **DIST GAIN** to adjust the distortion settings.

3. Once a distortion model has been selected, you can exit Distortion Model Select mode by pressing the **TOE SWITCH** again. The Expression Factory will then return to normal operation with both the effect and distortion bypassed. (The **MODEL** knob now might be on a different Effect Model than before it was entered; if so, just turn it back to the desired Effect Model and press the **TOE SWITCH** to activate it.)

NOTE: Once Distortion Model Select mode has been exited, the Distortion Model that was selected will be saved off with the Effect Model that was active when the distortion was selected. This lets you select and save a specific or different Distortion Model to use with each Effect Model.

For a list of Distortion Models, refer to the **Distortion and Cabinet Models** section.

Distortion and Cabinet Models

Each Distortion Model also has CIT™ cabinet modeling associated with it when using the Out 2 (Mixer) output or when the pedal is in Stereo Mixer mode (see Flexible Output Mode)*. Here is a list of the cabinet models for each distortion:

	Distortion Model	Cabinet Model
1	Ibanez® TS-9	Fender® '65 Deluxe Reverb® 1x12
2	DOD® Overdrive/preamp 250	Marshall® 4x12 w/Celestion® GT-75s
3	Boss® DS -1™	Johnson Amplification™ 4x12 w/Celestion V30s
4	ProCo Rat™	Fender Bassman® Blonde 2x12
5	Boss® Metal Zone®	Johnson Amplification 4x12 w/Celestion V30s
6	DigiTech® Metal Master™	VHT Amplification™ 4x12 w/Celestion V30s
7	EH® Big Muff® Pi	Marshall 4x12 w/Celestion 25W Greenbacks

* Model 6 already emulates a Leslie® speaker cabinet, so no Cabinet Model is applied to the Distortion Model in any output mode.

Flexible Output Mode™
The Expression Factory™ has four Flexible Output Modes: Mono, Stereo Mixer, Stereo Amp, and Amp/Mixer. These modes let you send a mono signal to an amp or a mixer, or a stereo signal to two amps or two channels of a mixer, or a mono signal to an amp and a mixer simultaneously.

Mode 1 (MONO) is automatically selected when only one cable is plugged into either the OUT 1 (AMP) or OUT 2 (MIXER) output. Mode 2 (STEREO MIXER), Mode 3 (STEREO AMP), and Mode 4 (AMP/MIXER) are enabled when two cables are plugged into both the OUT 1 (AMP) and OUT 2 (MIXER) outputs. Mode 2 (STEREO MIXER) is the factory default stereo output mode. Mode 3 (STEREO AMP) and Mode 4 (AMP/MIXER) can be enabled using the Flexible Output Mode Setup (Modes 2-4 are all selected using the Flexible Output Mode Setup).

Connections Diagram - Flexible Output Mode 1 (Mono)
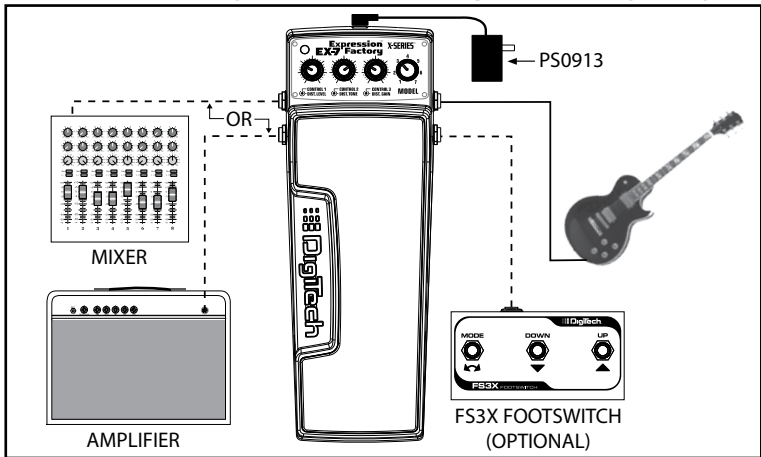
PS0913

MIXER

OR

AMPLIFIER

MODE   DOWN   UP

FS3X FOOTSWITCH
(OPTIONAL)

Connections Diagram - Flexible Output Mode 2 (Stereo Mixer)

