

# Fender® FUSE™ 2.0



**Fender® FUSE™ Compatible Products in this manual:**

***MUSTANG™ III / IV / V***

***EXP-1  
EXPRESSION  
PEDAL***

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## Getting Started!

### Introduction

This manual is your step-by-step guide to using Fender® FUSE™ software. Fender FUSE allows you to control your Mustang™ from your computer and to perform many functions beyond what the amplifier provides on its own. Fender FUSE is a preset editor, a librarian for your media files, and your connection to the Fender® FUSE™ Online Community. **System requirements:** To run Fender FUSE, you must have a PC computer running Windows Vista® operating system or above, or a Macintosh computer with Intel® processors running OS X version 10.6 (Snow Leopard) or above.

### Installing Fender® FUSE™

To install Fender FUSE on your computer please download the current version of the Setup file from <http://fuse.fender.com>.

#### To install Fender FUSE:

1. Double-click on the Fender FUSE Setup.exe file (for PC) or the FUSE Installer.dmg (for Mac), then follow the instructions on screen.
2. If any permission windows pop up during the Fender FUSE installation process, always allow installation by clicking on "OK" or "NEXT."

## Firmware Update

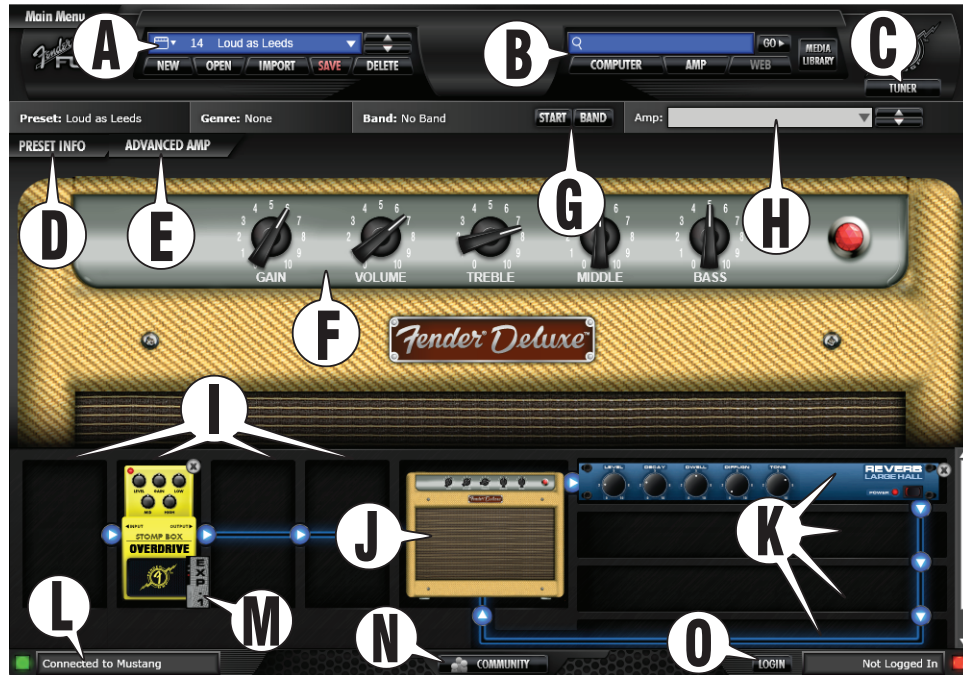
Your Mustang may need a firmware update to operate properly with Fender FUSE.

#### To update Mustang Firmware:

1. Connect your Mustang to your computer's USB port and open the Fender FUSE software.
2. Turn the unit off.
3. Press and hold the DATA WHEEL on the unit while turning the power switch back on. Continue holding the DATA WHEEL until the SAVE button starts to blink **red**.
4. The Firmware Update Instructions will open automatically and give you two options. Select the "Bundled Update" option unless you have downloaded a newer firmware update from one of the following links, according to product:
  - **Mustang III/IV/V:** [www.fender.com/support/articles/updating-firmware-on-fender-mustang-i-v-amplifiers/](http://www.fender.com/support/articles/updating-firmware-on-fender-mustang-i-v-amplifiers/)
  - **Mustang III/IV/V (V.2):** [www.fender.com/support/articles/updating-firmware-on-fender-mustang-i-v-v2-amplifiers/](http://www.fender.com/support/articles/updating-firmware-on-fender-mustang-i-v-v2-amplifiers/)
5. Turn the amplifier off and then back on again to finalize the firmware update.

