Fender®

MS-8 SWITCHER

OWNER'S MANUAL

Fender
MS-8
PROGRAMMABLE MIDI SWITCH CONTROLLER

+1 YES
MENU SELECT
-1 NO
STORE
EXIT
FUNCTIONS
F1 F3
F2 F4

1 2 3 4 5 6 7 8
SWITCHES

POWER
ON OFF   AC IN
WARNING USE ONLY
MS-8 POWER SUPPLY

MIDI
IN   OUT

FOOTSWITCHES
F1   F2   F3   F3

Fender
ASSIGN   OUT
1 3 4 Button
USE ONLY FOR
FENDER · AMPS

DISPLAY
CONTRAST

SWITCHES
1   2   3   4
NORM   FENDER RED   PLAIN
ALL SWITCHES 0.5A / 10W MAX
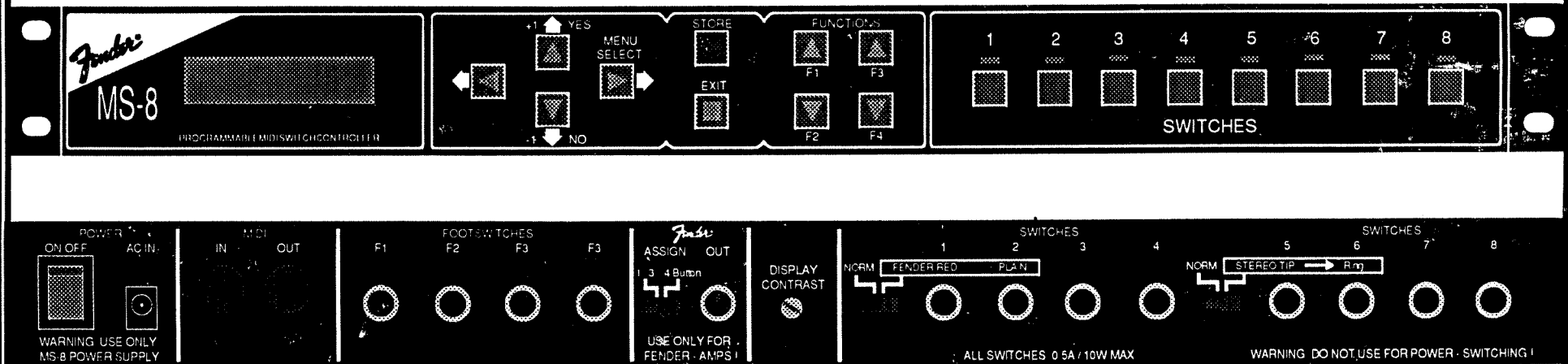
SWITCHES
5   6   7   8
NORM   STEREO TIP ➡ R m
WARNING DO NOT USE FOR POWER · SWITCHING

What the MS-8 <u>Will</u> Do

The MS-8 combines all of your footswitches and MIDI switching into one unit. Because the MS-8 has 128 memory locations, you can store up to 128 different switching combinations for all your equipment. Like many "microprocessor" based products, the MS-8 is a **MENU DRIVEN DEVICE**. This means, when programming the MS-8, you must select one of the various menus in order to modify that parameter.

The MS-8 can Replace Amplifier Footswitches

Standard Amplifiers

The MS-8 can perform the same functions as the footswitches of most standard amplifiers.

Older Fender Amplifiers

The MS-8 can perform the same functions as the footswitches of Fender amplifiers from the early '80's with "Red and Plain" footswitch arrangement (see #15 in Back Panel Explanation for specific models).

Newer Fender Amplifiers

The MS-8 can perform the same functions as the footswitches of Fender amplifiers from about 1987 on (these models use Fender's unique Multiplexing footswitch system).

Replace Other Footswitches

The MS-8 can control any unit that uses a footswitch to perform certain functions. This includes turning rack mounted and other effects on and off, starting and stopping tape machines, starting and stopping sequencers, and more.

Perform MIDI Mapping

The MS-8 can send out program change commands on up to 5 different channels at once. It can "tie together" an entire MIDI setup.

The MS-8 can also receive data MIDI program change information, and reconfigure it before sending it out (see the MIDI IN PRG. Menu).

Store Settings

The MS-8 can memorize up to 128 different combinations of your switching setups. Thus, when you have a certain combination of settings on all your equipment, you can store it in the MS-8 and recall it whenever you need it.

Arrange "SONGS"

You can group combinations of programs together into "SONGS", and call them up in a predetermined order.
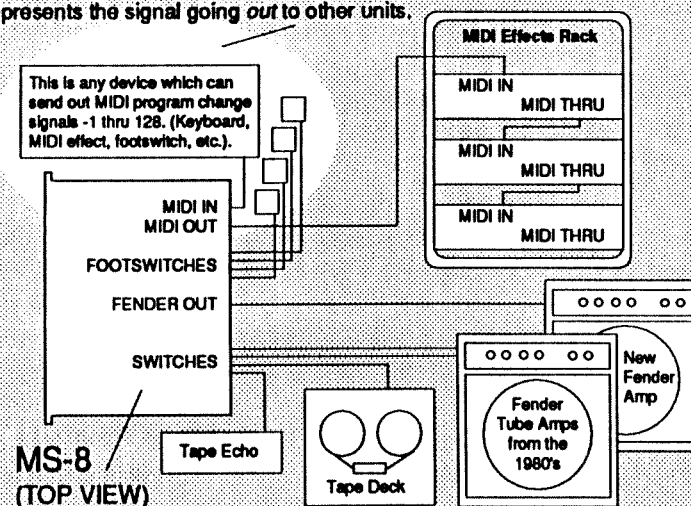
What the MS-8 <u>Will Not</u> Do

The MS-8 is not designed for any type of audio signal to be routed through it. Instead, it is designed to use the 8 relay switches and MIDI data to turn effects on and off.

DO NOT CONNECT AUDIO OUTPUTS OR INPUTS TO THE MS-8!

HOOK-UP/SIGNAL FLOW CHART

This white area represents *input* into the MS-8. Everything else here (in the shaded area) represents the signal going *out* to other units.

This is any device which can send out MIDI program change signals -1 thru 128. (Keyboard, MIDI effect, footswitch, etc.).

MIDI Effects Rack

MIDI IN
MIDI THRU

MIDI IN
MIDI THRU

MIDI IN
MIDI THRU

MIDI IN
MIDI OUT

FOOTSWITCHES

FENDER OUT

SWITCHES

MS-8
(TOP VIEW)

Tape Echo

Tape Deck

Fender Tube Amps from the 1980's

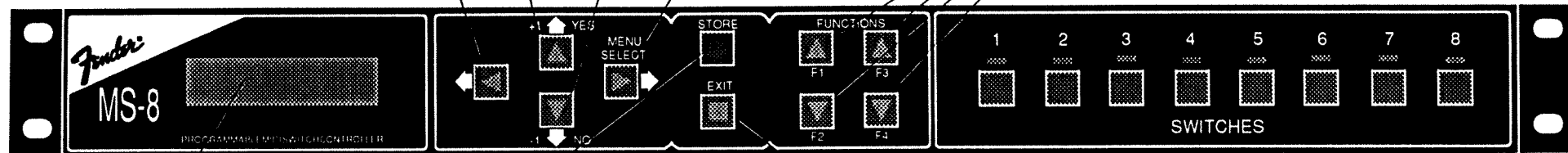New Fender Amp

FRONT

Value and Menu Select Buttons
These buttons move you from menu to menu and make changes within each menu.
LEFT Menu Select, YES (+1), NO (-1), RIGHT Menu Select

Function Buttons
Act the same as footswitches plugged into the 4 FOOTSWITCHES jacks in the back panel.
They also have special function within the menus.

