

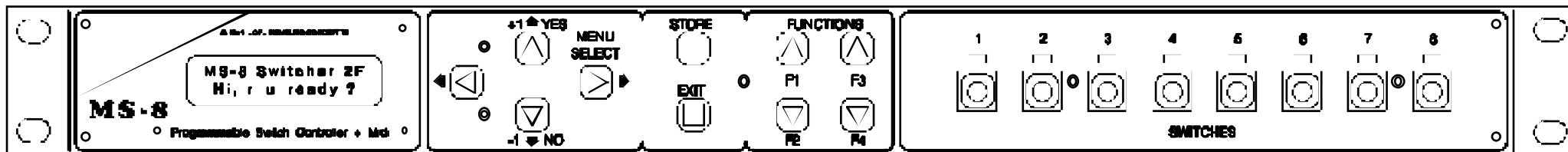
# MS-8

## THE SWITCH-SWITCHER

### No TAPDANCE anymore!

The MS-8 switches up to 17 units at the same time, conventional amps, effect-units, etc., whether if they understand MIDI or not. The MS-8 is perfect on stage, for practicing and recording. Any self-created combination of switch settings can be recalled. A musician can switch all components of his whole setup just by one stomp on one footswitch.

### PROGRAMMABLE SWITCH CONTROLLER + MIDI



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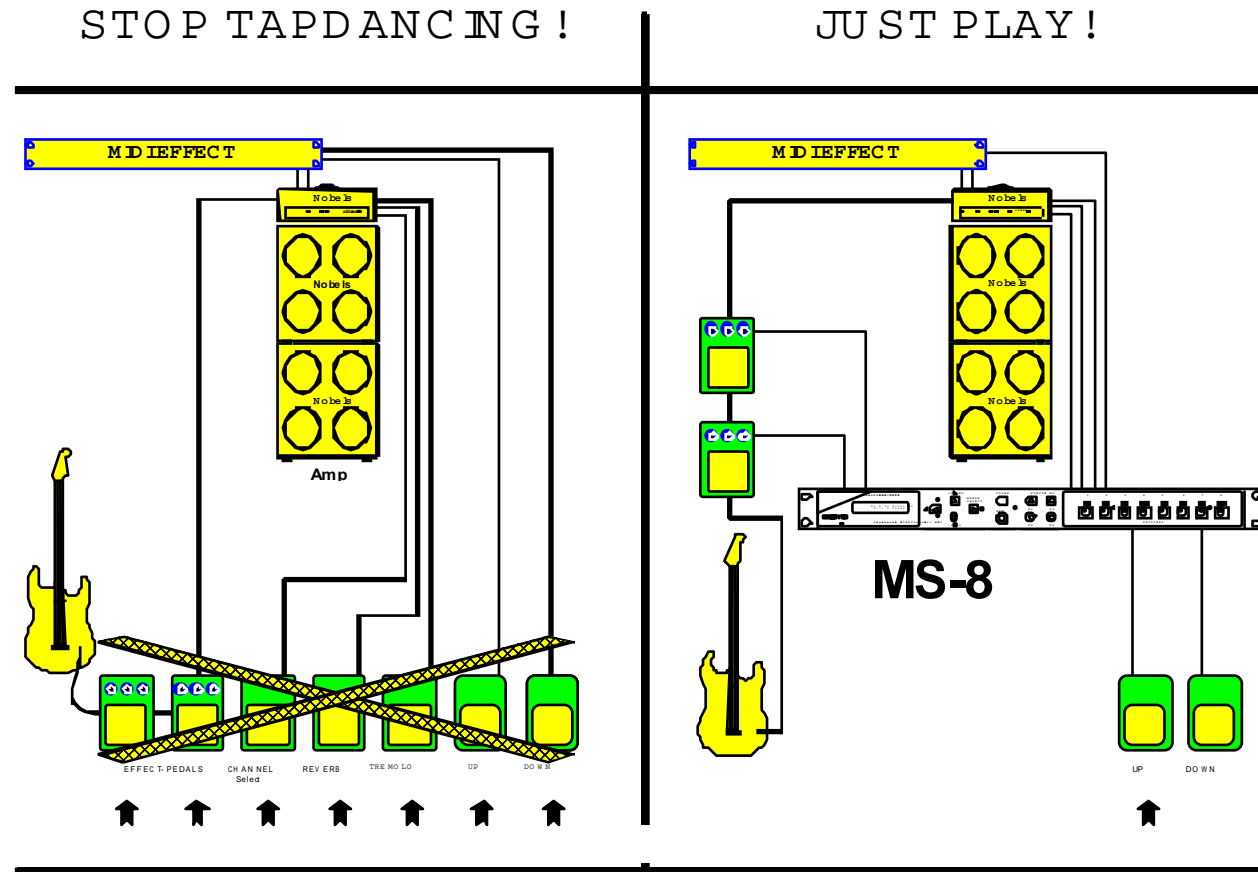
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**Some problems everybody is familiar with:**

You collect more and more small and big effect-units. To change from one sound to another means a wild tapdance on the various footswitches. As it is not possible (In time) to switch all units, many musicians only use a small selection of their effect-units. Interesting and unique sounds could not be used in live performance. The MS-8 had been developed to enable musicians to use all possible sound creations on stage, in rehearsal sessions and studios. With a simple stomp on one footswitch the MS-8 is capable of switching up to eight conventional units, plus MIDI equipment.

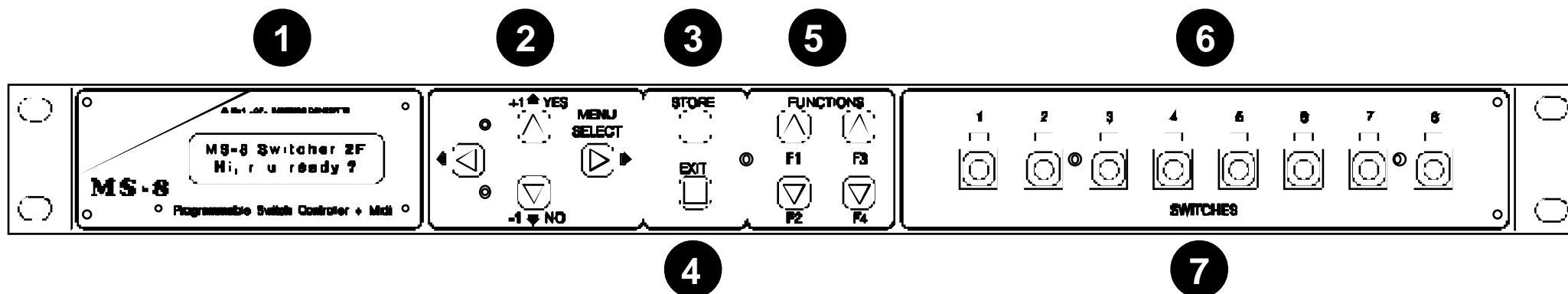
The MS-8 is equipped to switch advanced models of several big brand names by offering special connectors.

How does it work? The following pages will tell you how you can simplify your setup and how you can use sound creations without any trouble - even if it is only for one note. Time for music: Just play guitar and leave the switching work to the MS-8. **Your N°1-OF-HAMBURG team.**



You have to switch all these footswitches to change from one sound to another.....or just one of these

# 1 Front of the MS-8



## 1 Front of the MS-8

### (1) The LC-DISPLAY

To communicate with the MS-8 please follow the instructions of the LC-DISPLAY (1). The data in each menu shows data which can be changed by pressing one of the CURSOR keys (2) [↑], [↓][←] and [→], or the functionkeys (F1 - F4) (5). The viewing angle of the LC-DISPLAY is adjustable, by using the DISPLAY CONTRAST control (16), located on the rear. This is very helpful if the MS-8 is mounted high in a rack or low on a small amp.

### (2) The CURSOR keys

With the CURSOR keys [←] and [→] you can select the functions or parameters of the MS-8, and with the CURSOR keys [↑] and [↓] you can change the values of those parameters.

### (3) The "STORE" key

With this key you can store or copy programs. In some menus the "STORE" key is used for special functions, to make handling easier. (see corresponding chapters)

### (4) The "EXIT" key

With this key you can interrupt a store or copy function without changing anything. With the CURSOR keys (2) you select a menu ("Go into" a menu) and with the "EXIT" key (4) you leave it ("Go out" of a menu).

### (5) The FUNCTION keys (F1 - F4)

These four keys have the same functions as the connected FOOTSWITCHES (F1-F4) (13) at the rear of the MS-8. (If the MS-8 is in the "PLAY") In some menus these keys are used for special functions, to make handling easier. (see corresponding chapters)

### (6) The LED-lamps above key "SWITCHES 1 - 8"

show whether a connected unit is activated or is not activated. In non activated state the LEDS are dimmed so that you still can see them in the dark. Flashing of one LED indicates special functions. (see corresponding chapters)

### (7) The key "SWITCHES 1 - 8"

These keys control the switches / relays. Also you can select special functions for these keys in some menus.

## 2 Rear of the MS-8

### (8) The ON / OFF SWITCH

This key switches the MS-8 ON and OFF.

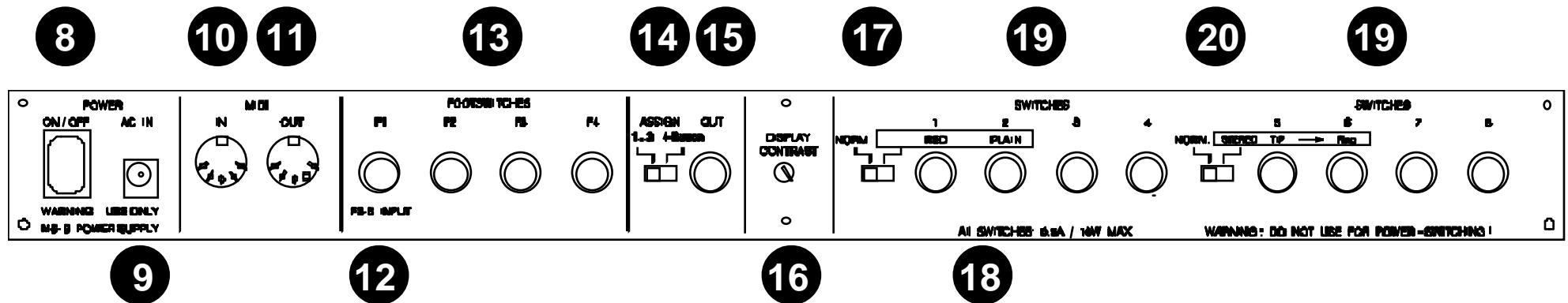
### (9) The AC-IN jack

Connect the power supply unit (PSU) to this jack. You can use either a PSU with AC 7.5V / 1A or DC 10V / 1.2 A.