# Preset Editor

This is the first screen that you will see when you start up Fender® FUSE™. When your Mustang is connected to your computer via USB cable, the Fender FUSE screen will mirror what the Mustang is doing and vice-versa: Adjust any preset programmable parameter on your amp and you can watch it change in Fender FUSE. When you click and drag any knob in Fender FUSE it immediately adjusts the corresponding parameter on your amplifier!



- A. PRESET CONTROL PANEL** — Click on the right side of this drop down menu to select a preset, or use the up/down arrows to scroll through presets. Click on the left side of the drop down menu to choose between amp or computer presets. The five buttons below this menu box allow you to: (NEW) create a new preset from scratch, (OPEN) open a preset on your computer, (IMPORT) import one or more components of a different preset into the current preset (Amp/FX/Band settings), (SAVE) save a preset or (DELETE) delete a preset.
- B. SEARCH PANEL** — This window allows you to search for presets and audio files in the location(s) selected with the buttons below the search box (COMPUTER, AMP, WEB). Search results are displayed via the Media Library which can also be accessed quickly by clicking the Media Library button.
- C. TUNER** — The Fender FUSE tuner provides the standard tuning functions of a studio rack-mounted guitar tuner.
- D. PRESET INFO** — Click to edit preset information (see page 7).
- E. ADVANCED AMP** — Click to open up the advanced amp settings window (see page 6).
- F. AMP CONTROLS** — Click and drag any of these knobs to adjust the amplifier's settings for the current preset. Any "grayed-out" knobs are controls that have not been activated yet.
- G. START / BAND** — Click START to play the selected band track. Click BAND to select a band track and edit band track settings (see page 8).
- H. AMPLIFIER** — Click on this drop down menu to select an amplifier type or use the up/down arrows to scroll through amp types.
- I. EFFECT FOOTPEDALS** — Click on any of these four slots to add an effects footpedal and to edit effect settings (see page 4).
- J. AMP ICON** — Click on this icon to return to editing amp knob settings after adjusting effect settings.
- K. RACK EFFECTS** — Click on any of these four slots to add a rack mounted effect and edit effect settings (see page 5).
- L. AMP CONNECTED** — Indicates when your amp is connected.
- M. EXP-1 PEDAL (Optional equipment)** — An EXP-1 pedal icon will appear next to the item to which it is currently assigned (see page 12).
- N. COMMUNITY** — Click to open the Fender® FUSE™ Online Community website (see page 11).
- O. LOGIN** — Click to login to the Fender® FUSE™ Online Community website (see page 11).

# Pedal Effects


Click on any of the four slots {A} to the left of the amplifier icon to select an effect and open the Pedal Effects edit screen. These effects are located *before* the amp model in the signal path to provide a sound similar to effects that are connected inline with your guitar cord before the input of the amplifier.

Fender® FUSE™ gives you access to effects combinations beyond what the Mustang provides on its own. For example, you can put an echo pedal before the amp, which could be just the thing for a rockabilly tone. Modulation effects like flangers and phasers sound very different in front of the amp. **NOTE:** You can also change the order of effects (which affects their sound) by dragging the effect icons to different slots {A}.



**B. EFFECT PEDAL SELECTOR** — Click on the drop down menu to select an effect, or use the up/down arrows to scroll through effects in the currently selected effect category {A}. Effects are separated into four categories: **Stompbox**, **Modulation**, **Delay** and **Reverb**.

**C. EFFECT SETTINGS** — Click and drag any of these knobs to adjust the effect pedal settings. The precise level of each setting will be displayed under the Effect Pedal Selector {B} window.

 You can also adjust the knobs on the smaller version of the effect pedal icon, which is convenient when you are in the Preset Editor window.

**D. PEDAL COLOR** — Click on any of these color swatches to change the color of the effect pedal. Color changes are for your preference only and do not change the sound of the effects.

**E. DELETE** — Click on the "X" to remove the effect from the current preset.

**F. BYPASS** — Click on the footpedal switch to turn the effect on-off (bypass). The red light in the upper left corner indicates when the effect is on or off.



You can also click the on-off footpedal switch on the smaller version of the effect pedal icon.

## Exclusive Features Accessible with Fender FUSE Software:

- EFFECTS POSITION Pre- or Post-Amp
- EFFECTS BYPASS
- DETAILED EFFECTS EDITING

Fender® FUSE™ adds functionality beyond what your amplifier provides on its own. You can position effects before or after the amplifier in the signal path for a variety of sonic options. Fender FUSE allows you to bypass an effect temporarily rather than deleting it and losing all your effect settings each time you want to turn an effect on-off.