[Device front panel: Fender MS-8 with YES +1, MENU SELECT, -1 NO, STORE, EXIT, FUNCTIONS F1 F2 F3 F4, SWITCHES 1-8]

PROGRAMMABLE MIDI SWITCH CONTROLLER

SWITCHES

Footswitch On/Off Buttons

Status Screen
Shows what is currently happening

STORE Button
For saving programs

EXIT Button
Takes you to main menu

Set the on / off positions of units plugged into the 8 "SWITCHES" jacks in the back panel.
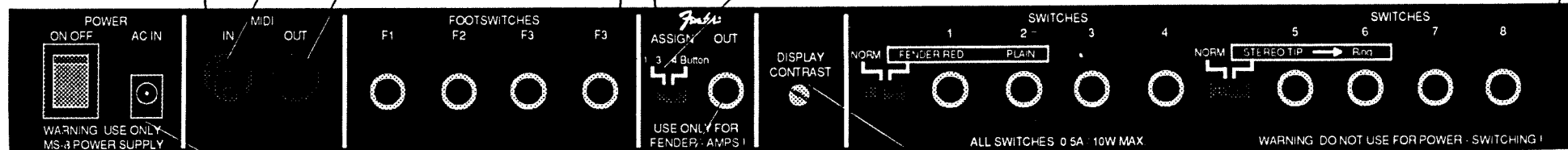

REAR

OUTPUT

MIDI Out
Sends out MIDI information

INPUT

FENDER ASSIGN
Sets this Jack up for new (multiplexing) Fender amplifiers. Refer to the Chart in MS-8 Back Panel Explanation to find out how to set this up for your amplifier.

MIDI In
Accepts MIDI information

FOOTSWITCHES
For Footswitches that control the MS-8

SWITCHES
These connect to devices that will be turned On and Off by the MS-8.

Buttons 1 and 2 can be set up to switch old Fender amplifiers

Buttons 5 and 6 can be set up to switch devices that have footswitches with a stereo cord

[Device rear panel: POWER ON OFF, AC IN, MIDI IN OUT, FOOTSWITCHES F1 F2 F3 F3, ASSIGN OUT, DISPLAY CONTRAST, SWITCHES 1-8]

POWER ON OFF   AC IN   MIDI IN OUT   FOOTSWITCHES F1 F2 F3 F3   ASSIGN OUT   1 3 4 Button   DISPLAY CONTRAST   SWITCHES   NORM FENDER RED PLAIN   NORM STEREO TIP → Ring

WARNING USE ONLY MS-8 POWER SUPPLY

USE ONLY FOR FENDER AMPS !

ALL SWITCHES 0 5A 10W MAX

WARNING DO NOT USE FOR POWER SWITCHING !

POWER
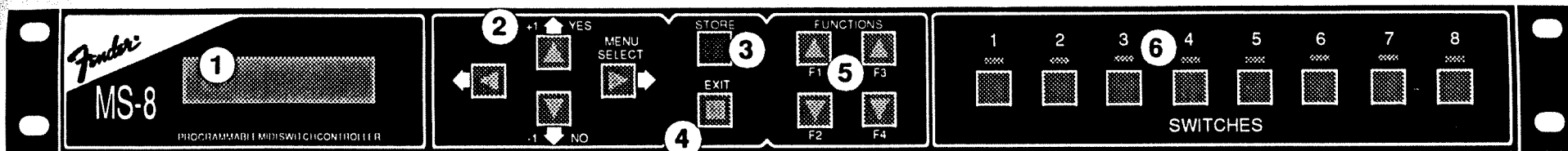Turns the unit On and Off

DC In
The adaptor plugs in here

FENDER OUT
Connects to the Footswitch Jack of your new (multiplexing) Fender amplifier.

DISPLAY CONTRAST
Adjusts the angle at which the screen is readable.

MS-8 FRONT PANEL EXPLANATION

(1) Status Screen

This screen shows you what is happening in the MS-8, whether you are calling up programs, changing (editing) programs, or using other functions.

The Status Screen will show three different levels of menus: main menus (menus in the black strip on the Menu Chart), sub menus (menus which are accessed directly from the main menus), and *sub* sub menus (menus which are accessed from the sub menus). In addition, there is the Store menu, which is accessed only by pressing the Store button.

To get an overview, refer to the Menu Chart on page 5 and 6.

(2) Scrolling Buttons

These 4 buttons—Left, Right, +1/YES, -1/NO—move the "cursor" to the left or right, change the values to which the cursor is pointing, and switch between some of the sub menus and *sub* sub menus. "Cursor" is a term which means the value that the MS-8 is currently set up to change. Whenever a value is underlined, that means the cursor is pointing to that value, and it can be acted on.

(3) Store Button

Lets you store a specific set of switching information (a program) into permament memory, to be called up in the future. You can use the Store button no matter what menu you are currently in.

To store a program, simply press the Store button once, and you will get the Store menu, which shows you the number of the program you are currently on (between 1 and 128), and then asks you what location you want to store it in (between 1 and 128). At this point, all 8 LED's above the SWITCHES will be flashing. Use the +1/YES and -1/NO buttons to choose the location, then press the Store button again. That program is now stored in the memory location (between 1 and 128) that you specified.

If you hit the Store button once, then decide you do not want to store the program, simply press the Exit button.

(4) Exit Button

The Exit button has 3 functions: 1) When you are in a sub or sub sub menu, it returns you to the corresponding main menu; 2) When you are in a main menu, it returns you to the PLAY / EDIT menu; and 3) When you are in the Store menu, it cancels that function (see section above).

(5) Function Buttons

These 4 buttons—F1, F2, F3, F4—do two things: 1) They perform the same functions as footswitches hooked up to the FOOTSWITCHES jacks on the MS-8's back panel; and 2) They perform special editing functions within many of the menus.

(6) SWITCHES

These 8 switches—1, 2, 3, 4, 5, 6, 7, 8—control the status of the devices connected to the 8 SWITCHES jacks on the MS-8's back panel. The red LED above each SWITCH shows you whether that SWITCH is on (bright red) or off (dull red). It can also indicate when certain changes are being made, by flashing.

MS-8 BACK PANEL EXPLANATION

(7) ON/OFF

This switch turns the unit on and off.

(8) AC IN

The adaptor (included with the MS-8) plugs in here.
CAUTION: Use only the adaptor provided with the MS-8! Substituting another adaptor may damage the MS-8.

MIDI Jacks

(9) MIDI IN

The MS-8 is set up so that it can be controlled by another MIDI device (an external MIDI device can trigger program changes on the MS-8). To accomplish this, connect the MS-8's MIDI In jack to the MIDI Out jack of the controlling device.

One very effective way to use this jack is to connect a MIDI FootSwitch to it (many companies make this type of switch).