**WARNING:** Other PSU may not work properly or could damage the MS-8.

## 2 Rear of the MS-8

### Front / Rear of the MS-8



#### (10) The MIDI IN jack

This jack connects units which can send MIDI PROGRAM CHANGE DATA.  
E.g.: Sequencers, MIDI footcontrollers, keyboards, etc.

#### (11) MIDI OUT jack

This jack connects to any units which can receive MIDI PROGRAM CHANGE DATA.

#### (12) RC-8 INPUT jack

The RC-8 remote controller can be connected to this jack with a standard stereo cable. (The RC-8 is a optional footcontroller for the MS-8 with 8 footswitches and a big 4 digit display).

**NOTE: If you do not use a RC-8 controller you must use a standard mono cable!**

#### (13) FOOTSWITCH Jacks F1 - F4

The MS-8 also can be controlled by inexpensive footswitches. Up to 4 remote footswitches can be connected to the 4 FOOTSWITCHES jacks F1 - F4 on the back panel. For correct functioning **you must use** momentary switches. The type which has closed contact during pressing and open contact in released state.

#### (14) ASSIGN switch

This switch matches the MS-8 to various Fender (\*1) amp models. (F-AMP)

#### (15) OUT jack

Fender amps of the new generations can be connected to this special jack.

#### (16) DISPLAY CONTRAST control

This control adjusts the viewing angle of the LC-DISPLAY (1).

#### (17) NORM. - RED / PLAIN slide switch

This switch matches the MS-8 to various Fender (\*1) amp models of the old generation and prepares the 2 jack SWITCHES 1 + 2 (18) for these amps.

#### (18) RED / PLAIN jacks

Fender amps of the old generation can be connected to these jacks with 2 standard stereo cables.

#### (19) "SWITCHES 1 - 8" jacks

All amplifiers, effect-units, etc. which have an input for a remote footswitch can be connected to these 8 jacks. All connected units can now be controlled by the "SWITCHES 1-8" on the front panel of the MS-8.

#### (20) NORM. - STEREO slide switch

This switch matches the MS-8 to various Marshall, Mesa Boogie (\*1), etc. models. The jack "SWITCHES 6" now works in stereo mode, controlling 2 functions (Like Channel switching and Reverb)

(\*1) Fender, Marshall and Mesa Boogie are registered trademarks.

### 3 Connections

#### You can control with the MS-8:

- up to 8 units which have conventional switching
- + 1 Fender amp with up to 4 switching functions
- + up to 5 MIDI units with selectable MIDI TRANSMIT CHANNELS (1-16)

#### You can control the MS-8:

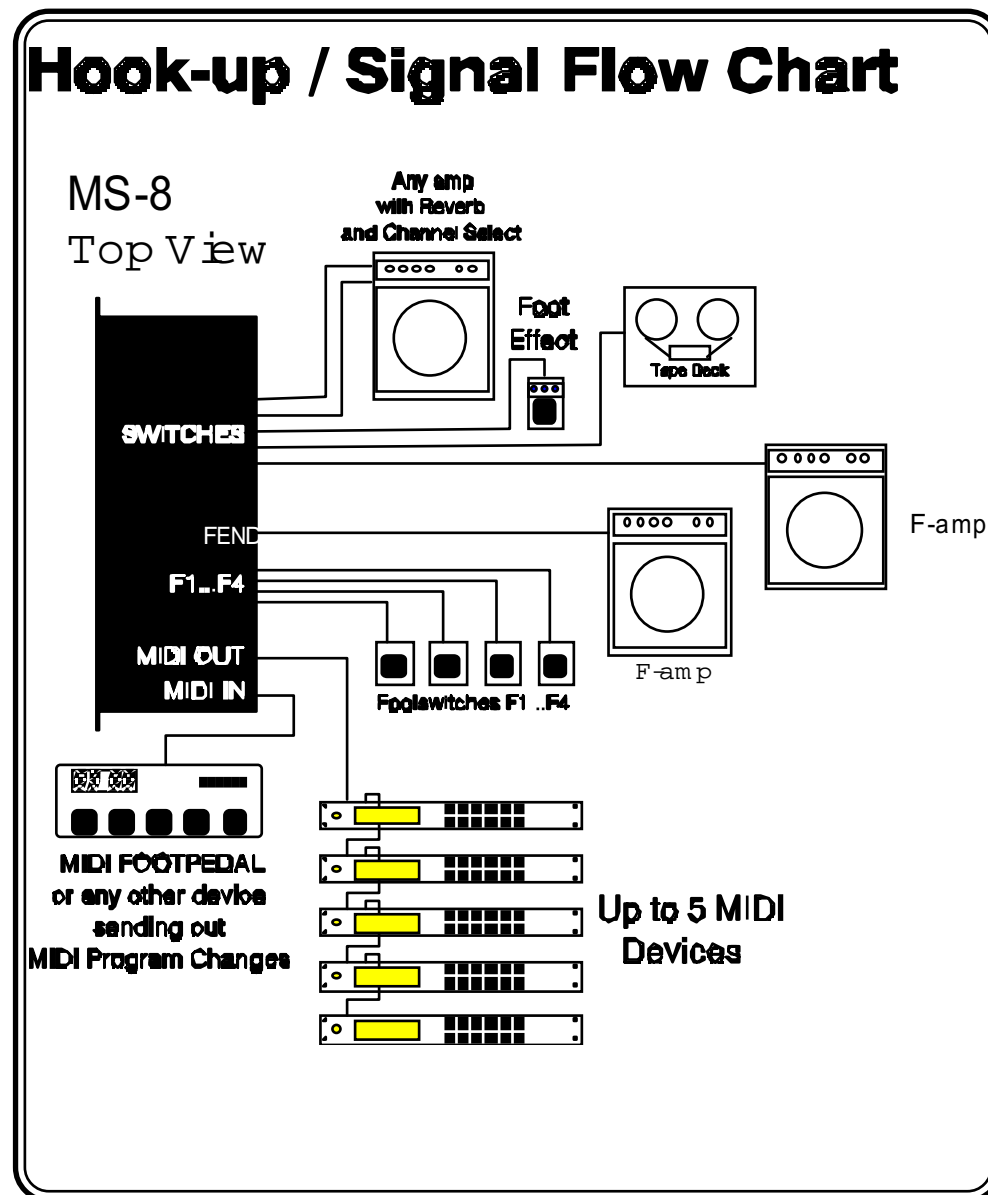
- by the 4 FUNCTION KEYS (F1-F4) on the front panel
- by inexpensive standard momentary footswitches
- by incoming MIDI signals
- by the optional RC-8 Remote Controller

You can create up to 128 user PROGRAMS.  
Each PROGRAM is a combination of pre-selected switch settings.

#### For example:

MS-8 PROGRAM	Amp-channel	Distortion-pedal	Reverb	Send MIDI
1	Clean	OFF	ON	PRG.Nº.: 30
2	Clean	ON	OFF	PRG.Nº.: 92
3	Overdrive	OFF	OFF	PRG.Nº.: 12
.....				
128	.... etc.			

Example for possible connections: All units can be connected and controlled by the MS-8 at the same time.



# 4 Controls

## The CURSOR keys:

1 In the "PLAY" mode

you can use the keys for selecting one of the 128 PROGRAMS or to select the menus.

The [↑] key counts the PROGRAMS up to the next PROGRAM NUMBER each time the key is pressed.

The [↓] key counts the PROGRAMS down to the previous PROGRAM NUMBER each time the key is pressed .

If you hold one of these keys down the PROGRAM will scroll up and down (fast!).

**ATTENTION: If you are in the "EDIT" mode the changed data will not be stored and the changes will be lost!**



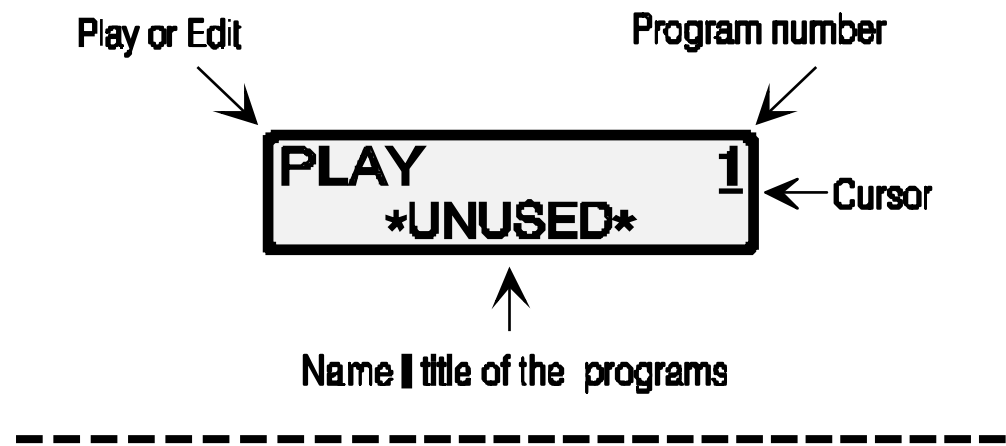
The [←] key select the menus each time the key is pressed.