# Rack Effects


Click on any of the four slots {A} to the right of the amplifier icon to select an effect and open the Rack Effects edit screen. These effects are located *after* the amp model in the signal path to provide a sound similar to effects that are connected through the effects loop of an amplifier, or added at the recording console. **NOTE:** You can also change the order of effects (which affects their sound) by dragging the effect icons to different slots {A}.



**B. RACK EFFECT SELECTOR** — Click on the drop down menu to select an effect, or use the up/down arrows to scroll through effects in the currently selected effect category {A}. Effects are separated into four categories: **Post Gain, Modulation, Delay and Reverb.**


 You can have a total of up to four effects active at any time, but you can have only one of each "category" active at a time. For example, you can have a reverb effect either before or after the amplifier, but not both.

**C. EFFECT SETTINGS** — Click and drag any of these knobs to adjust the rack effect settings. The precise level of each setting will be displayed under the Rack Effect Selector {B} window.

 You can also adjust the knobs on the smaller version of the rack effect icon below, which is convenient when you are in the Preset Editor window.

**D. DELETE** — Click on the "X" to remove the effect from the current preset.

**E. BYPASS** — Click on the on-off switch to turn the effect on-off (bypass). The red light next to the switch indicates when the effect is on or off.

 You can also click the on-off switch on the smaller version of the rack effect icon below.

# Advanced Amplifier Settings

Click on the "ADVANCED" amplifier button {A} to open the advanced amplifier settings screen. The controls that appear will vary depending on the amplifier type {B} that is currently selected and the Mustang model of product connected to your computer.



**B. AMPLIFIER TYPE** — Click on the drop down menu to select an amplifier type, or use the up/down arrows to scroll through amp types.

**C. TONE CONTROLS** — Click and drag any of these knobs to adjust the amplifier's gain and tone settings.



*You can also adjust the knobs on the smaller version of the amp icon below, which is convenient when you are in the Effects Editor window.*

**D. ADVANCED CONTROL PANEL** — The advanced amplifier control panel allows you to tweak your amplifier beyond the basic tone controls.



*Adjustments that you make in the advanced amplifier control panel will remain with the preset when you disconnect the amp from Fender® FUSE™, but you won't be able to make further adjustments to those parameters without connecting to Fender FUSE again.*

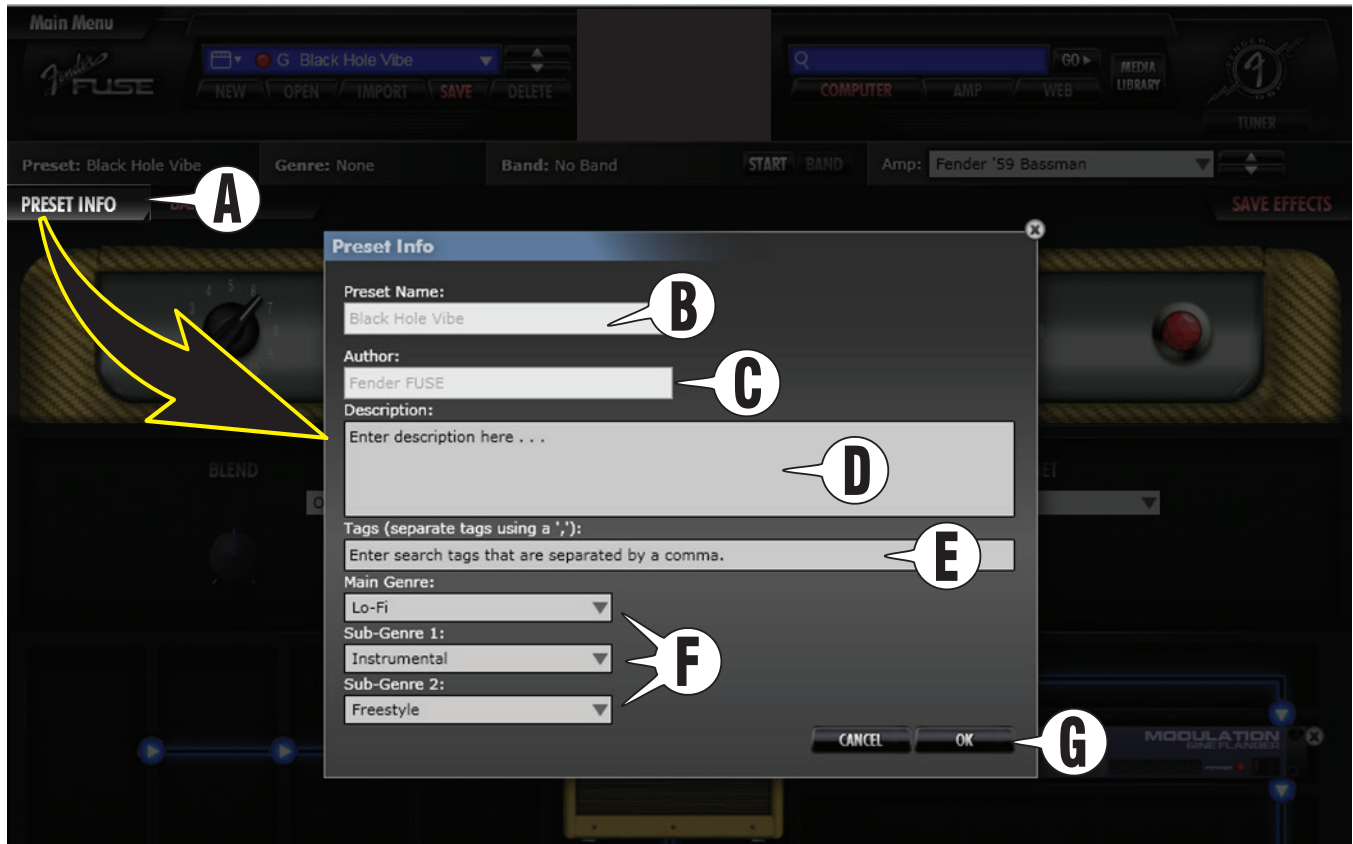
## Exclusive Features Accessible with Fender FUSE Software:

- NOISE GATE Custom Parameters
- USB GAIN

These Fender® FUSE™ features add functionality beyond what your amplifier provides on its own.

# Preset Info Screen

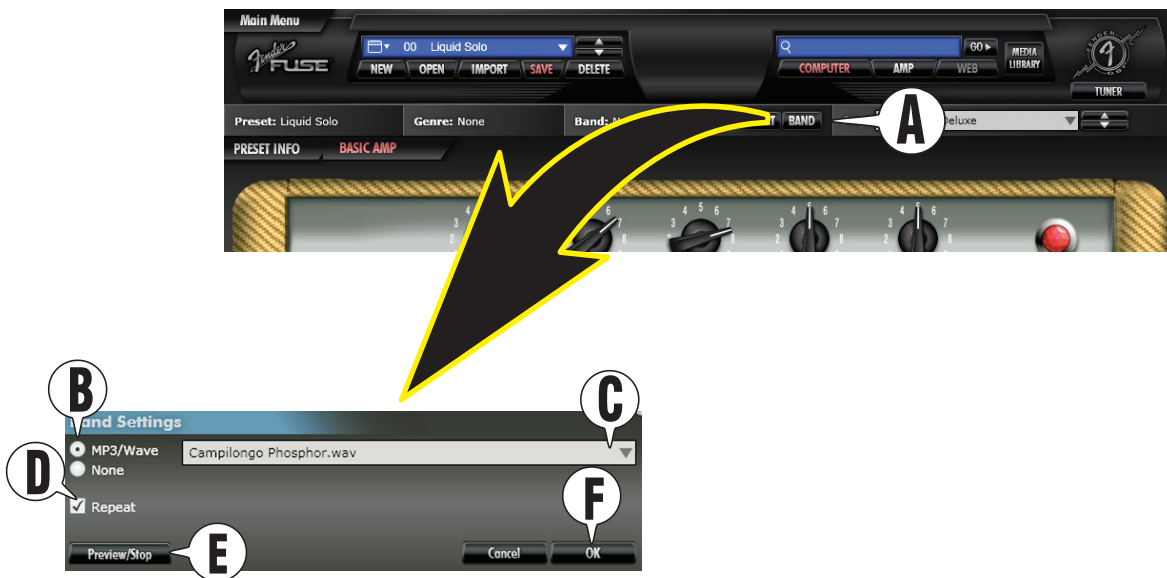
Click on the "PRESET INFO" button (A) to open the Preset Information window. This window allows you to edit an extensive list of preset information to enable more useful search functions and easier preset identification. The information you enter will be visible to members of the Fender® FUSE™ Online Community should you choose to upload your presets and share them with the community.



- B. PRESET NAME** — The name of the currently active preset on the amplifier will appear here.
- C. AUTHOR** — The creator of the current preset will appear here.
- D. DESCRIPTION** — Enter a description for the currently active preset on the amplifier to reference what the preset can be used for. Example: *I use this preset for the opening of "Cliffs of Dover" by Eric Johnson with delay effects.*
- E. TAGS** — Enter descriptive tags (terms) separated by commas for the currently active preset on the amplifier. These are quick keywords to aid in searching for presets in the Media Library. From the example above, you might enter the following tags: *"Eric Johnson, Cliffs, delay."*
- F. GENRES** — Enter the main genre (music category) and as many as two sub genres for the currently active preset on the amplifier.
- G. OK** — Click OK to save all your entries for the currently active preset on the amplifier.