NOTE: Since the MS-8 has no MIDI Thru jack, it must be the last unit in a MIDI chain. Signals received via the MS-8's MIDI In jack will not be "passed through" the MS-8's MIDI Out jack.
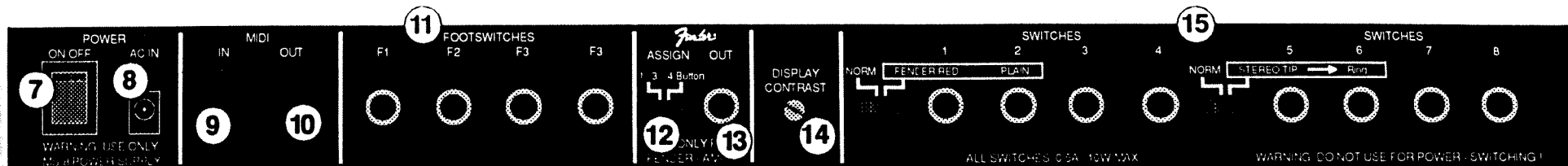
⑩ MIDI OUT

One of the major points of the MS-8 is its ability to control other MIDI devices by sending program number signals. To do this, connect the MS-8's MIDI Out jack to the MIDI In jack of the device you wish to control. If you want to control more than one external device (the MS-8 can send out information on 5 separate MIDI channels), simply create a MIDI chain, by connecting your MIDI devices like so:

MS-8 MIDI Out	➡	Device #1 MIDI In
Device #1 MIDI Thru	➡	Device #2 MIDI In
Device #2 MIDI Thru	➡	Device #3 MIDI In
Device #3 MIDI Thru	➡	Device #4 MIDI In . . . etc.

⑪ FOOTSWITCHES

You must use positive momentary footswitches (closing types) with these jacks. They can then be set up to perform various controlling functions with the MS-8 (see FOOTSW. menu section).

⑫ ASSIGN

New Fender amplifiers utilize a Multiplexing system for footswitching, which simply means that more than one signal can be sent through a single cable (up to 4, in fact). If you have one of these amplifiers (see list below), use the chart provided to set the switch so that it corresponds to your amplifier.

Look in the chart provided here and see if your Fender amp is listed.

AMP NAME	TYPE OF FOOTSWITCH	FOOTSWITCH OPTIONS	MS-8 DISPLAY
Super 60 M-80 Super 112/210	1-button Footswitch:	Channel switching	CHN.1 / CHN.2
Princeton Chorus M-80 Chorus	2-button Footswitch:	Channel switching Chorus on or off	CHN.1 / CHN.2 CH. ON / OFF
The Twin Eighty-Five Dual Showman SR Head	2-button Footswitch:	Channel switching Reverb on or off	CHN.1 / CHN.2 REV. ON / OFF
Pro 185 Stage 185 London 185 Deluxe 85	3-button Footswitch:	Channel switching Boost on or off (channel 2) Reverb on or off	CHN.1 / CHN.2 / BOOST * REV. ON / OFF

◀ Set ASSIGN Switch to "1...3"

AMP NAME	TYPE OF FOOTSWITCH	FOOTSWITCH OPTIONS	MS-8 DISPLAY
Power Chorus	4-button Footswitch:	Channel switching Boost on or off (channel 2) Reverb on or off Chorus on or off	CHN.1 / CHN.2 / BOOST * REV. ON / OFF CH. ON / OFF

◀ Set ASSIGN Switch to "4"

* When Fender amplifiers have a Boost on/off control, the Fender footswitch is set up with one switch for channel switching and one switch for Boost on/off. But since the Boost works only on channel 2, there are actually three possible combinations: Channel 1; Channel 2; Channel 2 with Boost. The MS-8 is designed to switch between those three combinations.

NOTE: If your amplifier is not in this chart but is a post 1987 model, chances are that it does use Multiplex switching, but was designed after this manual was written. In that case, call Fender's Customer Service Department for assistance.

To set the MS-8 for your specific Fender amp, position the ASSIGN switch as shown in table.

⑬ OUT

If you do have one of the amplifiers listed in the table above, connect this jack—with any guitar or speaker cord—to your amplifier's Footswitch jack.

DISPLAY CONTRAST

⑭   Often, you will be looking at the MS-8's Status Screen from "above", such as when the MS-8 is mounted in a rack and you are standing. You can use the Display Contrast control to adjust the angle at which the Screen appears most clear. By turning the control clockwise, you raise the point— from direct horizontal to about 45 degrees—at which the characters on the screen are darkest.

SWITCHES

⑮   These 8 switches can be connected to any device that is turned on and off, started or stopped, etc., by a footswitch. Several of the switches have dual functions.

Switches 1 and 2 can be used to control these "older" Fender tube amplifiers (simply move the slide switch to the Fender Red/Plain position):

Super Champ, Princeton Reverb II, Deluxe Reverb II, Concert, Twin Reverb II

Switches 5 and 6 can be used if your amplifier requires a stereo cord for switching.

MS-8 SWITCHER MENU

Double Line = Main Menue

Single Line = Sub Menue

Broken Line = Sub *Sub* Menu

STORE *(1 thru 128)* TO *(1 thru 128)*
(patch name)

STORE

EXIT

(any menu)

PLAY *(patch number)*
(patch name)

STORE

FENDER(CHN.1,CHN.2 *or* BOOST) *(patch #)*
CH. (ON *or* OFF)   REV.(ON *or* OFF)

+1 YES   EXIT

MIDI-OUT # *(1 thru 5)* *(patch #)*
PRG.CHANGE (OFF *or* 1 *thru* 128)

+1 YES   EXIT

(PLAY *or* EDIT) *(1 thru 128)*
(8 characters)

MENU SELECT

↑ FENDER AMP OUT
↓ TITLE EDIT

MENU SELECT

↑ MIDI-OUT PROG.
↓ WRITE PROTECT

MENU SELECT

EXIT

-1 NO

TITLE EDIT *(patch #)*
(8 characters)

EXIT

-1 NO

WRITE PROTECT
(OFF , ALL *or* MEMORY)

Character Chart

The following characters are all available, as well
as a blank space:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9   - + * / = ! ( ) # .

CHART

( ) = things in this menu you can change *directly*

[( )] = things in this menu you can change *indirectly* (for instance, that change when you do other things)

[ ] = things in this menu you cannot change

FTSW. *(1 thru 8)*   SWITCH
TOGGLE   *(1 thru 8)*

FTSW. *(1 thru 8)*   SWITCH
TOUCH   *(1 thru 8)*

FTSW. *(1 thru 8)*   PROGRAM
(1 thru 128)   *(patch name)*

FTSW. *(1 thru 8)*   PROGRAM
RELATIVE   *(-10 thru +10)*

FTSW. *(1 thru 8)*   SONG
ABSOLUTE   *(1 thru 100)*

FTSW. *(1 thru 8)*   SONG
RELATIVE   *(-10 thru +10)*

FTSW. *(1 thru 8)*   STEP
ABSOLUTE   *(1 thru 100)*

FTSW. *(1 thru 8)*   STEP
RELATIVE   *(-10 thru +10)*

FTSW. *(1 thru 8)*   PR-TOUCH
(1 thru 128)   *(patch name)*

FTSW. *(1 thru 8)*   MD-TOUCH
(1 thru 128)   *(patch name)*

MIDI SETUP !
ARE YOU SURE ?
        INITIALIZED

MIDI OUT # *(1 thru 5)*
TRANSMIT CHN. *(1 thru 16)*

MIDI IN PRG.   *(1 thru 128)*
(1 thru 128)   *(patch name)*

MIDI IN
RECEIVE CHN. (OFF, OMNI, 1 *thru* 16)

SONG *(1 thru 100)*   STEP *(1 thru 8)*
(1 thru 128)   *(patch name)*

MENU SELECT ▶

+1 ● YES   **EXIT**

↑ SONGS/FOOTSW.
↓ SWITCH/FENDER

MENU SELECT ▶

↑ MIDI SETUP
↓ HELLO MESSAGE

MENU SELECT ▶   To or from PLAY/EDIT Menu

EXIT

MENU SELECT ▶

-1 ● NO

SWITCH # *(1 thru 8)*   [ON or OFF]
POS.PULSE   t=   *(1 thru 100)*

NEG.PULSE   t=   *(1 thru 100)*

POS.SWITCH

NEG.SWITCH

FENDER   AMP1

FENDER   AMP2
            CHO.