The [→] key also select the menus each time the key is pressed but from the other direction

## 2 In the "EDIT" mode

or in the menus you can use the four CURSOR keys to change the parameter.

**Mainly:** With the keys [←] and [→] you select the POSITION of the CURSORS (CURSOR = Line under the display) and with the keys [↑] and [↓] the VALUE of the FUNCTION or confirm with: "YES" or "NO".

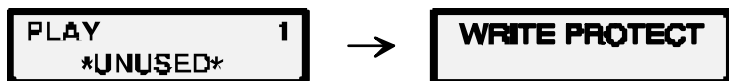


# Internal memory

## 1 "STORE" PROGRAMS (1-128)

If you change anything on a "PLAY" PROGRAM (1-128) the DISPLAY will change from "PLAY" to "EDIT".

If the message "WRITE PROTECT" appears on the display instead of "EDIT"



you can not overwrite the data.

This is the memory protection feature. If you want to make any changes you have to change the "WRITE PROTECT" to OFF. See also chapter "MEMORY PROTECTION".

If you want to store a PROGRAM (1-128) you have to press the "STORE" key once. Now the LED of the key "SWITCHES 1-8" are flashing and the display shows:

If you want to move the actual PROGRAM (1-128) to another, you have to press one of the keys [▲] or [▼] until you reached the desired PROGRAM NUMBER.

A second press on the "STORE" key finally stores the PROGRAM.

*You can immediately interrupt the "STORE" process by pressing the "EXIT" key.*

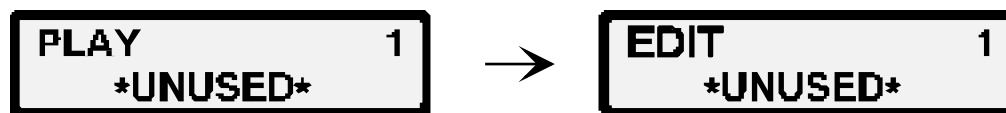
## 2 "COPY" PROGRAMS (1-128)

To copy a PROGRAM (1-128) to another location you have to press the "STORE" key once. Now the LED of the key "SWITCHES 1-8" are flashing.

To move the actual PROGRAM (1-128) to the desired PROGRAM (1-128), you have to press the one of the [▲] or [▼] keys until you reached the desired PROGRAM NUMBER.

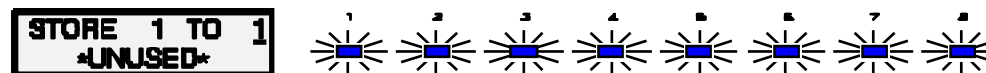
A second press on the "STORE" key stores the PROGRAM (1-128). The LED are stop flashing.

*You can immediately stop the store process by pressing the "EXIT" key.*



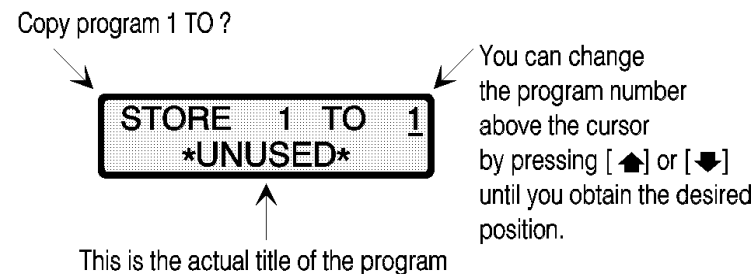
The display shows "EDIT" if you change anything on the actual program!

After pressing the "STORE" key the LED "SWITCHES 1-8" are flashing and the display shows: (E.g.) "STORE 1 TO 1"



This is your last chance to leave the store process. You interrupt it if you press the "EXIT" key!

If you press the "STORE" key twice the actual program (Number after "STORE") will be stored to the desired PROGRAM NUMBER (Number after "TO"). This program can be changed to another location if you change it with one of the CURSOR keys [▲] or [▼].





# Internal memory

Internal memory

## 3 Memory protection

The internal memory of the MS-8 can be protected against accidental overwriting.

To activate or disable the memory protection you have to select the "WRITE PROTECT" menu. To jump into this menu you have to press the CURSOR key [↓] once.

With one of the CURSOR keys [↑] or [↓] you can change the actual state.

### In the function:

#### "WRITE PROTECT OFF"

the memory protection is disabled.

#### "WRITE PROTECT MEMORY"

changing or overwriting the 128 PROGRAMS (1-128) is not possible.

#### "WRITE PROTECT ALL"

changing or overwriting the 128 PROGRAMS (1-128) is not possible and the functions of the SWITCHES 1-8 on the front are protected.

### Easy programming with the functionkeys (F1-F4) :

-	F1	=	WRITE PROTECTOFF	-	
F2	=	WRITE PROTECTMEMORY	-	F3	
=	WRITE PROTECTALL	-	F4	=	
No function					

**Note:** *Only using the "EXIT" key to leave the menu will store the changes into the internal memory. If you switch the MS-8 off before pressing the "EXIT" key the MS-8 can not write into the internal memory and the data is lost.*

Main menu:

^ MIDI - OUT PROG.  
 v WRITE PROTECT

**WRITE PROTECT  
OFF**

↑  
OFF, MEMORY or ALL

# Switches / Relays

## 1 The function of the Switches / Relays

With the keys "SWITCHES 1-8" you can create your own switch settings. But it depends on which switch is needed for your device. There are four different kinds of switches:

- positive or negative latched type switches
- positive or negative momentary switches.

The LED "SWITCHES 1-8" only show the active or passive state of the connected unit.

Bright indicates the active state and dim indicates the passive state. (If the LEDs are dimmed you can see them better in the dark!) So you have to configure the switches first.

Also you can adjust the "PULSE TIME" between 1 and 100 ms.

The LEDs are showing the state:

- **Bright** = **Active**
- **Dim** = **Passive**

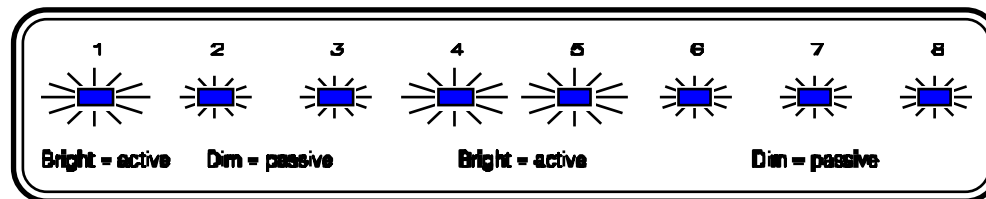
**NOTE:** If you change one or more switches in the "PLAY" mode the DISPLAY immediately shows "EDIT" to indicate the difference between the stored data.

**TIP:** Try to find out the shortest PULSE TIME. All momentary switches are set to 20ms after the "FACTORY SETUP". If some units will not work properly increase the time until the switching is save. Most computer equipped units needs longer time to switch.

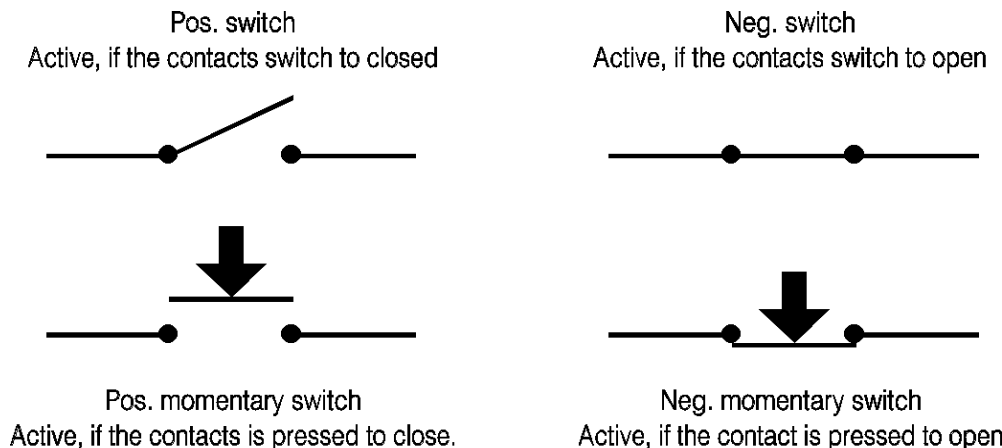


Main menu:

LEDS on the front of the MS-8



Simulation of the SWITCHES / RELAYS:



# Switches / Relays

## 2 Setting up the Switches / Relays

To change the function of the switches / relays you have to select the SWITCH/F-AMP menu. (From the "PLAY" menu: Press the CURSOR key [←] twice.)

To jump into the menu press the CURSOR key [↓] once.

The value above the CURSOR, can be changed with one of the CURSOR keys [↑] or [↓], until the desired mode is achieved.

With one of the CURSOR keys [←] or [→] you can change the position of the CURSORS to action changes.

Also the flashing LED shows the number of the relays.

You also can use "SWITCHES 1-8" to select the desired switches / relays. After choosing, each time the same key is pressed will switch through all the four possible functions.

With the key "STORE" you can directly change the STATUS of the desired SWITCH.

### Easy programming with the functionkeys (F1-F4) :

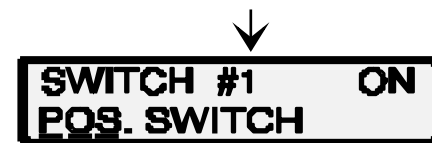
- F1 = Switches the displayed SWITCH to POS. SWITCH
- F2 = Switches the displayed SWITCH to NEG. SWITCH
- F3 = Switches the displayed SWITCH to POS. PULSE
- F4 = Switches the displayed SWITCH to NEG. PULSE

**Note:** Only using the "EXIT" key to leave the menu will store the changes into the internal memory. If you switch the MS-8 off before pressing the "EXIT" key the MS-8 can not write into the internal memory and the data is lost.