# Band Track Screens

Click on the "BAND" button {A} to select a Band track and adjust Band settings. Although you cannot store Band tracks on the Mustang™, you can play songs on your computer through Fender® FUSE™ and save the associated track as part of a preset.



**B. MP3 / WAVE** — Select the MP3/Wave radio button if you want to select an MP3/Wave Band track file for the currently active preset on the Mustang.

**C. TRACK LIST** — Click on this drop down list to select a Band track on your computer for the currently active preset on your Mustang. When you start the band track the audio will play through your computer speakers, so you will need to adjust the playback volume through your computer and from the speaker volume control.

**D. REPEAT** — Click on this box for endless loop playback.

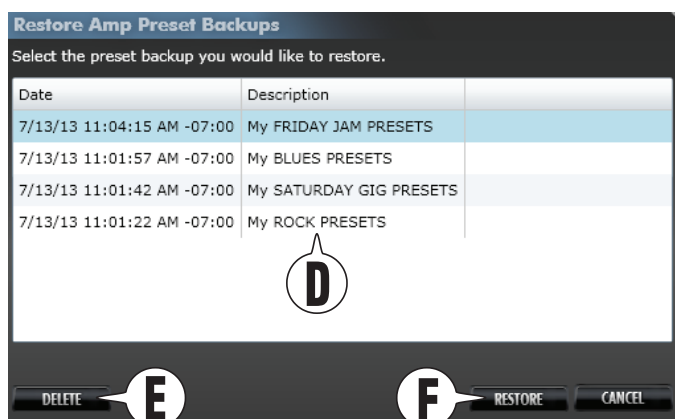
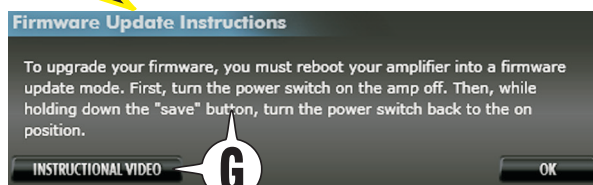
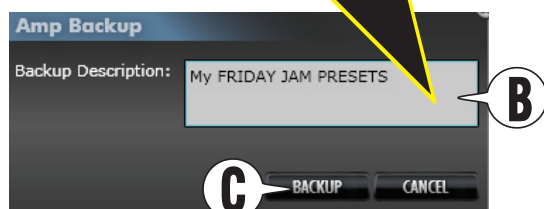
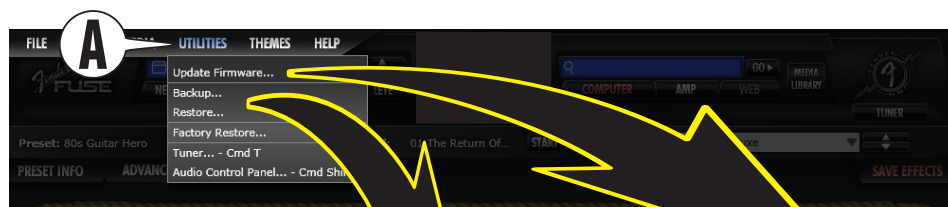
**E. PREVIEW / STOP** — Click to listen to the Band track selected in the Track List {C}.

**F. OK** — Click OK to save your Band track selection and settings for the currently active preset on the Mustang.



# Utility Screens

Click on "MAIN MENU" and then "UTILITIES" {A} to access Backup/Restore and Firmware update functions.



## Exclusive Features Accessible with Fender FUSE Software:

- BACKUP PRESETS
- RESTORE PRESETS

These Fender® FUSE™ features add functionality beyond what your amplifier provides on its own. Use Preset Backup to take a snapshot of your amplifier Presets. Fender FUSE saves backups on your computer with your personal descriptions so that you can easily find and Restore them at a later date. If you want, you can save several completely different backups such as "My Rock Presets" and "My Blues Presets" and restore each set for a particular occasion or performance.

**B. DESCRIPTION** — Enter a useful name for your backup here.

**C. BACKUP** — Click to backup your Mustang™ presets to your computer.

**D. RESTORE PRESETS** — Select a backup file to restore to your amplifier. You can sort the list of backups by Date, Description, or Presets by clicking on each column head.