MIXER

PS0913

FS3X FOOTSWITCH
(OPTIONAL)
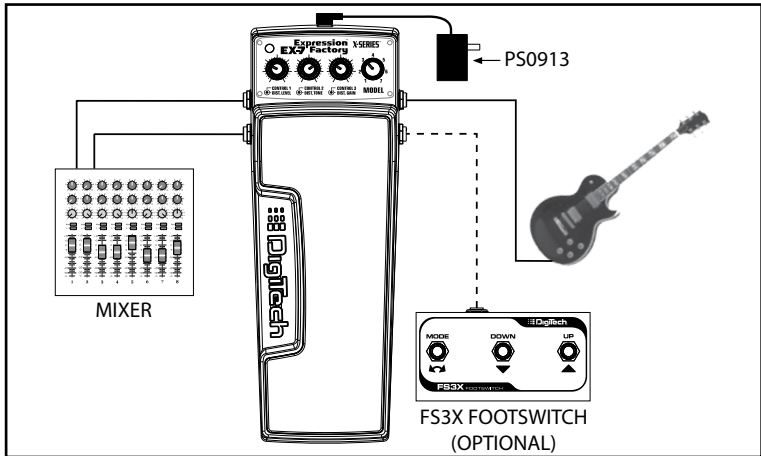
Connections Diagram - Flexible Output Mode 3 (Stereo Amp)

PS0913

AMPLIFIER

AMPLIFIER

FS3X FOOTSWITCH (OPTIONAL)
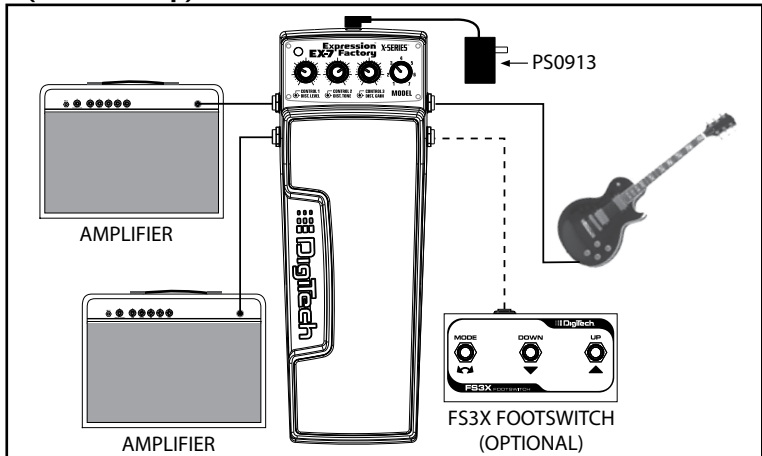
Connections Diagram - Flexible Output Mode 4 (Amp + Mixer)

PS0913

AND

MIXER

AMPLIFIER

FS3X FOOTSWITCH
(OPTIONAL)
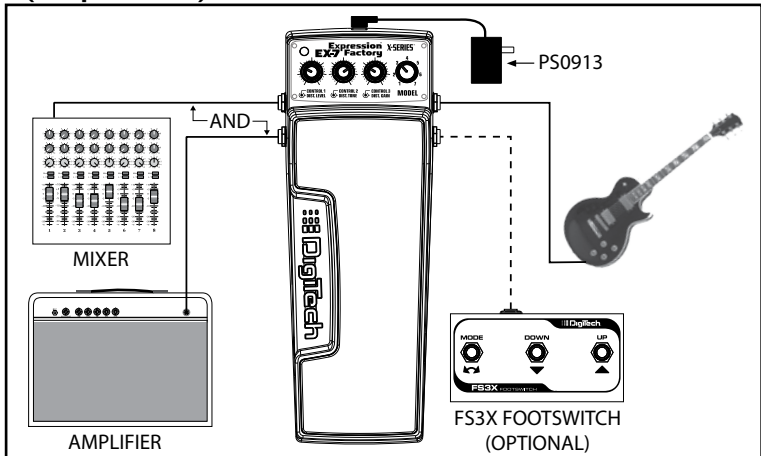
Flexible Output Mode™ Setup

1. Power up the Expression Factory™ Pedal.
2. Select Model 7 using the **MODEL** knob.
3. Press and hold the **HEEL SWITCH** for three seconds. The **INDICATOR LED** begins to flash green.
4. Release the **HEEL SWITCH**.
5. Turn the **MODEL** knob to Model 5 if you want to use AMP/MIXER mode (which lets you plug into both an amplifier and a mixer simultaneously).
   Turn the **MODEL** knob to Model 6 to select STEREO AMP mode.
   Leave the **MODEL** knob at Model 7 to keep the factory default STEREO MIXER mode selected.
6. Press the **TOE SWITCH** to exit Flexible Output Mode Setup; the **INDICATOR LED** turns off and the pedal is bypassed.