Main menu:



Number of the switch / relays:  
You can choose it by pressing  
one of the SWITCHES 1 - 8 or  
with the cursor keys



Status / switch  
ON or OFF.  
You can toggle  
it by pressing the  
"STORE" key

Function of the switch / relays



Pulse time adjustable  
from 1ms to 100ms

Function of the Relays / Switch

# Footswitches / "SONGS"

## 1 The function of the footswitches

You can control the MS-8 with simple momentary footswitches. These momentary switches will give contact while depressed and will interrupt again after release.

**NOTE:** Other footswitches can not work proper.

The function of the connected footswitches can be programmed.

### The following functions are possible for each of the footswitches:

- |  |                      |
|--|----------------------|
| 1. Choosing direct a PROGRAM (1-128)   | ("PROGRAM")          |
| 2. Counts a PROGRAM (1-128) NUMBER up  | ("PROGRAM RELATIVE") |
| 3. Counts a PROGRAM (1-128) NUMBER down  | ("PROGRAM RELATIVE") |
| 4. Choosing direct a PROGRAM (1-128) only while pressing the footswitch          | ("PR-TOUCH")         |
| 5. Counts a SONG NUMBER up   | ("SONG" RELATIVE")   |
| 5. Counts a SONG NUMBER down   | ("SONG" RELATIVE")   |
| 7. Choosing a SONG   | ("SONG" ABSOLUTE")   |
| 8. Counts a STEP NUMBER up   | ("STEP RELATIVE")    |
| 9. Counts a STEP NUMBER down   | ("STEP RELATIVE")    |
| 10. Choosing a STEP.   | ("STEP ABSOLUTE")    |
| 11. Choosing a SWITCH.   | ("SWITCH TOGGLE")    |
| 12. Choosing a SWITCH only while pressing the footswitch                         | ("SWITCH TOUCH")     |
| 13. Transmitting of MIDI PROGRAM CHANGE data, only while pressing the footswitch | ("MD-TOUCH")         |

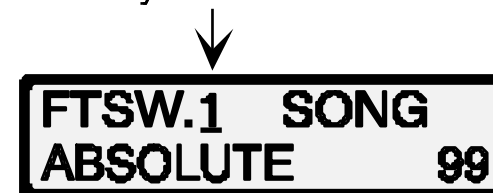
### "FACTORY SETUP":

After "FACTORY SETUP" the four footswitches are set to "SONG" up and down and "STEP" up and down. To change it you have to enter the SONG/FOOTSW. menu.

Main menu:



The Number of the footswitch can be chosen by one of the SWITCHES 1 – 8 or the cursor keys.



Function of the footswitch

**ATTENTION:** If you do not use the optional RC-8 remote controller you can not use the footswitches 5 to 8.

# Footswitches / "SONGS"

# Footswitches / "SONGS"

## 2 To setup the footswitches

You have to enter the SONGS/FOOTSW. menu.  
 (From the "PLAY" menu: Press the CURSOR key [←] twice.)

To jump into the menu press the CURSOR key [↑] once.

The value above the CURSOR, can be changed with one of the CURSOR keys [↑] or [↓], until the desired mode is achieved.

With one of the CURSOR keys [←] or [→] you can change the position of the CURSORS to activate.

Also you can select the desired footswitch with the key SWITCHES (1-8).

**ATTENTION:** If you do not use the optional RC-8 remote controller you can not use  
 t h e  
 footswitches 5 to 8.

### Easy programming with the function keys (F1-F4) :

- F1 = Change the function of the footswitch (1 - 10)
- F2 = Change the function of the footswitch (10 - 1)
- F3 = Counts the values up
- F4 = Counts the values down

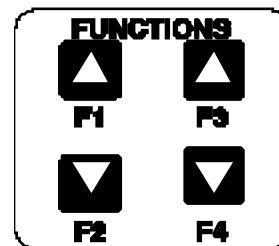
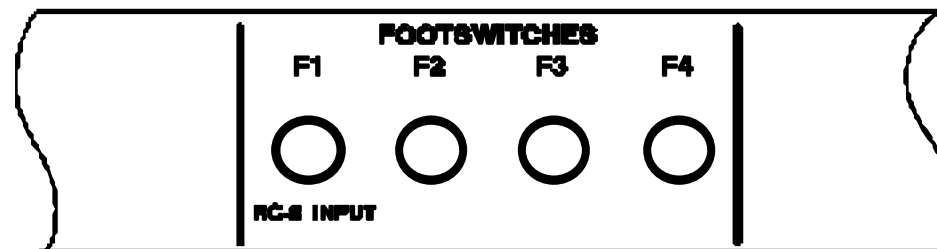
**Note:** Only using the "EXIT" key to leave the menu will store the changes into the internal memory. If you switch the MS-8 off before pressing the "EXIT" key the MS-8 can not write into the internal memory and the data is lost.

**TIP:** The ground of the four footswitches is on the same wire, so that you can put them on together one side if you want to build your own footswitch.

Main menu:



View of the rear:



After factory setup the four footswitches are set to "SONG" up and down and "STEP" up and down. To change this you have to enter the SONG/FOOTSW. menu.

Function keys (F1 - F4) on the front of the MS-8

# FOOTSWITCHES / "SONGS"

## 3 The "SONG" mode

The MS-8 contains up to 100 "SONGS"

A "SONG" is a combination or a chain of up to 8 "STEPS".

Each "STEP" can contain one of the 128 PROGRAMS (1-128)

In the first menu "PLAY" you can use the function keys (F1-F4) to select the "SONGS" and "STEPS".

*("FACTORY SETUP" - can be changed!)*

**The function key (F1) counts a "SONG" up, and (F2) down. The function key (F3) counts a "STEP" up, and (F4) counts it down.**

"STEPS" which are not used (—EMPTY—) will be ignored in the "PLAY" mode. After reaching the last STEP NUMBER select the first STEP NUMBER with the selected again and vice versa.

If all "STEPS" set to (—EMPTY—) the "SONG" will be ignored in the "PLAY" mode.

**"FACTORY SETUP": All "STEPS" and "SONGS" 11 - 100 are set to —EMPTY—.**

You can control the "SONGS" and "STEPS" with simple momentary footswitches.

Main menu:



	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7	STEP 8
<b>SONG 1</b>	Program17	Program3	Program99	Program23	Program3.	--EMPTY--	--EMPTY--	Program22

Construction of the "SONGS":

**SONG 2**

Each SONG can contain up to 8 STEPS.  
 Unused STEPS can be set to "--EMPTY--".  
 (Just press the "STORE" key!)

**SONG 100**

If all STEPS are set to "--EMPTY--" it is not possible to recal the SONG in the PLAY mode.

# FOOTSWITCHES / "SONGS"

# FOOTSWITCHES / "SONGS"

## 4 How to program a "SONG"

To program a "SONG" you have to enter the SONGS/FOOTSW. menu.

To jump into the menu, you have to press the CURSOR key [↑] once.

The CURSOR key [↑] counts the PROGRAM NUMBER up,  
the CURSOR key [↓] counts the PROGRAM NUMBER down.

"STEPS" which are not be used must be set to (—EMPTY—).

To do this simply press the "STORE" key. It toggles between the PROGRAM NUMBER and (—EMPTY—).

If there are "STEPS" set to (—EMPTY—) they will be ignored in the "PLAY" mode.

If all "STEPS" in a "SONG" are set to (—EMPTY—) the "SONG" will be ignored in the "PLAY" mode.

Naturally it is possible that different "STEPS" contain the same PROGRAM NUMBER

If you select a "SONG" it will start with the first "STEP 1".

If the first "STEP" is set to (--EMPTY--) you will get the next possible "STEP" .

After selecting "STEPS" or "SONGS" the DISPLAY shows the actual "SONG" and "STEP" number, together with the title of the relevant PROGRAM for approx. 1 second.

Then the DISPLAY will show the PROGRAM (1-128) number and TITLE once more. ("PLAY" mode).

**Note:** Only using the "EXIT" key to leave the menu will store the changes into the internal memory. If you switch the MS-8 off before pressing the "EXIT" key the MS-8 can not write into the internal memory and the data is lost.

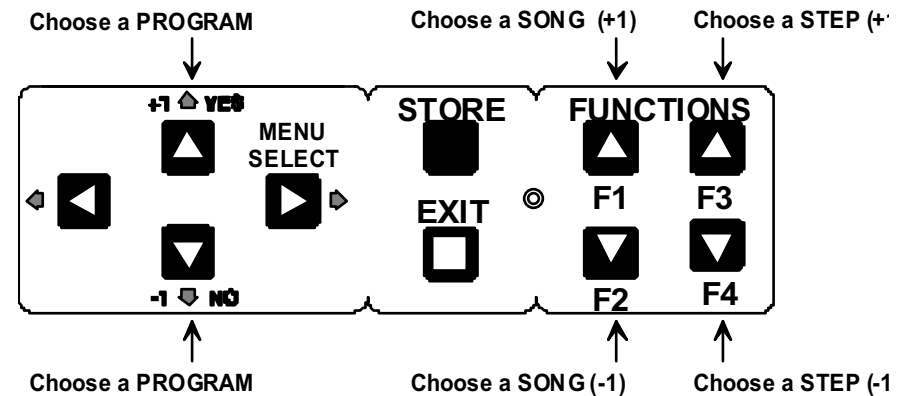
In this menu it is possible to give all PROGRAMS (1-128) their own individual names.

Main menu:

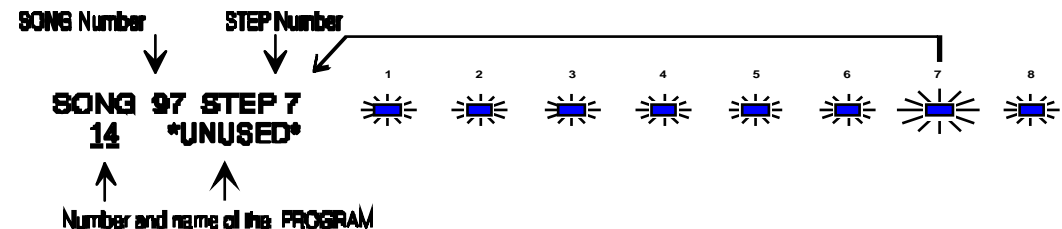


### How to program SONGS:

- 1 Choose a SONG
- 2 Choose a STEP
- 3 Choose a PROGRAM or
- 4 press the "STORE" key to set it to "--EMPTY--"!