FENDER   AMP3
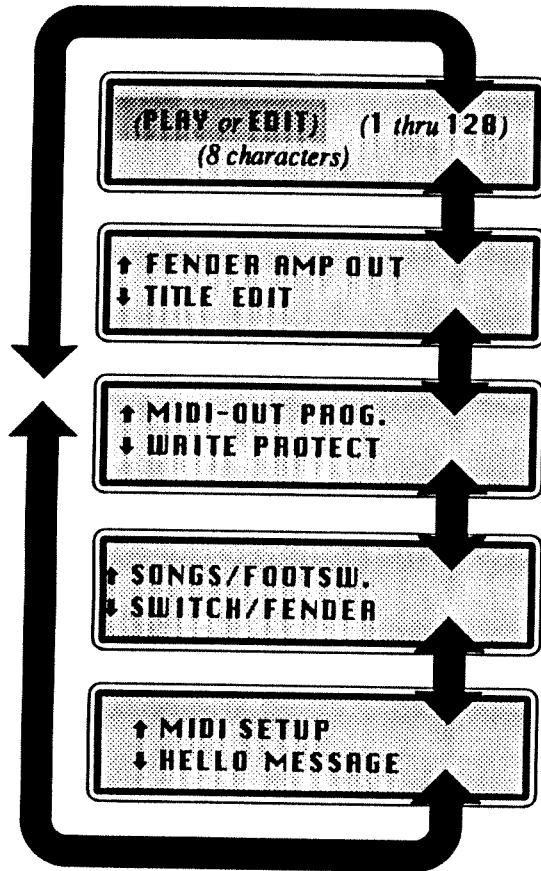   REV.

FENDER   AMP4
BOOST   REV.

FENDER   AMP5
BOOST   CHO.   REV.

-1 ● NO

"HELLO" MESSAGE
(16 characters)

MENU OVERVIEW

Getting to each Main menu

When you turn the MS-8 on, you will see the PLAY/EDIT menu. To get to the other 4 Main Menus, simply use the Left and Right Menu Select buttons.

```
┌─────────────────────────────────┐
│  (PLAY or EDIT)    (1 thru 128)  │
│       (8 characters)             │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│  ↑ FENDER AMP OUT                │
│  ↓ TITLE EDIT                    │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│  ↑ MIDI-OUT PROG.                │
│  ↓ WRITE PROTECT                 │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│  ↑ SONGS/FOOTSW.                 │
│  ↓ SWITCH/FENDER                 │
└─────────────────────────────────┘

┌─────────────────────────────────┐
│  ↑ MIDI SETUP                    │
│  ↓ HELLO MESSAGE                 │
└─────────────────────────────────┘
```

Choosing Upper or Lower Sub menu

Except for the PLAY/EDIT menu, each Main menu has an upper and lower menu, indicated by up and down arrows. To get from the Main menu to the upper and lower sub menus, use the +1/YES button to go up and the -1/NO button to go down.

Returning to Main menu

Pressing the EXIT button when you are in one of the Sub menus always returns you to the corresponding Main menu. Pressing the EXIT button when you are already in one of the Main menus returns you to the PLAY/EDIT menu.

Moving Between Sub Menus

The menus directly off the Main menus are Sub menus. But sometimes there two menus off a Main menu (as in the case of the SONGS/FOOTSW. and the SWITCH/FENDER Main menus).

To access them, use the +1/YES button to go up and the -1/NO button to go down to the first Sub menu, then use the Left and Right Menu Select buttons to move between the 2 Sub menus.

Moving Between Sub *Sub* Menus

Some sub menus have several different variations, and these are sub sub menus. Sub *sub* menus are contained within the FOOTSW., SWITCH, FENDER, and MIDI SETUP menus. Once you are in a set of sub *sub* menus, you move between them by using the Left and Right Menu Select buttons or the Function buttons.

STORE Menu

```
STORE  (1 thru 128) TO (1 thru 128)
              (patch name)
```

No matter where you are: when you press the STORE button, the STORE menu will show up. It will display the number of the program you are working on (left), and you can choose which program number you want to save it in (using the +1/YES and -1/NO buttons).

Pressing the STORE button again completes the save. Pressing the EXIT button will cancel the STORE function.

PLAY / EDIT Menu

(PLAY or EDIT) *(1 thru 128)*
(8 characters)

Main Menu

PLAY

When you turn on the MS-8, you will see this menu, with PLAY in the upper left hand corner. Use the +1/YES and the -1/NO buttons to scroll up and down patch numbers, respectively. As you change patch numbers, the corresponding patch name will appear in the lower row.

Setting SWITCHES

It is in this menu that you can set the on/off position of the 8 SWITCHES, by simply pressing any of the SWITCHES buttons. When the LED above a SWITCH is glowing bright red, that SWITCH is on. When the light is a dull red, the SWITCH is off.
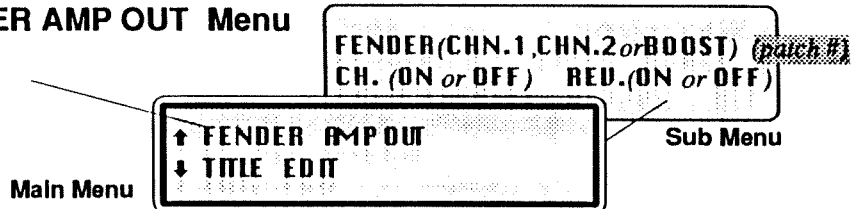
EDIT

As soon as you change one of the 8 SWITCHES, the PLAY in the upper left hand corner changes to EDIT, indicating that you are "editing" the current program.

This menu will remain in the EDIT mode until you: 1) Store the program you are working on into memory; or 2) Change to another program number. If you do change the program number (without using the STORE button to save the changes into memory), the program you *were* working on will revert to the way it was before you changed it, and any changes you made will be lost.

Whether or not you start in the EDIT mode: if you go to another menu and make changes (without storing them into memory), the PLAY/EDIT menu will be in the EDIT mode when you return to it.

FENDER AMP OUT Menu

FENDER(CHN.1,CHN.2 or BOOST) (patch #)
CH. (ON or OFF)   REU.(ON or OFF)

↑ FENDER AMP OUT
↓ TITLE EDIT

Sub Menu

Main Menu

This menu corresponds to the FENDER OUT jack in the rear panel. It is used for setting up configurations for new Fender amps that use Multiplex footswitching.