*The RESTORE function will overwrite the target presets on your amplifier. It may be a good idea to Backup everything on your amplifier first, before performing a Restore operation!*

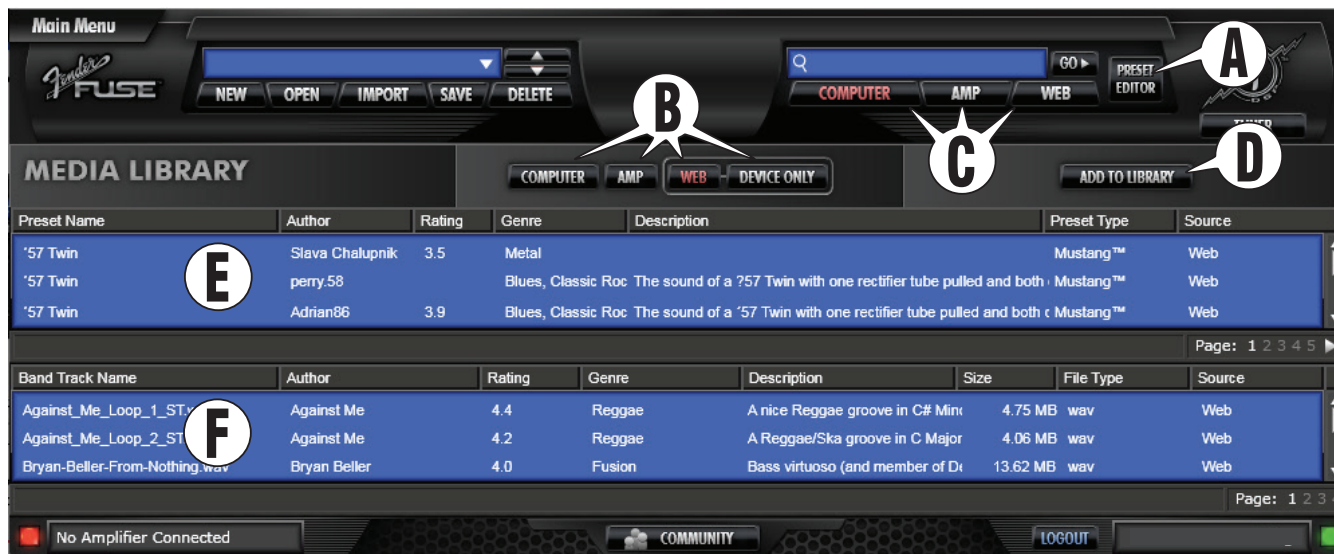
**E. DELETE** — Click to permanently delete the selected backup file.

**F. RESTORE** — Click to restore the selected preset to the amplifier.

**G. FIRMWARE UPDATE** — Firmware Update Instructions will appear as well as a link to an instructional video to help you through the steps. Please see "Firmware Update" on page 2 for step-by-step instructions on how to update the firmware for your amplifier model.

# Media Library

Click on the "MEDIA LIBRARY" button {A} (from the Preset Editor) to open the Media Library screen. From here you can easily view and search for all the presets and band tracks in any of the available media locations {B} currently selected (Computer, Amp and Web). Click on the "PRESET EDITOR" button {A} to return to the Preset Editor window.



**B. MEDIA LOCATION** — Click on any of these locations to show the lists of available presets and band tracks. If you click on the "WEB" button, the Media Library will display presets available for all Fender FUSE compatible products. If you click on the "DEVICE ONLY" button, only presets that are compatible with the Mustang model you currently have connected to your computer will be displayed, as indicated in the "Preset Type" column in the PRESET LIST {E} below.

**C. SEARCH** — Click on one or more of these buttons to highlight them as locations to search for presets and band tracks. Then type in a term in the window above and click "GO." Your search results will be displayed below. WEB is only available when you are logged in.

**D. ADD TO LIBRARY** — Click on "Add To Library" to copy preset files (\*.FUSE) and band track files (\*.MP3, \*.WAV) from anywhere on your computer to the location that FUSE searches on your computer by default.

**E. PRESET LIST** — This list shows the presets available in the selected Media location {B}. Right-clicking on any preset provides a dynamic list of load, save, copy and delete functions.

- When you have **Computer, Amplifier, Web or Device Only** selected as the Media location {B}, you can double-click on any product compatible preset in the Preset list {E} to open the Preset Editor with the selected preset ready to play.

**F. BAND TRACK LIST** — This list shows the band tracks available in the selected Media location {B}. Right-clicking on any band track provides a dynamic list of load, save, copy and delete functions.

- When you have **Computer** selected as the Media location {B}, you can double-click on a band track in the list {F} to activate it to play with the current preset through your computer speakers.
- When you have **Web** selected as the Media location {B}, you must first right-click on a band track in the list {F} and copy it to your computer before you can activate it to play with the current preset through your computer speakers.