View of the front:



# Title / naming the programs

You can use a maximum of eight characters.

The CURSOR key [↑] scrolls up through all possible characters.

The CURSOR key [↓] scrolls down through all possible characters.

If you hold one of the CURSOR key [↑] or [↓] the character changes will repeat automatically up or down.

The CURSOR key [←] changes the position of the underline to the left.  
 The CURSOR key [→] changes the position of the underline to the right.

**Easy programming with the functionkeys (F1-F4) :**

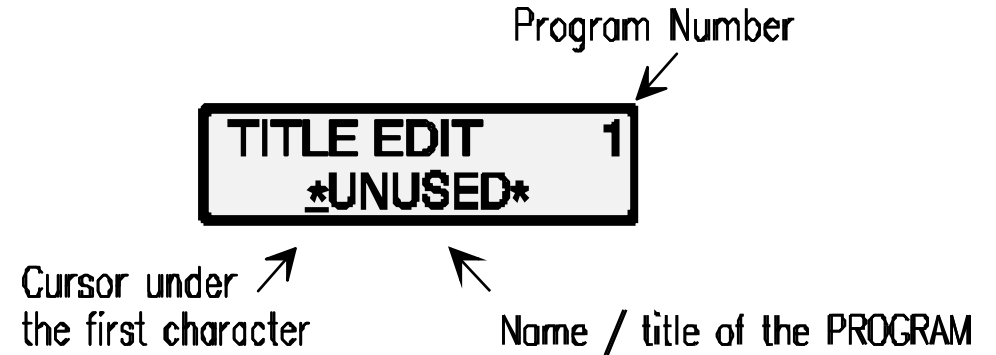
- F1 = deletes a character
- F2 = inserts a character
- F3 = deletes all character
- F4 = restores the stored name / UNDO-function

You can use the following character:

Capital-character:    ABCDEFGHIJKLMN**OP**QRSTUVWXYZ  
 Small-character:     abcdefghijklmnopqrstuvwxy**z**  
 Numbers:            0123456789  
 Other character:    -+\*/=!( )#.

***A change of the PROGRAM (1-128) name will change the actual PROGRAM (1-128).  
 You must store it to prevent loss of data.***

Main menu:





## "HELLO" message / sign your MS-8

Title / "HELLO" message

In this menu you can program any message or information up to 16 character.

The "HELLO" message appears after the unit has been on for approx. 2 seconds.

The CURSOR key [↑] scrolls up through all possible characters.

The CURSOR key [↓] scrolls down through all possible characters.

If you hold one of the CURSOR keys [↑] or [↓] down characters will scroll up or down.

The CURSOR key [←] changes the position of the underline to the left.

The CURSOR key [→] changes the position of the underline to the right.

### Easy programming with the function keys (F1-F4) :

- F1 = deletes a character
- F2 = inserts a character
- F3 = deletes all character
- F4 = restores the stored name / UNDO-function

You can use the following character:

Capital-character: ABCDEFGHIJKLMNOPQRSTUVWXYZ

Small-character: abcdefghijklmnopqrstuvwxyz

Numbers: 0123456789

Other character: -+\*/=!( )#.

**Note:** Only using the "EXIT" key to leave the menu will store the changes into the internal memory. If you switch the MS-8 off before pressing the "EXIT" key the MS-8 can not write into the internal memory and the data is lost.

In the F-AMP OUT menu you can setup the MS-8 to match your Fender™ amp (= F-amp), new generation.

You only can use F-AMPS which using one MONO cable.

Main menu:

↑ MIDI SETUP  
 ↓ HELLO MESSAGE

-----

"HELLO" MESSAGE  
 Hi, r u ready ?

Cursor under  
the first character

# 1 F-AMP SETUP

The connection to these amps are located on the rear of the MS-8.

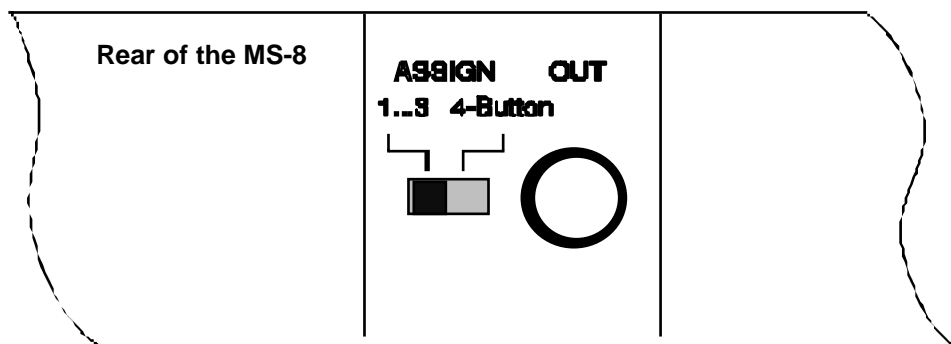
At first you have to set the "ASSIGN" SWITCH also on the rear to the correct position.

### Setup the "ASSIGN" SWITCH:

For all F-AMPS with 1 to 3 buttons on the included footswitch set "ASSIGN" to position "1...3"

For all F-AMPS with 4 buttons on the included footswitch set "ASSIGN" to position "4-Button".

You have to select the correct type of your F-AMP in the menu SWITCH/F-AMP. After this procedure you always get the correct menu on the LC-DISPLAY.



To jump into the SWITCH/F-AMP menu you must press the CURSOR key [↓] once.

Press the the CURSOR key [→] several times until you get the menu.

Then select the correct type and leave the menu by using the "EXIT" key.

## 2 List of the F-Amps / New generation.

Released June 1992

To switch a connected F-AMP you have to select the F-AMP OUT menu:

Footswitch Type	Footswitch Options	Amp Type	Display
ASSIGN SWITCH = "4-BUTTON" → 4-Button	Channel-1 Channel-2 Boost Reverb Chorus	Power Chorus	FENDER AMP5 BOOST CHO. REV.
3-Button	Channel-1 Channel-2 Boost Reverb	Pro 185 Stage 185 London 185 Deluxe 85	FENDER AMP4 BOOST --- REV.
ASSIGN SWITCH = "1...3" → 2-Button	Channel-1 Channel-2 Reverb	The Twin Eighty-Five Dual Showman SR Head	FENDER AMP3 --- --- REV.
2-Button	Channel-1 Channel-2 Chorus	Princeton Chorus M-80 Chorus	FENDER AMP2 --- CHO. ---
1-Button	Channel-1 Channel-2	Super 60 M-80 Super 112 Super 210	FENDER AMP1 --- --- ---

# 3 F-AMP programming

## F-AMP setup / list / programming

To jump into the menu you have to press the CURSOR key [↕] once.

Now you can select the switching functions with the CURSOR keys or the four functionkeys (F1-F4) for each PROGRAM (1-128).

**A change of the PROGRAM (1-128) name will change the actual PROGRAM (1-128). You must store it to prevent lost of data.**

### Easy programming with the functionkeys (F1-F4) :

Footswitch with 4 buttons:

- F1 = Selects the channel CHN.1 or CHN.2 or BOOST
- F2 = Selects the chorus: CH. ON or CH. OFF
- F3 = No function
- F4 = Selects the reverb REV. ON or REV. OFF

Footswitch with 3 buttons:

- F1 = Selects the channel CHN.1 or CHN.2 or BOOST
- F2 = No function
- F3 = No function
- F4 = Selects the reverb REV. ON or REV. OFF

Footswitch with 2 buttons:

- F1 = Selects the channel CHN.1 or CHN.2
- F2 = No function
- F3 = No function
- F4 = Selects the reverb REV. ON or REV. OFF

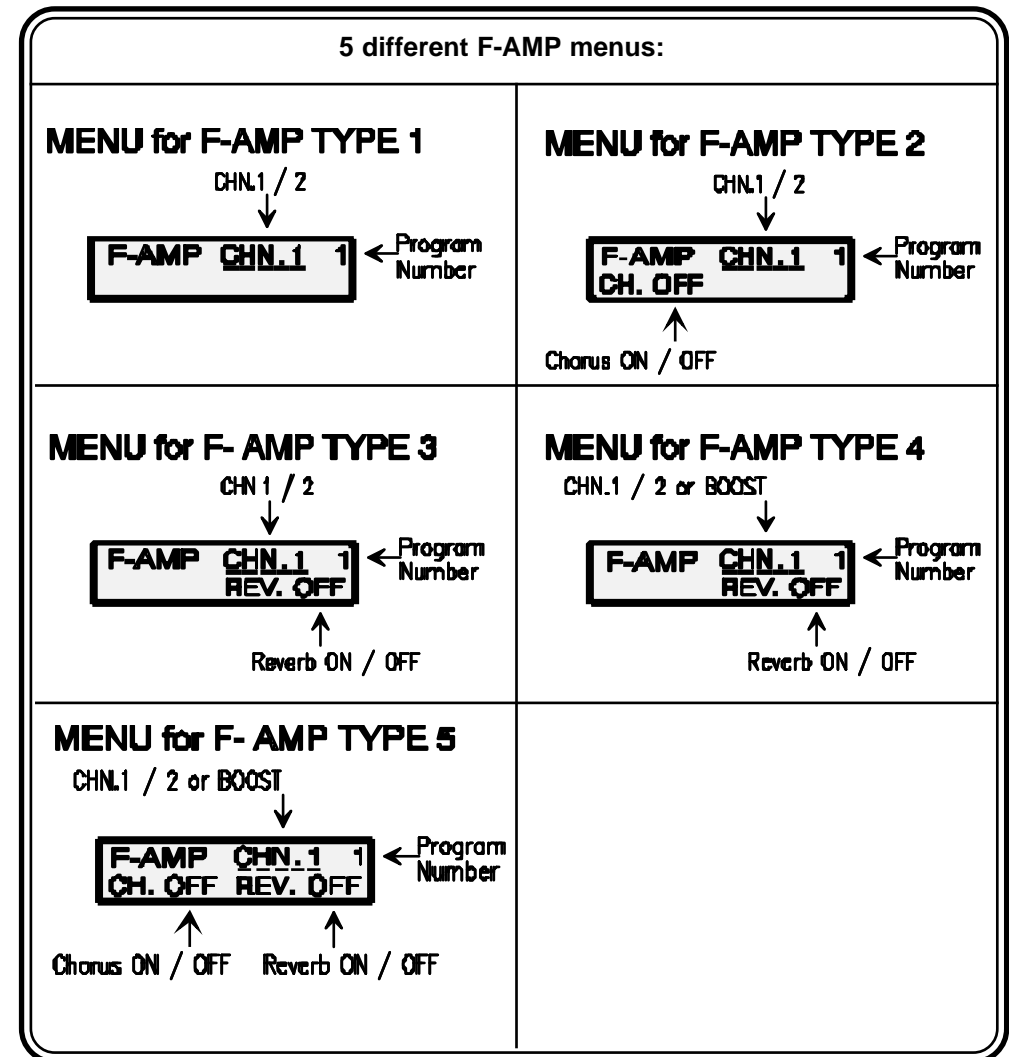
Footswitch with 2 buttons:

- F1 = Selects the channel CHN.1 or CHN.2
- F2 = Selects the chorus: CH. ON or CH. OFF
- F3 = No function
- F4 = No function

Footswitch with 1 button:

- F1 = Selects the channel CHN.1 or CHN.2
- F2 = No function
- F3 = No function
- F4 = No function

Main menu:



# MIDI

## 1 MIDI IN - Select the MIDI RECEIVE CHANNEL

To select the MIDI RECEIVE CHANNEL you have to go to the "MIDI SETUP" menu.  
(From the "PLAY" menu: Press the CURSOR key [←] once.)

To jump into the menu also press the CURSOR key [↑] once.

Now you can select the desired MIDI RECEIVE CHANNEL 1-16 with one of the CURSOR keys [↓] or [↑].

If you set the MIDI RECEIVE CHANNEL to "OMNI" the MS-8 will accept all MIDI PROGRAM CHANGES no matter which MIDI TRANSMIT CHANNEL is selected by the connected MIDI device.

If you set the MIDI RECEIVE CHANNEL to "OFF" the MS-8 will not accept any MIDI PROGRAM CHANGES from a connected MIDI device.

The CURSOR key [↑] counts the MIDI RECEIVE CHANNEL NUMBER up and the CURSOR key [↓] counts the MIDI RECEIVE CHANNEL NUMBER down.

Between 16 and 1 you will find the "OMNI" and "OFF" option.

*If you hold down one of the CURSOR key [↑] or [↓] for a longer time the values will automatically scroll up or down.*

### Easy programming with the functionkeys (F1-F4) :

- F1 = The MIDI RECEIVE CHANNEL will set to "OMNI"
- F2 = The MIDI RECEIVE CHANNEL will set to "OFF"
- F3 = No function
- F4 = No function

**Note:** Only using the "EXIT" key to leave the menu will store the changes into the internal memory. If you switch the MS-8 off before pressing the "EXIT" key the MS-8 can not write into the internal memory and the data is lost.

Main menu:

↑ MIDI SETUP  
↓ HELLO MESSAGE

MIDI IN  
RECEIVE CHN OMNI

↑  
MIDI RECEIVE CHANNEL  
VALUES: 1-16, OFF and OMNI

### Setup the MIDI RECEIVE CHANNEL.

- The MS-8 accepts MIDI PROGRAM CHANGES on the selected MIDI RECEIVE CHANNEL (1-16)
- The MS-8 accepts all MIDI PROGRAM CHANGES = "OMNI".
- The MS-8 accepts no MIDI PROGRAM CHANGES = "OFF".

# MIDI

## 2 MIDI MAPPING programming

To select the MIDI RECEIVE CHANNEL you have to go to the "MIDI SETUP" menu.  
(From the "PLAY" menu: Press the CURSOR key [←] once.)

To jump into the MIDI IN menu also press the CURSOR key [↑] once.  
To enter the MIDI IN PRG. menu press the CURSOR key [→] once.

With this table you can redirect MIDI PROGRAM CHANGE data.

E.g.: If any MIDI device sends out a MIDI PROGRAM CHANGE 12 the MS-8 will change to any other PROGRAM (1-128) which is programmed instead of PROGRAM 12.

Different MIDI PROGRAM CHANGES can use the same PROGRAMS!

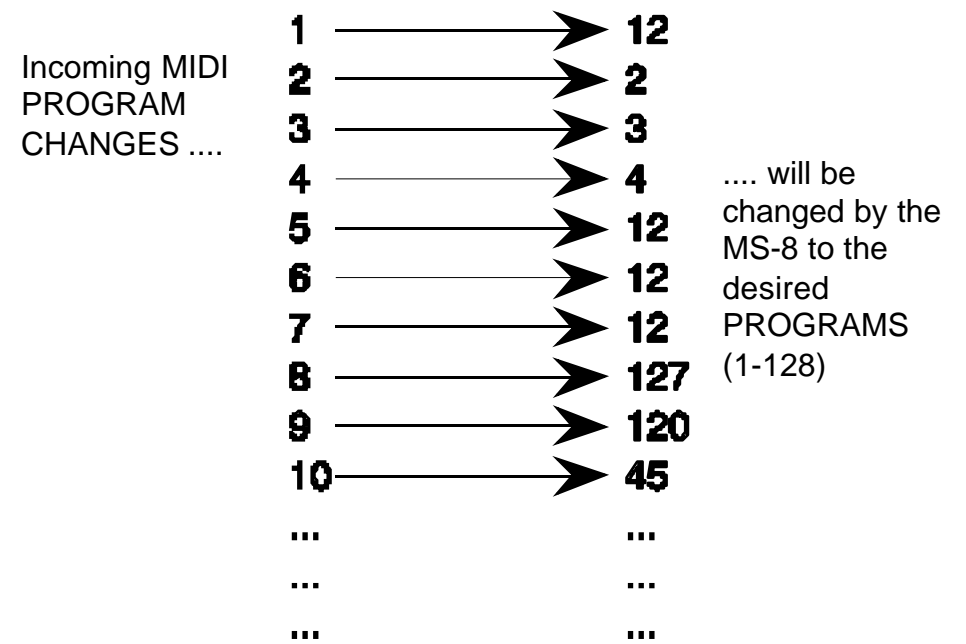
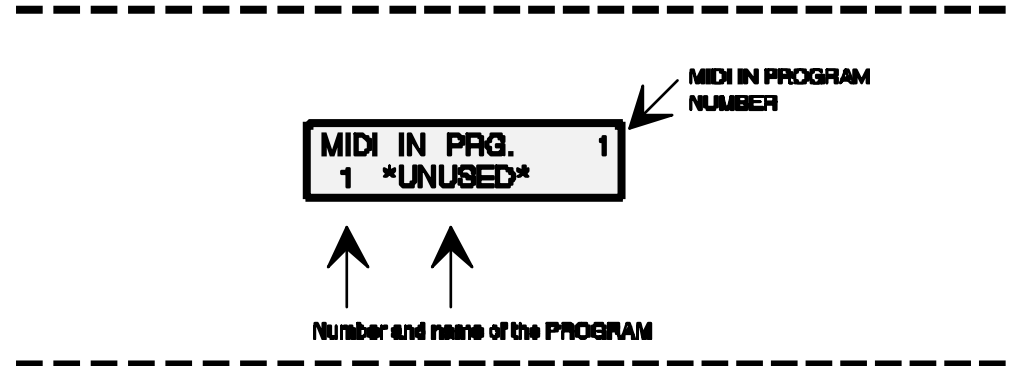
The display above the CURSOR can be changed with the CURSOR keys [↑] and [↓].

*If you hold down one of the CURSOR key [↑] or [↓] for a longer time the PROGRAMS (1-128) will automatically scroll up or down.*

### Easy programming with the functionkeys (F1-F4) :

- F1 = Counts the MIDI IN PROGRAM CHANGE up
- F2 = Counts the MIDI IN PROGRAM CHANGE down
- F3 = Counts the PROGRAM (1-128) of the MS-8 up
- F4 = Counts the PROGRAM (1-128) of the MS-8 down

**Note:** Only using the "EXIT" key to leave the menu will store the changes into the internal memory. If you switch the MS-8 off before pressing the "EXIT" key the MS-8 can not write into the internal memory and the data is lost.



# MIDI

## 3 MIDI OUT - TRANSMIT CHANNELS

To set the numbers of MIDI TRANSMIT CHANNELS you have to go to the "MIDI SETUP" menu.

(From the "PLAY" menu: Press the CURSOR key [←] once.)

To jump into the MIDI IN menu also press the CURSOR key [↑] once.

To enter the MIDI OUT menu press the CURSOR key [→] three times.

You can use up to five different MIDI TRANSMIT CHANNELS to control the connected MIDI devices. If you uses less than five MIDI devices switch the unused MIDI TRANSMIT CHANNELS to "OFF".

The "OFF" function is located between TRANSMIT CHN. 16 and 1.

The underlined value can be changed by using one of the CURSOR keys [↑] or [↓].

*If you hold down one of the CURSOR key [↑] or [↓] for a longer time the change of the character will automatically scroll up or down.*

**Easy programming with the function keys (F1-F4) :**

- F1 = Counts a MIDI OUT NUMBER up
- F2 = Counts a MIDI OUT NUMBER down
- F3 = Counts a MIDI TRANSMITCHANNEL NUMBER up
- F4 = Counts a MIDI TRANSMITCHANNEL NUMBER down

**Note:** Only using the "EXIT" key to leave the menu will store the changes into the internal memory. If you switch the MS-8 off before pressing the "EXIT" key the MS-8 can not write into the internal memory and the data is lost.