Depending on the way you have set the FENDER menu (later in this manual), the FENDER OUT menu may offer different possibilities. Use the Left and Right Menu Select buttons to move from option to option, and use the +1/YES and the -1/NO buttons to change the value of that option. The option that is underlined is the one the +1/YES and -1/NO buttons will change the value of.

The Program Number displayed in the upper right corner is the one you are working on. You cannot change to another program in this menu.

Function buttons:

F1   goes between CH.1, CH.2, and BOOST
F2   turns the CH. (chorus) ON and OFF
F3   (no function)
F4   turns REV. (reverb) ON and OFF

8

TITLE EDIT Menu

```
TITLE EDIT          [patch #]
        (8 characters)
↑ FENDER AMP OUT              Sub Menu
↓ TITLE  EDIT
```
Main Menu
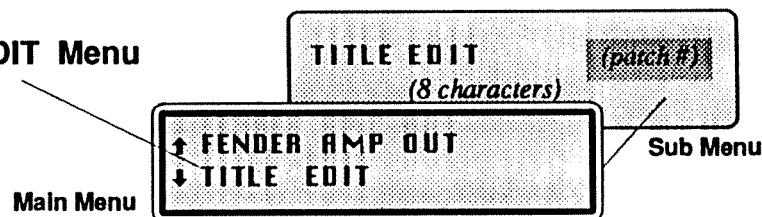
It is from this menu that you change the title of a given patch. Use the Left and Right Menu Select buttons to move the cursor from one character position to the next in the name, and use the +1/YES and the -1/NO buttons to change that character (see Character Chart on the Menu Chart page for possible characters).

Function buttons:

F1 deletes the character
F2 inserts a blank space *between* characters
F3 clears the entire name
F4 cancels all [title] edits, and restores the old name

MIDI-OUT Menu

```
MIDI-OUT    #(1 thru 5)    [patch #]
PRG.CHANGE (OFF or 1 thru 128)
↑ MIDI-OUT PROG.              Sub Menu
↓ WRITE PROTECT
```
Main Menu
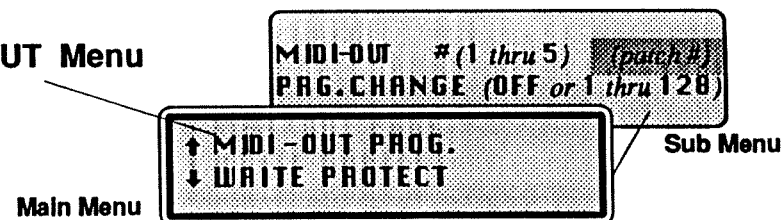
This menu sets up the "MIDI mapping" function of the MS-8. For each of 5 MS-8 MIDI channels, you can send out any PRG.CHANGE (program change) number from 1 to 128, or you can send no program change information ("OFF").

It is important to remember that these channels—1 through 5—are the MS-8's internal channels 1 through 5, and do not necessarily correspond to the 16 possible MIDI channels. The actual MIDI channel that each internal MS-8 channel operates on is determined later in this manual, in the MIDI OUT # menu.

For instance, the MS-8's channel 3 could be set up to send out MIDI information on MIDI channel 14, while the MS-8's channel 1 could acutally be set up to send out MIDI information on MIDI channel 1.

Use the Left and Right Menu Select buttons to move the cursor from option to option, and use the +1/YES and the -1/NO buttons to change the value of that option.

Function buttons:

F1 previous MIDI OUT #
F2 next MIDI OUT #
F3 previous PRG.CHANGE
F4 next PRG.CHANGE

NOTE: This is a "Global Menu" (see section at end of this manual)

WRITE PROTECT Menu

```
WRITE PROTECT
(OFF, ALL or MEMORY)
```
Sub Menu

```
↑ MIDI-OUT PROG.
↓ WRITE PROTECT
```
Main Menu
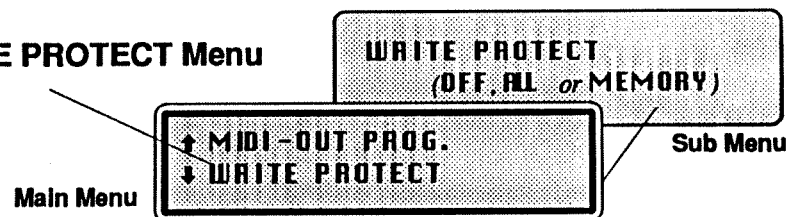
When you have important programs that you do not wish to change—even by accident!—you can "lock" them into memory using this function.

MEMORY ......Protects your stored programs. Changes can be made to to the programs, but those changes cannot be saved.

ALL ....Same as MEMORY, but has one additional function: in this mode, none of the 8 SWITCHES can be changed.

OFF ....Allows you to overwrite any program.

Use the Left and Right Menu Select buttons to select one of the three options.

Function buttons: **F1** OFF - **F2** MEMORY - **F3** ALL - **F4** (no effect)

SONGS Menu

```
SONG (1 thru 100 )  STEP (1 thru 8)
(1 thru 128)  (patch name)
```
Sub Menu

```
↑ SONGS/ FOOTSW.
↓ SWITCH/FENDER
```
Main Menu
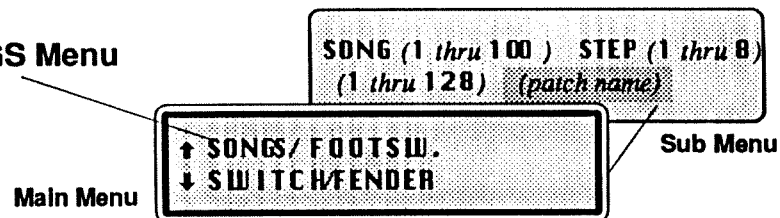
The MS-8 can combine program changes together into groups called SONGS. This can be useful. For instance, suppose during a certain song, you know that you will use program #102 for the intro, program #50 for the first verse, program #17 for the chorus, back to program number #50 for the second verse, and so on. You could link these program numbers together into a SONG, and just use a footswitch to go from one program to the next.

These program changes within a SONG are called STEPS, and each STEP calls up one program number. You can have up to 8 STEPS in a SONG. When you get to the last STEP, the MS-8 cycles around to the first STEP. Up to 8 STEPS can be used in each SONG (but you don't have to use that many). The MS-8 can remember up to 100 different SONGS.

In the SONGS menu, start with a SONG number. For each STEP (1 through up to 8), choose a program number. Use the F1 and F2 buttons to move the SONG number up and down (respectively). Use the F3 and F4 buttons to move the STEP number up and down (respectively). Use the +1/ YES and -1/NO buttons to move the patch number up and down (the patch name will change along with the patch number).

The Left and Right Menu Select buttons will move you to the next sub menu that is accessed from this main menu: the FOOTSW. menu.