NOTE: Selecting any other Models besides 5, 6, or 7 will prevent you from exiting Flexible Output Mode Setup.

Calibrating the Expression Pedal

If the Expression Pedal's range becomes diminished over time, it may be necessary to re-calibrate the pedal. Here is the procedure for calibration:

1. Begin with the power disconnected from the Expression Factory™.
2. Select Model 1 using the **MODEL** knob.
3. Insert a standard mono (TS) guitar cable into the **FOOTSWITCH** jack.
4. Connect the power supply to the Expression Factory. The **INDICA-TOR LED** begins flashing green.
5. Rock the **EXPRESSION PEDAL** forward (toe down).
6. Select Model 2 using the **MODEL** knob. The **INDICATOR LED** begins flashing yellow.
7. Rock the **EXPRESSION PEDAL** back (toe up).
8. Select Model 3 using the **MODEL** knob. The **INDICATOR LED** should flash green three times if calibration was successful.

If the calibration procedure fails, the **INDICATOR LED** will flash red instead of green during step 8 and the unit will not return to normal operation until the Expression Pedal has been properly calibrated. Select Model 1 using the **MODEL** knob at this time and repeat steps 5-8 until Expression Pedal calibration is successful.

Using the Optional FS3X Footswitch
The Expression Factory™ accommodates the optional FS3X 3-button footswitch.

When an Effect Model or an Effect + Distortion Model is enabled, the **MODE** footswitch toggles between Effect Model only (green LED) and Effect + Distortion Model (red LED), until either the Expression Factory's **TOE SWITCH** (Effect Model) or **HEEL SWITCH** (Effect Model + Distortion Model) has been pressed to put the Expression Factory into bypass.

The **DOWN** footswitch selects the next model down. Pressing and holding the **DOWN** footswitch for three seconds selects Model 1.

The **UP** footswitch selects the next model up. Pressing and holding the **UP** footswitch for three seconds selects Model 7.

NOTE: Use only the stereo TRS cable that ships with the FS3X Footswitch to connect the Footswitch to the Expression Factory.

FS3X Footswitch (Optional)

MODE
Toggles between Effect Model only (green LED) and Effect + Distortion Model (red LED).

DOWN
Selects the next lower Model. Hold for three seconds to select MODEL 1.
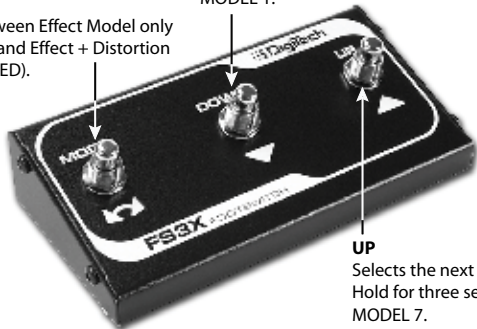
UP
Selects the next higher Model. Hold for three seconds to select MODEL 7.

Specifications:

- Controls – CONTROL 1/DIST LEVEL, CONTROL 2/DIST TONE, CONTROL 3/DIST GAIN, MODEL
- Jacks – INPUT, FOOTSWITCH, OUT 1 (AMP), OUT 2 (MIXER)
- Input Impedance – 1M Ohms
- Output Impedance – 200 Ohms
- Power Consumption – 4.5 Watts
- Dimensions – 10.14"(L) x 3.84"(W) x 2.47"(H)
- Weight – 3.38 lbs.
- Included Power Supply (one of the following):

  PS0913B – 100 (100V ~ 50/60Hz)
  PS0913B – 120 (120V ~ 60Hz)
  PS0913B – 230 (230V ~ 50Hz)
  PS0913B – 240 (240V ~ 60Hz)

DigiTech®
8760 South Sandy Parkway
Sandy, Utah 84070
PH (801) 566-8800
FAX (801) 566-7005
www.digitech.com
Manufactured in the U.S.A.

H A Harman International Company