## 4 MIDI initialise - MIDI setup !

With this menu you can reset all changed MIDI data back to the factory setup. You have to go to the "MIDI SETUP" menu.

(From the "PLAY" menu: Press the CURSOR key [←] once.)

To jump into the MIDI IN menu press the CURSOR key [↑] once. To enter the MIDI SETUP! menu press the CURSOR key [←] once. The Display shows:

### MIDI SETUP ! / ARE YOU SURE ?

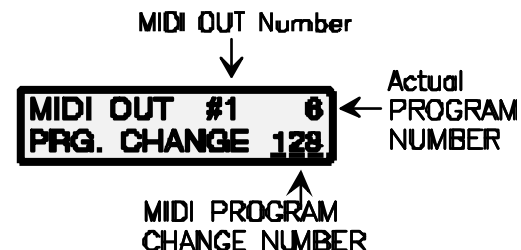
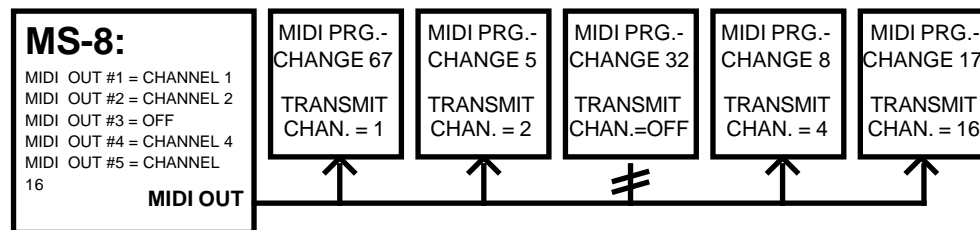
If you press the CURSOR key [↑] / YES the initialise will be actioned. All previous changed data will be overwritten with the "FACTORY SETUP" data.

Main menu:



You can transmit a MIDI PROGRAM CHANGE change only if at least one MIDI OUT #1 - #5 is set to "ON".

In this diagram MIDI OUT #3 is set to "OFF". You can not send the MIDI PROGRAM CHANGE to this MIDI CHANNEL.



After using the CURSOR key [↑] (YES) all changed parameter for MIDI will be set to the FACTORY PRESETS.

# F-Amp "older Generation"

MIDI / F-AMP "Older generation"

## 1 How to connect an older F-AMP

You can recognize these kind of amps by using the F-AMP list "Older generation" or by having a closer look at the footswitch. The footswitch uses two rectangular stereo standard plugs. One is marked with a red label the other is plain (chrome). The footswitch itself contains two switches and two LEDs (red / green).

To setup the MS-8 set the slide switch "NORM. - RED PLAIN" located at the rear of the MS-8 to position "RED PLAIN".

With two stereo cables you connect the MS-8 jack "SWITCHES (1+2) to the F-AMP.

**Important:** Set the two SWITCHES (1+2) to NEG. SWITCH.  
(In the SWITCH/ F-AMP menu)

## 2 F-Amp list "Old generation".

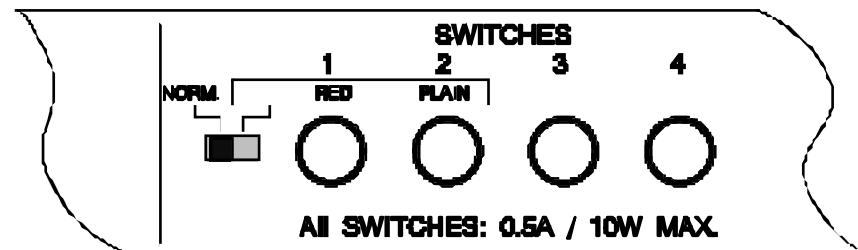
Footswitch with 2 stereoplugs.

One marked "RED" the other is "PLAIN" (without mark).

Release June 1991.

FENDER	SUPER CHAMP
FENDER	CONCERT
FENDER	75 TOP
FENDER	75 COMBO
FENDER	PRINCETON REVERB II
FENDER	DELUXE REVERB II
FENDER	TWIN REVERB II
FENDER	140 HEAD

View of the rear



In the position "RED PLAIN" you can switch the two functions

1- **CHANNEL SELECT**

2- **REVERB**

of a F-AMP "Old generation" WITH THE MS-8 SWITCHES (1+2)

# Overview for advanced users

## 1 The local parameter / stored in the PROGRAMS

### "PLAY" / "EDIT" :

Switching one of the key "SWITCHES 1-8" will switch the corresponding RELAIS. The relays are working as programmed in the SWITCH/F-AMP menu. (POS./NEG. SWITCH or PULSE)  
If you change one of the "SWITCHES 1-8" the display shows "EDIT" instead of "PLAY"

### F-AMP OUT:

In this menu you can select the switching functions of the connected F-AMP for each PROGRAM (1-128). Check the right position of the "ASSIGN" slide switch on the rear of the MS-8 and the correct selection of the F-AMP TYPE in the SWITCH / F-AMP menu.

### TITLE EDIT:

In this menu you can name each of the PROGRAMS (1-128) one name. You can use up to eight characters for this purpose.

### MIDI OUT PROG.:

This menu assigns the count of the MIDI TRANSMIT CHANNELS and which MIDI TRANSMIT CHANNEL should be used.

## 2 Global parameter / stored in the setup

### WRITE PROTECT:

menu to activate the MEMORY PROTECTION. "OFF" = "WRITE" PROTECT" disabled.  
"MEMORY" = No PROGRAM (1-128) can be overwritten. "ALL" = Like "MEMORY" plus "SWITCHES 1 - 8" have no function.

### SONGS/FOOTSW.:

The menu, to configure up to 100 "SONGS" with up to eight "STEPS". The "STORE" key is switching a "STEP" to (--EMPTY--) and back to the selected PROGRAM (1-128). If all "STEPS" in a "SONG" are set to (--EMPTY--) the "SONG" in the "PLAY" mode will be ignored. After the "FACTORY SETUP" all "STEPS" of the "SONGS" 11 - 100 are set to (--EMPTY--).

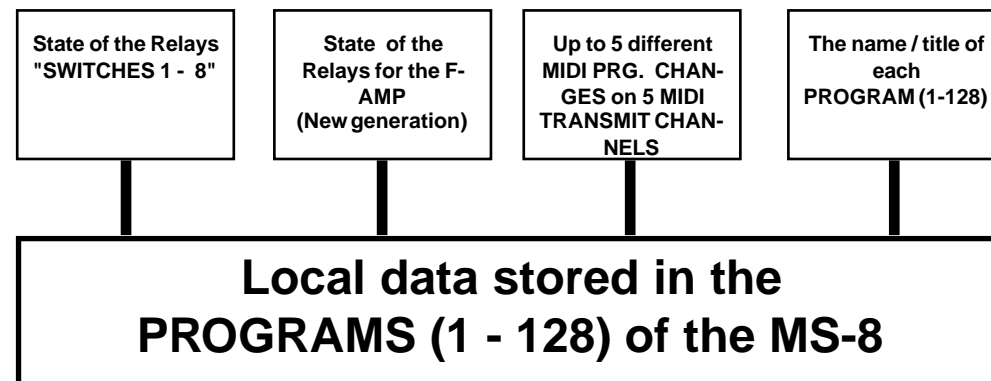
### SONGS/FOOTSW.:

In this menu you can configure up to eight footswitches which can be connect to the rear of the MS-8

The footswitches (5 - 8) are **only** available if you are using the optional RC-8 remote controller.

### Possible configurations:

PROGRAM	-ABSOLUTE	1 to 128	Recall the selected PROGRAM
PROGRAM	-RELATIVE	-10 to +10	Counts a PROGRAM up or down
SONG	-ABSOLUTE	1 to 100	Recall the selected SONG
SONG	-RELATIVE	-10 to +10	Counts a SONG up or down





# Overview for advanced users

## Overview for advanced user

STEP	-ABSOLUTE	1 to 8	Recall the selected STEP
STEP	-RELATIVE	-1 to +1	Counts a STEP up or down
PR(ogram)	-TOUCH	1 to 128	Recall the selected PROGRAM (*1)
M(I)D(I)	-TOUCH	1 to 128	Recall the MIDI data of a PROGRAM(*1)
SWITCH	-TOUCH	1 to 8	Switches relays ( <b>Momentary function!</b> ) (*1)
SWITCH	-TOGGLE	1 to 8	Switches relays ( <b>Latch function!</b> ) (*1)

(\*1) = (Touch means: works the time during a key will be pressed)

### SWITCH/ F-AMP:

The menu to configure the relays to emulate different kinds of switches.  
Each relay can emulate:

POS. SWITCH	Relays is closed if the LED of the SWITCH is on
NEG. SWITCH	Relays is open if the LED of the SWITCH is on
POS. PULSE	Relays is closed for a specific time (t=???).
NEG. PULSE	Relays is open for a specific time (t=???).

### SWITCH/ F-AMP:

In this menu you can select the correct menu of your F-AMP. The "ASSIGN" slide switch on the rear of the MS-8 must be set to the correct position!

### MIDI SETUP:

**MIDI IN:** To select the MIDI RECEIVE CHANNEL 1-16, OMNI, or OFF.

**MIDI IN PRG.:** To select which internal PROGRAM (1-128) of the MS-8 will be selected, when it receives MIDI PROGRAM CHANGES. (= MIDI MAPPING!)