The default location that Fender® FUSE™ uses to store presets on your computer is: **Documents > Fender > FUSE > Presets**.  
The default location for band tracks is: **Documents > Fender > FUSE > Audio > WaveMP3**.

# Fender® FUSE™ Online Community

Click on the "COMMUNITY" button {A} to open the Fender® FUSE™ Online Community site, within Fender FUSE. This site can also be visited with your web browser at: <http://fuse.fender.com>.

The Fender FUSE Online Community is your place to download software updates and access forums filled with information covering all Fender FUSE compatible devices. You'll also be able to download new presets, backing tracks, and other content directly from Fender's vast library, free of charge.

Come here and connect with fellow users to trade presets or share tips and tricks. Visit frequently as this site is updated often with exciting new content!



**B. PRESET EDITOR** — Click this button to return to the Fender FUSE preset editor.


**C. LOGIN / REGISTER** — Click Login to enter the Fender FUSE Amplifier Online Community. If you are not a member, please click on the "Register" link to create an account and enter your amplifier information. An amplifier serial number, located on the rear panel of your amplifier, is required to create an account.

**D. MAIN NAVIGATION** — Use these main navigation links to browse Fender FUSE-compatible products, view Presets and Band Tracks and to visit the Forums.

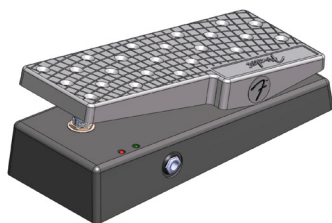
**E. DOWNLOAD LINKS** — Click on these links to download Band Tracks, Fender FUSE owner's manuals and to find answers to frequently asked questions.

**F. SCROLL BAR** — Scroll down to view the rest of the Fender FUSE Online Community site which contains content such as video tutorials and instructions on how to record audio to your computer. Also, check here to determine if any third party software applications, such as Ableton Live Lite or AmpliTube SE, are available for your Fender FUSE-compatible device.

# EXP-1 Pedal

 Before using the EXP-1 with Fender® FUSE™ you should update your Mustang to the latest firmware. See page 2 for step-by-step instructions.

## EXP-1 Pedal



The EXP-1 expression pedal (P/N 2301050000) is compatible with Fender® Mustang™ III-IV-V amplifiers.

The EXP-1 operates in two modes, Volume mode and Expression mode. Switch between modes by pressing down hard on the toe end of the EXP-1 pedal. Red and green LEDs on the EXP-1 indicate the current pedal mode:

- **Volume** mode is used to control master volume (or the pedal can be set to OFF in Volume mode).
- **Expression** mode can be used to control most effect and amp parameters on your Mustang. Some common uses are to control the frequency parameter of a Wah effect or the rate/time parameter of a modulation or delay effect.


## Pedal Calibration (EXP-1)

The first time you use the EXP-1, you should calibrate the pedal so that the full range of pedal movement registers properly.


### To calibrate the EXP-1:

1. Plug the EXP-1 into the 4 BUTTON FOOTSWITCH jack on the back of your Mustang amplifier.
2. Switch power OFF to your Mustang.
3. Press and hold the UTIL button on the Mustang while turning the power back ON. Continue holding the UTIL button down until it is no longer illuminated.
4. Move the EXP-1 pedal through the full range of movement between heel and toe.

NOTE: If desired, you can move the pedal through a *limited* range of movement to have a custom range of pedal movement registered (recognized) by the device.

 For example, if you only want the middle third of the pedal range to register, then only move the pedal back and forth through the middle third of its full range of movement. You must start the calibration process with the pedal positioned somewhere within the desired custom range.