Step 1 - Select any SONG mode

Step 2 - Use F1 and/or F2 to select Song number

Step 3 - Use F3 and/or F4 to select Program number

10

```
 ┌─────────────────────────────────┐
 │ FTSW. (1 thru 8)    SWITCH      │
 ┌┤ TOGGLE             (1 thru 8)  │
 │└─────────────────────────────────┘
 │ ┌─────────────────────────────────┐
 │ │ FTSW. (1 thru 8)    SWITCH      │
 ┌┤ │ TOUCH              (1 thru 8)  │
 │└─┴─────────────────────────────────┘
 │ ┌─────────────────────────────────┐
 │ │ FTSW. (1 thru 8)    PROGRAM     │
 ┌┤ │ (1 thru 128)       (patch name)│
```

FTSW. (1 thru 8)   SWITCH
TOGGLE   (1 thru 8)

FTSW. (1 thru 8)   SWITCH
TOUCH   (1 thru 8)

FTSW. (1 thru 8)   PROGRAM
(1 thru 128)   (patch name)

FTSW. (1 thru 8)   PROGRAM
RELATIVE   (-10 thru +10)

FTSW. (1 thru 8)   SONG
ABSOLUTE   (1 thru 100)

FTSW. (1 thru 8)   SONG
RELATIVE   (-10 thru +10)

FTSW. (1 thru 8)   STEP
ABSOLUTE   (1 thru 100)

FTSW. (1 thru 8)   STEP
RELATIVE   (-10 thru +10)

FTSW. (1 thru 8)   PA-TOUCH
(1 thru 128)   (patch name)

FOOTSW.
(Footswitch)
Menu

FTSW. (1 thru 8)   MO-TOUCH
(1 thru 128)   (patch name)

↑ Sub Sub Menus

SONG (1 thru 100) STEP (1 thru 8)
(1 thru 128)   (patch name)

Sub Menu

↑ SONGS/FOOTSW.
↓ SWITCH/FENDER

Main Menu

This sub menu actually has 10 sub *sub* menus. There are two ways to move between the 10 sub *sub* menus: 1) by using the Left and Right Menu Select buttons to move the cursor to the variable in the upper right corner, then using the +1/YES and -1/NO buttons to move up and down the sub *sub* menus; and 2) by using the F1 and F2 buttons to move up and down the sub *sub* menus.

Either way, once you are in a certain sub *sub* menu, use the Left and Right Menu Select buttons to move between the other 2 options: the FTSW. (footswitch) number in the upper left corner, and the variable on the lower row (different, depending on which sub *sub* menu you are in).

If you keep pressing the Left and Right Menu Select buttons, you will eventually end up back in the SONG menu (see previous section).

To change the value of the variable in the lower row, either: 1) select the variable with the Left and Right Menu Select buttons, then use the +1/YES and -1/NO button to change the value; or 2) use the F3 and F4 buttons to change the value.

To change the value of the FTSW. (footswitch) number in the upper left corner, move the cursor to this variable with the Left and Right Menu Select buttons, then use the +1/YES and -1/NO buttons to change the value.

What this set of sub *sub* menus does is set up the way the four FOOTSWITCHES jacks in the back of the MS-8 act to control the MS-8. Each of up to 4 footswitches that you plug into the MS-8 can do a number of different things.

NOTE: Although this menu allows you to choose between 8 different FOOTSWITCHES, you can actually only utilize FOOTSWITCHES number 1, 2, 3 and 4. Choosing one of the FOOTSWITCHES between 5 and 8 will have no effect.

The option of setting up each of the 4 footswitches to perform different function is a useful one. For example, you could have:

Footswitch 1 select SONGS with an increment of 10 so that you could quickly get to a group of 10 songs,
Footswitch 2 select SONGS with an increment of 1 so you could narrow in on a specific song,
Footswitch 3 select STEPS within each SONG, and
Footswitch 4 go immediately to a patch that selected a "silent" program, which would be helpful between songs.

The options are:

SWITCH / TOGGLE ....The footswitch will act directly on any one of the 8 SWITCHES, turning it on and off as you hit the footswitch.

FTSW. (1 thru 8)   SWITCH
TOGGLE   (1 thru 8)

SWITCH / TOUCH ....Same as above, but if the SWITCH was *on*, the footswitch turns it *off* only as long as you are holding it down; if the SWITCH was *off*, the footswitch turns it *on* only as long as you are holding it down.

FTSW. (1 thru 8)   SWITCH
TOUCH   (1 thru 8)

PROGRAM / ABSOLUTE .... The footswitch instantly selects any one of the 128 programs.

```
FTSW. (1 thru 8)    PROGRAM
(1 thru 128)        (patch name)
```

PROGRAM / RELATIVE .... The footswitch moves up or down through the programs each time you hit it. This function has an extra capability, in that you can set the increment amount anywhere from -10 to +10. So that, for instance, if you had the increment set to +7, and you were on program 40, hitting the footswitch once would change the the MS-8 to program 47, hitting the footswitch again would change the the MS-8 to program 54, and so on.

```
FTSW. (1 thru 8)    PROGRAM
RELATIVE           (-10 thru +10)
```

SONG / ABSOLUTE .... The footswitch instantly selects any one of the 100 SONGS.

```
FTSW. (1 thru 8)    SONG
ABSOLUTE           (1 thru 100)
```

SONG / RELATIVE .... The footswitch moves up or down through the SONGS each time you hit it. This function has an extra capability, in that you can set the increment amount anywhere from -10 to +10. So that, for instance, if you had the increment set to +7, and you were on SONG 40, hitting the footswitch once would change the the MS-8 to SONG 47, hitting the footswitch and again would change the the MS-8 to SONG 54, and so on.

```
FTSW. (1 thru 8)    SONG
RELATIVE           (-10 thru +10)
```

STEP / ABSOLUTE .... The footswitch instantly selects any one of the 8 STEPS.

```
FTSW. (1 thru 8)    STEP
ABSOLUTE           (1 thru 100)
```

STEP / RELATIVE .... The footswitch moves up or down through the STEPS each time you hit it. This function has an extra capability, in that you can set the increment amount anywhere from -10 to +10. So that, for instance, if you had the increment set to +7, and you were on STEP 1, hitting the footswitch once would change the the MS-8 to STEP 8, hitting the footswitch again would change the the MS-8 to STEP 7, and so on.

```
FTSW. (1 thru 8)    STEP
RELATIVE           (-10 thru +10)
```

PR-TOUCH .... The footswitch instantly selects any one of the 128 programs, but stays there only as long as you are holding the footswitch down

```
FTSW. (1 thru 8)    PR-TOUCH
(1 thru 128)        (patch name)
```
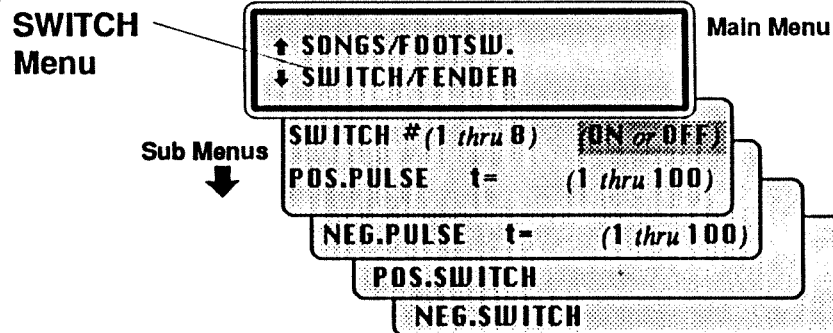
MD-TOUCH .... Same as above, but transmits only the MIDI change information in the selected program.

```
FTSW. (1 thru 8)    MD-TOUCH
(1 thru 128)        (patch name)
```

Additional Note for Footswitching:

There are a number of MIDI footswitches on the market. Any footswitch that sends program change data will work with the MS-8. For maximum flexability, try using both a MIDI footswitch and one or more momentary switches.