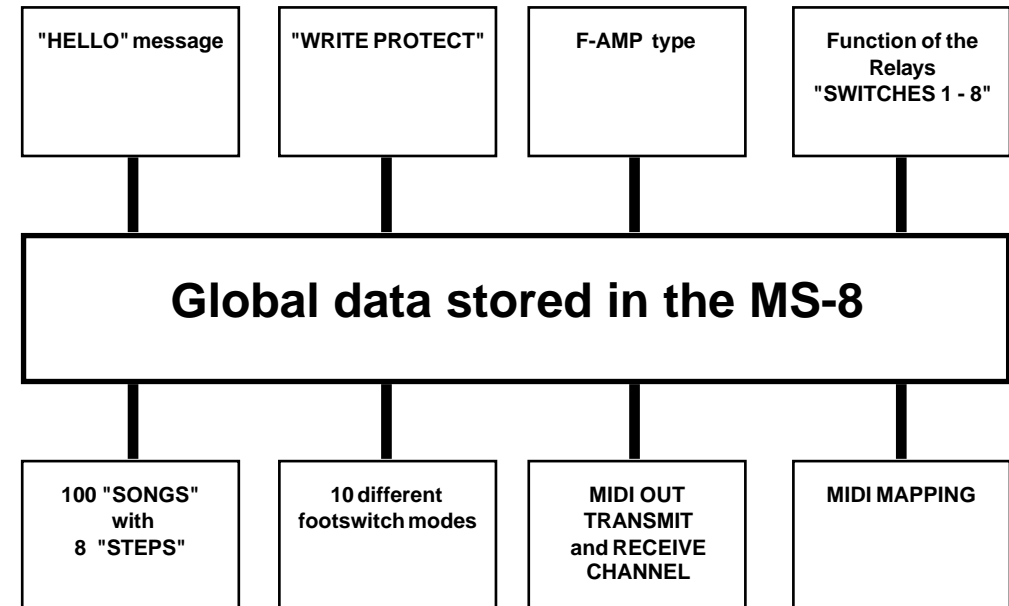
**MIDI OUT:** To configure the count (1 to 5) of the internal MIDI TRANSMIT CHANNELS 1-16 or OFF.

**MIDI SETUP:** Resets the global MIDI data to the "FACTORY SETUP".  
With safety question: "ARE YOU SURE?" (Are you really sure??)

### HELLO MESSAGE:

In this menu you can give your MS-8 a name or something else. You can use up to 16 characters.

This message will be appear on the LC-DISPLAY for approx.. 2 seconds after power up.



# Information

## 1 Overview of the programmable data

### Mainly you can make two kinds of programming:

- Global changes , for all PROGRAMS (1-128).
- Local changes, only for each PROGRAMS (1-128)

### 1.1 List of the global data

WRITE PROTECT : Set it to: OFF, ALL, or MEMORY.  
 SONGS : Assign the PROGRAM (1-128) to "STEPS".  
 FOOTSW. : Select the SWITCH modes (latch / momentary).  
 F-AMP : Select a F-AMP type  
 "HELLO" Message : Program any character (Your name, a message, etc.)  
 MIDI SETUP : Configure the MIDI RECEIVE and TRANSMIT CHANNELS  
 Select the MIDI OUT (#1-#5) and configure the MIDIMAPPING

**Note:** Only using the "EXIT" key to leave the menu will store the changes into the internal memory. If you switches the MS-8 off before pressing the "EXIT" key the MS-8 can not write it into the internal memory and the data is getting lost.

### 1.2 List of the local data - for each PROGRAM (1-128)

SWITCHES 1 - 8 : SWITCHING of the relays.  
 TITLE EDIT : name / title  
 F-AMP OUT : switching functions of the F-AMP.  
 MIDI OUT : The (max. 5) MIDI PROGRAM CHANGES

**You always have to store local changes with the "STORE" key!**

## 1.3 Overview of the functionkeys (F1 - F4)

### "PLAY" / "EDIT" mode:

F1 = Footswitch N°.1  
 F2 = Footswitch N°.2  
 F3 = Footswitch N°.3  
 F4 = Footswitch N°.4

### SONGS:

F1 = "SONG" 1- 100  
 F2 = "SONG" 100 - 1  
 F3 = "STEP" 1 - 8  
 F4 = "STEP" 8 - 1

### TITLE EDIT / "HELLO" message:

F1 = deletes one left character  
 F2 = inserts one character  
 F3 = deletes all characters  
 F4 = restores all programmed character

### FOOTSW:

F1 = next FTSW. function  
 F2 = previous FTSW. function  
 F3 = next value of the function  
 F4 = previous value of the function

### WRITE PROTECT:

F1 = switches to OFF  
 F2 = switches to MEMORY  
 F3 = switches to ALL  
 F4 = no function

### MIDI SETUP:

F1 = OMNI  
 F2 = OFF  
 F3 = no function  
 F4 = no function

### SWITCH:

F1 = POS. SWITCH  
 F2 = NEG. SWITCH  
 F3 = POS. PULSE  
 F4 = NEG. PULSE

### MIDI MAPPING:

F1 = MIDI IN PRG. +1  
 F2 = MIDI IN PRG. -1  
 F3 = PROGRAM +1  
 F4 = PROGRAM -1

### F-AMP OUT:

F1 = CHN.1 / 2 / BOOST  
 F2 = CH. ON / OFF  
 F3 = no function  
 F4 = REV. ON /OFF

### MIDI OUT and TRANSMIT CHANNEL:

F1 = MIDI OUT #1 - #5  
 F2 = MIDI OUT #5 - #1  
 F3 = TRANSMIT CHN. +1  
 F4 = TRANSMIT CHN. -1

### MIDI OUT PROG:

F1 = MIDI OUT #1 - #5  
 F2 = MIDI OUT #5 - #1  
 F3 = PRG.CHNG. OFF, 1 - 128  
 F4 = PRG.CHNG. OFF, 128 - 1

# Information

# Information

## 1.4 "Factory SETUP" / or erase all data...

"HELLO" message : Hi, r u ready?  
 WRITE PROTECT : OFF  
 F-AMP : AMP 5

### All PROGRAMS (1-128) 1 - 128

TITLE EDIT : \*UNUSED\*  
 F-AMP out : CHN.1, CH. OFF, REV. OFF

### MIDI-SETUP

MIDI OUT #1 : TRANSMIT CHANNEL 1  
 MIDI OUT #2 - #5 : OFF  
 MIDI IN : OMNI

### MIDI MAPPING

MIDI IN PRG. : Incoming MIDI PROGRAM CHANGES are the same as the PROGRAMS (1-128).

### "SONG"

"SONG" N°.1 : "STEP 1 - 8" = PROGRAM 1 - 8  
 "SONG" N°.2 : "STEP 1 - 8" = PROGRAM 9 - 16  
 "SONG" N°.3 : ..... u.s.w.  
 "SONG" N°.10 : "STEP 1 - 8" = PROGRAM 73 - 80  
 "SONG" N°.10 - 100 : (--EMPTY--) , are not in use

### 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

**FTSW.5-8 are only available  
 with the optional  
 RC-8 remote controller!**

### SWITCHES

SWITCHES 1 - 4 : POS. SWITCH  
 SWITCHES 5 - 8 : POS. PULSE t= 20

### Do a "FACTORY SETUP":

Switch the MS-8 on. During the "HELLO" message appears on the LC-DISPLAY hit SWITCH 4 and than SWITCH 2.

(= 42 - The answer of all questions, see also the hitchhikers guide to the galaxy!)

**WARNING: This procedure is final. You cannot make it undo! Every self programmed data will be overwritten!**

## 1.5 Technical data

Dimension : Standard 19" 1rack unit / 484mmx180mmx45mm  
 Weight : 1575g  
 RAM : 8Kbyte  
 BAK-Battery : 3V CR 2032, Lifetime: approx.6-7 years.  
 Relays : 9x 500mA / 10W max.  
 Display : 2x 16 character with backlit LED, adjustable contrast  
 Power : AC 7.5V / 1A or DC 10V / 1.2A

INPUTS : 1x PSU, 1x MIDI IN, 4x Standard footswitches  
 OUTPUTS : 1x MIDI OUT, 1x F-AMP Out, 8x SWITCHES (Relays)

**Note: All contacts of the SWITCHES / RELAYS are isolated from each other and the unit!**

## CAUTIONS

- 1 The outputs SWITCHES (1-8) are only usable for low power. It is not allowed to connect any jack of the MS-8 to the mains. Otherwise you risk your own life or the life of other people. **Never** connect High Voltages (more than 40V) to Switch Outputs!
- 2 The MS-8 contains a lithium battery. Due not expose the battery to extreme heat or light. Explosion could result.
- 3 Use only the AC adaptor / power supply unit provided! Substituting adaptor may damage the MS-8!

### BESCHEINIGUNG DES HERSTELLERS / IMPORTEURS.

*Hiermit wird bescheinigt, daß der / die / das MS-8 in Übereinstimmung mit den Bestimmungen des Amtsbl. Vfg 1046 / 1984 Funk entstört ist. Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung eingeräumt. MUSE INC. KOREA / INCHEON.*

### RADIO AND TELEVISION INTERFERENCES

*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 interferences to radio and TV reception.*

# Copy pages

## MIDI MAPPING:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Footswitch configuration:

FTSW 1	<input type="checkbox"/>
FTSW 2	<input type="checkbox"/>
FTSW 3	<input type="checkbox"/>
FTSW 4	<input type="checkbox"/>
FTSW 5	<input type="checkbox"/>
FTSW 6	<input type="checkbox"/>
FTSW 7	<input type="checkbox"/>
FTSW 8	<input type="checkbox"/>

## MIDI OUT TRANSMIT CHANNEL

1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4	<input type="checkbox"/>	5	<input type="checkbox"/>
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## SWITCHES configuration

	POS	NEG	SWITCH	PULSE	TIME
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Copy pages / 2 "SONGS" and "STEPS"

## Copy pages

Music title:	SONGN <sup>o</sup>	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7	STEP 8

# Copy pages / 3 Programs

PROGRAM		F-AMP			MIDI OUT					Memo:
Nº.:	Title:	CHN.:	CHO.:	REV.:	#1	#2	#3	#4	#5	
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