5. Turn the DATA WHEEL on your Mustang to select a new preset.
6. The EXP-1 pedal is now calibrated.

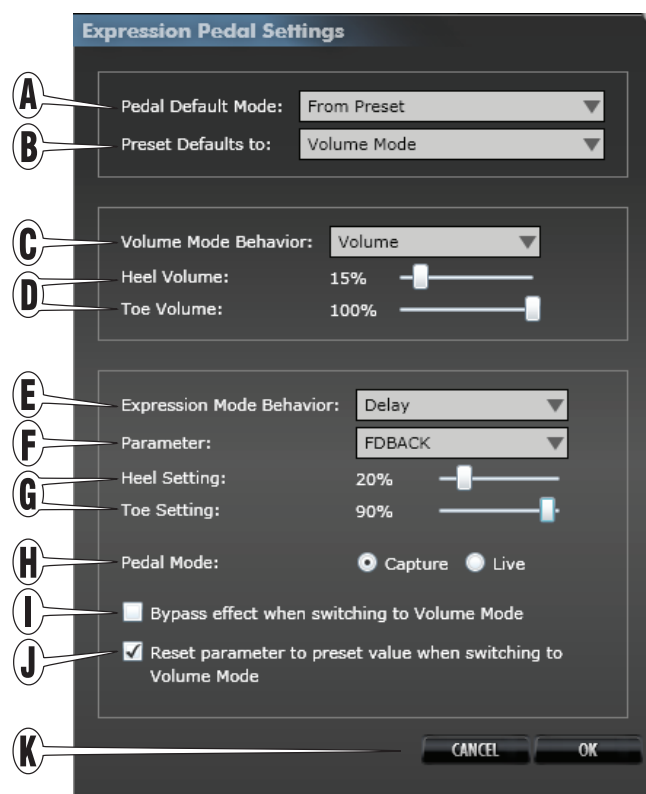
 Repeat the calibration procedure each time you change pedals, plug into a different Mustang, or perform a Factory Restore procedure on the Mustang.


## EXP-1 Pedal Settings

Use Fender FUSE to select the behaviors and parameter settings for the EXP-1 Volume and Expression modes.

### To configure EXP-1 settings:

1. Plug the EXP-1 into the 4 BUTTON FOOTSWITCH jack on the back of your Mustang amplifier.
2. Connect your Mustang to your computer via USB cable, then open the Fender FUSE application.
3. In Fender FUSE, open the expression pedal menu: **Main Menu > Utilities > Expression Pedal...**
4. Select the behaviors and parameter settings for Volume and Expression modes:



 A small EXP-1 pedal icon will appear in Fender FUSE next to the amp or effect that is currently selected in the Expression Mode Behavior menu. Click on it to open the Expression Pedal Settings window.

- A. Preset Default Mode:** — (From Preset/From Pedal) Select "From Preset" if you want the pedal mode to switch to the mode selected in the "Preset Defaults to" menu (below) each time you select the current preset. Select "From Pedal" if you want the pedal to remain in whichever mode the pedal is currently in whenever you select the current preset.
- B. Preset Defaults to:** — (Volume Mode/Expression Mode) Select the mode that you want the pedal to switch to each time you select the current preset (Preset Default Mode can override this setting).



# EXP-1 Pedal

## VOLUME MODE MENUS

- C. Volume Mode Behavior** — (Volume/Off) Select "Volume" if you want the pedal to control the master volume in Volume mode or select "Off" if you want the pedal to be OFF when switched to Volume mode.
- D. Heel/Toe Volume** — (0–100%) Use these menus to set the master volume level with the heel of the pedal in the fully down position (Heel Volume) and with the toe of the pedal in the fully down position (Toe Volume). These settings are global and affect all presets.

## EXPRESSION MODE MENUS

- E. Expression Mode Behavior** — (Off, Amp, Stomp, Mod, Delay, Reverb, Volume) Select the category that you want to control with the expression pedal in Expression mode. Select "Off" if you want the pedal to be OFF in Expression mode.



*You must have an effect selected for the current preset to make that category of effect become available for selection in the Expression Mode Behavior menu.*

- F. Parameter** — (Variable) Select the parameter that you want to control with the pedal in Expression mode. Your options will change depending on the category you selected in the Expression Mode Behavior menu above, and the effect module that is selected in the current preset.
- G. Heel/Toe Setting** — (Variable) Use this menu to set the level of the active parameter with the heel of the pedal in the fully down position (Heel Setting) and with the toe of the pedal in the fully down position (Toe Setting). Your options will change depending on the category you selected in the Expression Mode Behavior menu, above.
- H. Pedal Mode** — (Capture, Live) If "Live" is selected the current pedal position will override the stored preset setting for the assigned expression pedal parameter whenever you change presets. If "Capture" is selected, the pedal is disabled until you move the pedal after you change presets.
- I. Bypass Effect** — (On/Off) Check the box (On) to bypass the effect selected in the Expression Mode Behavior menu when switching the pedal to Volume mode. Un-check the box (Off) to leave the effect active.
- J. Reset Parameter to Preset Value when Switching to Volume Mode** — (On/Off) Check the box (On) to return the Expression Mode Parameter to the stored preset value when switching to Volume mode. Un-check the box (Off) if you want the parameter be left set to the position of the pedal when switching to Volume mode.
- K. OK/Cancel** — Select "OK" to confirm changes to the EXP-1 settings. Save the current preset to save the EXP-1 settings with the preset. Select "CANCEL" to undo all changes.

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REV G (ENGLISH)