SWITCH Menu

Main Menu

↑ SONGS/FOOTSW.
↓ SWITCH/FENDER

Sub Menus ⬇

SWITCH #(1 *thru* 8)   [ON *or* OFF]
POS.PULSE   t=   (1 *thru* 100)

NEG.PULSE   t=   (1 *thru* 100)

POS.SWITCH

NEG.SWITCH

Because different devices utilize different kinds of footswitches, the MS-8 has been designed to cover a number of possibilities. Thus, each of the 8 SWITCHES can be set up to operate in 4 different modes:

POS.PULSE (positive) ....This sends out a momentary positive voltage pulse. You can control the length of the pulse. If the LED is dim, the switch is opened.

NEG.PULSE (negative) ....Same as above, but with negative voltage. If the LED is on, the switch is opened.

POS.SWITCH (positive) ....Acts like a normal toggle switch, using positive voltage. When the LED changes, the switch will be closed for a specific time.

NEG.SWITCH (negative) ....Same as above, but with negative voltage. When the LED changes, the switch will be closed for a specific time.

If you do not understand the previous information, do not despair! Owners Manuals for most products don't even mention what type of footswtich is used. What you will probably have to do is experiment with the MS-8 a little to find which mode works for your other equipment. And don't worry—you can't hurt anything!
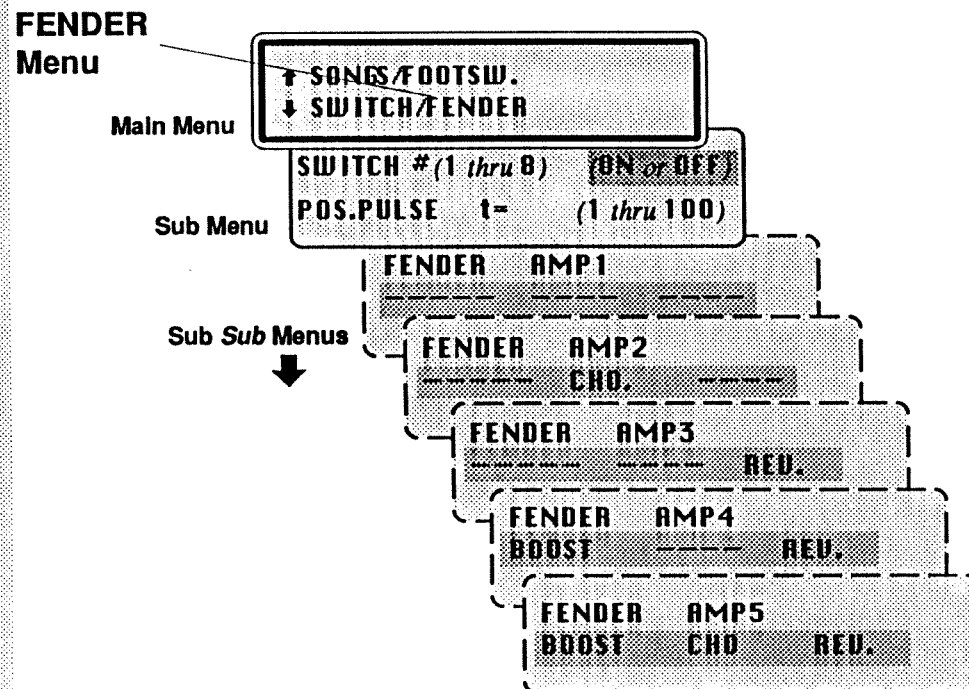
HINT: Normally, units with footswitches are switched by a PULSE time of 1 to 10 milliseconds (set "t =" somewhere between 1 and 10). Computerized units, such as multieffects, etc., are switched by a longer PULSE time of 20 to 100 milliseconds (set "t =" somewhere between 20 and 100).

Use the Left and Right Menu Select buttons to move the cursor from option to option, and use the +1/YES and the -1/NO buttons to change the value of that option.

The Left and Right Menu Select buttons will move you to the next set of sub *sub* menus that is accessed from this main menu: the FENDER sub *sub* menus.

<u>Function buttons</u>:
  F1 - POS.PULSE, **F2** - NEG.PULSE, **F3** - POS.SWITCH, **F4** - NEG.SWITCH

FENDER Menu

Main Menu

↑ SONGS/FOOTSW.
↓ SWITCH/FENDER

Sub Menu

SWITCH #(1 *thru* 8)   [ON *or* OFF]
POS.PULSE   t=   (1 *thru* 100)

Sub *Sub* Menus ⬇

FENDER   AMP1

FENDER   AMP2
              CHO.

FENDER   AMP3
                 REV.

FENDER   AMP4
BOOST   ----   REV.

FENDER   AMP5
BOOST   CHO   REV.

If you have one of the new Multiplexing Fender amplifiers (see chart in BACK PANEL section), you will use these sub *sub* menus to match the MS-8 with your specific model of amplifier. Simply use the +1/YES and -1/NO buttons to change the value of these sub *sub* menus until you get the one that matches the footswitch that came with your amplifier.

The sub *sub* menu you select here (AMP1, AMP2, AMP3, AMP4, or AMP5) will be reflected in the FENDER AMP OUT Menu.

NOTE: You must choose the sub *sub* menu that matches your footswitch. Choosing the wrong sub *sub* menu here will not alter the performance of your amplifier. For example, if your amplifier does not have Chorus, selecting one of the sub *sub* menus with CHO. will not add chorusing to your amplifier.

MIDI Setup

```
┌─────────────────────────┐  Main Menu
│ ↑ MIDI SETUP            │
│ ↓ HELLO MESSAGE         │
└─────────────────────────┘
```
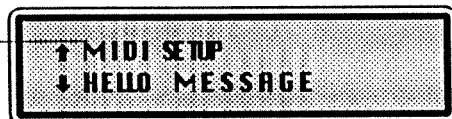
Following are the 4 sub *sub* menus of the MIDI Setup main menu. Use the +1/YES button to get to the first sub *sub* menu (MIDI IN). Once you are in the MIDI IN sub *sub* menu, use the Left and Right Menu Select buttons to get from option to option in each sub menu, and to move from sub *sub* menu to sub *sub* menu. Use the +1/YES and -1/NO buttons to change the values of the variables.

MIDI IN Sub *Sub* Menu

```
┌─────────────────────────────────┐
│ MIDI IN                         │
│ RECEIVE CHN. (OFF,OMNI,1 thru 16)│
└─────────────────────────────────┘
```
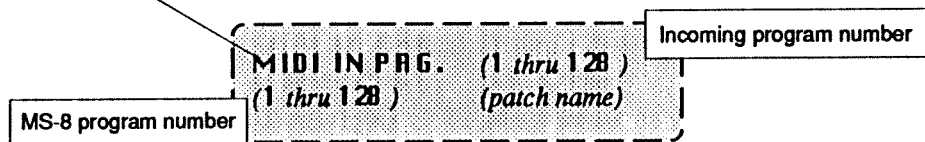
When you are using an external MIDI device to call up programs on the MS-8, you can determine which of the 16 MIDI channels the MS-8 receives information on. The options are:

OFF .... The MS-8 ignores all incoming MIDI information.
OMNI .... Responds to incoming MIDI information on any MIDI channel.
1 thru 16 .... Responds to incoming MIDI info only on the specific channel
                you select. Ignores incoming MIDI info on all other channels.
Use +1/YES and -1/NO buttons to change values (OFF, OMNI, 1, 2, 3, . . . 16)

Function buttons: F1 - OFF, F2 - OMNI, F3 - (no effect), F4 - (no effect)

MIDI IN PRG. (Program) Sub *Sub* Menu

```
┌─────────────────────────────────┐   Incoming program number
│ MIDI IN PRG.   (1 thru 128 )    │
│ (1 thru 128 )   (patch name)    │
└─────────────────────────────────┘
  MS-8 program number
```
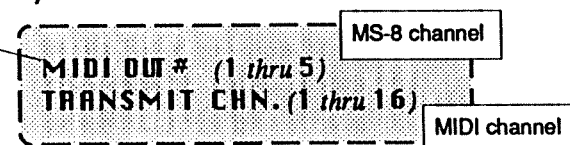
When you are using a MIDI device to control the MS-8, the incoming MIDI program numbers don't have to correspond to the MS-8 program numbers. For instance, when the MS-8 receives program number 48, that could trigger program 113 in the MS-8. Or it could trigger 63, or 19, or any MS-8 program you decide. You can set up each of the incoming 128 program numbers to choose any MS-8 program you want.

    Use the Left and Right Menu Select buttons to move between the options, and the +1/YES and -1/NO buttons to change the values of each.

Function buttons: (for MIDI IN PRG.)

F1 - Incoming Program number increment
F2 - Incoming Program number deccrement
F3 - Program number increment
F4 - Program number decrement

MIDI OUT # (Number) Sub *Sub* Menu

```
┌─────────────────────────────────┐  MS-8 channel
│ MIDI OUT #  (1 thru 5)          │
│ TRANSMIT CHN. (1 thru 16)       │
└─────────────────────────────────┘  MIDI channel
```

Use this menu to assign each of the 5 internal MS-8 channels the MIDI channel on which it will transmit. For example, MS-8 channel 1 could transmit on MIDI channel 9, MS-8 2 could transmit on MIDI channel 3, etc.
    Use Left and Right Menu Select buttons to move between the options, and the +1/YES and -1/NO buttons to change the values of each option.

CAUTION: Make sure you don't set 2 or more channels to the same MIDI channel!
If you do, you will be sending to program change signals to your external device.

Function buttons:

F1 - Channel number increment
F2 - Channel number deccrement
F3 - MIDI channel number increment
F4 - MIDI channel number decrement

MIDI SETUP ! Sub *Sub* Menu

```
┌─────────────────────────────────┐
│ MIDI SETUP !                    │
│ ARE YOU SURE ?                  │
│ INITIALIZED                     │
└─────────────────────────────────┘
```

Be careful with this sub *sub* menu. Once you are in it, if you press the +1/YES button, all the MIDI settings in this group of sub menus reverts to the factory settings, which are:

MIDI IN .... OMNI
MIDI IN PRG. .... Incoming program numbers same as MS-8 program numbers
MIDI OUT # .... MS-8 channel 1 set to MIDI channel 1; all other MS-8 channels
                set to OFF

"HELLO" MESSAGE Menu

```
↑ MIDI SETUP
↓ HELLO MESSAGE
```

With this menu, you can create the message that will appear every time the MS-8 is switched on. Your message can be up to 16 characters long.

Use the Left and Right Menu Select buttons to move from one character position to the next in the name, and use the +1/YES and the -1/NO buttons to change that character (see Character Chart on the Menu Chart page for possible characters). The character that is underlined is the one the +1/YES and -1/NO buttons will change.

Function buttons:

F1 - Deletes the character
F2 - Inserts a blank space *between* characters
F3 - Clears the entire name
F4 - Cancels all [title] edits, and restores the old name

IMPORTANT INFORMATION

Radio and Television Interference
This unit has been verified to comply with the limits of a Class B computing device, pursuant to Subpart 15 of FCC rules. Operation with non certified or non verified equipment is likely to result in interference to radio and TV reception.

Back Up Battery
With a 3V internal lithium battery to keep the memory intact when the power is turned off.
CAUTION: Due not expose the battery to extreme heat or light. Explosion could result.

AC Adaptor
CAUTION: Use only the adaptor provided! Substituting adaptor may damage the MS-8.

Switches
CAUTION: Never connect High Voltages (more than 40V) to Switch Outputs!

Specifications   (Subject to change without notice)
Dimensions .... 484mm x 180mm x 45mm
Weight 1575g
RAM .... 8K bytes
Relays (9) .... 500 mA, 10 Watts maximum
Display .... 32 characters, LED backlit, adjustable contrast
Transformer .... AC 7.5V, 1A / DC 9V, 1.5A
Inputs .... AC 7.5V, 1.5A - MIDI In - (4) Standard footswitches
Output .... MIDI Out - Fender Amplifier
                        (8) Switches (All switch outputs are electrically isolated from the unit)

Global vs. Local Memory

The MS-8 has 128 memory locations (programs). Each of these programs can store a number of pieces of information. This is called Local memory.

In addition, the MS-8 can store information that affects all 128 programs. This is called Global memory. The data in Global memory does not change when you move from program to program, or edit programs.

Local Memory:

SWITCHES .... On/off position of the 8 switches
FENDER AMP OUT ...... Channel, Boost, Chorus, and Reverb status
MIDI OUT .... Program numbers that are transmitted on the 5 different MIDI channels
TITLE EDIT .... Title of Program

Global Memory:

WRITE PROTECT .... Off, All, or Memory
SONGS .... Steps
FOOTSW. .... Function of footswitches
SWITCH .... Switch type
FENDER .... Your amplifier type
MIDI SETUP .... All MIDI info except MIDI OUT data above

HELLO MESSAGE .... Opening message

Factory Settings

Here are all the settings that were put into the MS-8 at the factory:

HELLO MESSAGE.....HI, r u ready?

TITLE EDIT ....All programs titled: *UNUSED*

FENDER AMP OUT...CHN.1, CH. OFF, REU. OFF

WRITE PROTECT......OFF

MIDI SETUP
    MIDI OUT..........MS-8 channel 1 set to MIDI channel 1, all other MS-8 channels (2 through 5) off.
    MIDI IN...........OMNI (receive on all channels)
    MIDI IN PRG. ...Incoming MIDI program numbers equal to MS-8 program numbers.

SONG/FOOTSW. ......SONG1's STEPS are program numbers 1 to 8, SONG2's STEPS are program numbers 9 to 16, and so on, up to SONG 10 (STEPS are program numbers 73 to 80).

FOOTSW.

FTSW.1 ....SONG	RELATIVE	+ 1
FTSW.2 ....SONG	RELATIVE	- 1
FTSW.3 ....STEP	RELATIVE	+ 1
FTSW.4 ....STEP	RELATIVE	- 1
FTSW.5 ....PROGRAM	ABSOLUTE	10
FTSW.6 ....PROGRAM	TOUCH	12
FTSW.7 ....MIDI	TOUCH	15
FTSW.8 ....SWITCH	TOUCH	8

SWITCH

SWITCH1 ....POS.SWITCH		
SWITCH2 ....POS.SWITCH		
SWITCH3 ....POS.SWITCH		
SWITCH4 ....POS.SWITCH		
SWITCH5 ....POS.PULSE	t = 20	
SWITCH6 ....POS.PULSE	t = 20	
SWITCH7 ....POS.PULSE	t = 20	
SWITCH8 ....POS.PULSE	t = 20	

FENDER.................AMP 5