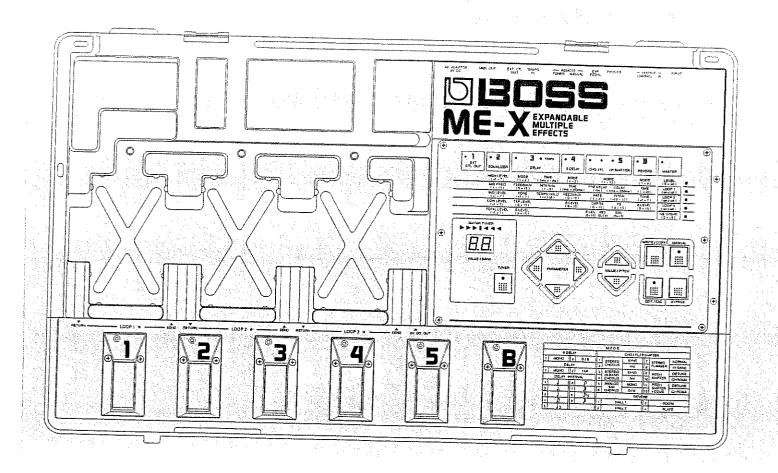


EXPANDABLE MULTIPLE EFFECTS Owner's Manual



For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE : NEUTRAL BROWN : LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

For Germany

Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt, daß der/die/das

Roland Expandable Multiple Effects ME-X

(Gerät, Typ, Bezeichnung)

in Übereinstimmung mit den Bestimmungen der BMPT-AmtsblVfg 243/1991 funk-entstört ist. Der vorschriftsmäßige Betrieb mancher Geräte (z. B. Meßsender) kann allerdings gewissen Einschränkungen unterliegen. Beachten Sie deshalb die Hinweise in der Bedienungsanleitung. Dem Zentralamt für Zulassungen im Fernmeldewesen wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf die Einhaltung der Bestimmungen eingeräumt.

Roland Corporation

4-16 Dojimahama 1-Chome Kita-ku Osaka 530 Japan

(Name und Anschrift des Herstellers/Importeurs)

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the users authority to operate this equipment. This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

CLASS B

NOTICE

This digital apparatus does not exceed the Class B limits for radio noise emissions set out in the Radio Interference Regulations of the Canadian Department of Communications.

CLASSE B

AVIS

Cet appareil numérique ne dépasse pas les limites de la classe B au niveau des émissions de bruits radioélectriques fixés dans le Réglement des signaux parasites par le ministère canadien des Communications.

Before You Begin

We'd like to take a moment to thank you for purchasing the BOSS ME-X Expandable Multiple Effects. To ensure proper operation and years of trouble-free service, please take the time to read this entire manual.

Features

Compact Pedals and Multi-Effects in a Single Unit

The ME-X is a stand-alone multi-effects board which can be enhanced by adding external effects units. By selecting the external units of your choice, you can create a custom effects system.

Three Programmable Loops

Each Patch in the ME-X can store settings related to the external effects units. This allows you to instantly access those effects through the Patches you have created.

Integrated Carrying Case

The ME-X is built right into a road-worthy carrying case.

Eight Internal Effects

The ME-X contains eight of the most sought-after digital effects.

Simple Editing

The effect parameters are printed on the top panel of the unit, making the editing process quick and easy.

Patch Storage

You can store up to 25 Patches in the ME-X's internal memory, and then recall them instantly using the foot switch pedals.

Manual Mode (The "Stomp Box" mode)

In the Manual mode, you can use the ME-X's pedals to switch effects on and off during play - much as you would with stand-alone "stomp boxes."

Set Delay Times to match the Tempo

By depressing a special footswitch (optional) in time with the music, you can set delay times that match the tempo.

Stereo Delay for Panning

The delay section features a stereo output, letting you use panning delays in which the sound moves from left to right.

Chromatic Tuner

This convenient feature allows you to tune your guitar without having to unplug.

Long Delays and Reverbs

Delays and reverb trails will decay naturally - even when you switch to another effect that doesn't use delay or reverb.

Headphone Jack

The headphone jack allows you to hear yourself without disturbing those around you - great for late-night practice.

Contents

Features	3
Important Notes	
Panel Descriptions	
Opening the Effects Board and Stowing the Adaptor	
Opening the Effects Board	
Stowing the AC Adaptor	
Making the Connections	
Setting Up External Compact Pedals	9
Connections with Other Devices	
Turning On the rower	1
Section It The Playing	
Section I: The Playing	
The Play Mode	14
Selecting a Patch	
The Manual Mode (The "Stomp Box" mode)	15
Selecting the Manual Mode	
Manual Mode Operations	
Direct Guitar Sound - Bypass	
Changing the Volume in Real Time	17
Changing the Delay Time in Real Time	
Setting the Delay Holding and Canceling the Standard Tempo	
Using the Tuner	
1. Selecting the Tuner	
2. Tuning Display	
3. How to Tune	
4. Checking and Changing the Standard Pitch	22
Section II: Changing the Effects Settings	
The Edit Mode	ግ /
Changing Patch Settings (Patch Editing)	
Canceling Edits	
Storing Edited Patches in Memory - The Write Operation	27
Duplicating Effects Settings - Copy	

EXTERNAL CONTROL OUT	
EQUALIZER	
DELAY	
SHORT DELAY	
CHORUS/FLANGER/PITCH SHIFTER	36
REVERB	30
MASTER LEVEL	4(
LOOP 1/2/3	Δ.
NOISE SUPPRESSOR	40
Section IV: Using MIDI	
About MIDI	4*
Exchanging MIDI Messages	
About MIDI Jacks	
MIDI Channels	Δ.
2. The Main MIDI Messages Handled by the ME-X	47
Program Change Messages	43
Control Change Messages	43
MIDI Implementation Chart	43
So What Can You Do with MIDI?	44
1. Selecting Patches Via MIDI	44
2. Sending Expression Pedal Data with MIDI	44
Section V: Appendices	
Troubleshooting	46
Initialization - Restoring the Original Factory Settings	47
Effects Algorithms	48
Factory Default Settings	49
Blank Chart	50
MIDI Implementation	51
MIDI Implementation Chart	52
Specifications	53
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Important Notes

Be sure to use only the AC adaptor supplied with the unit. Use of any other AC adaptor could result in damage, malfunction, or electric shock.

Power Supply

Before connecting this unit to other devices, turn off the power to all units; this will help prevent damage or malfunction.

Do not use this unit on the same power circuit with any device that will generate line noise; an electric motor or variable lighting system for example.

The power requirement for this unit is indicated on its nameplate (rear panel). Ensure that the voltage in your installation meets this requirement.

Avoid damaging the power cord: do not step on it, place heavy objects on it, etc.

When disconnecting the AC adaptor from the power outlet, grasp the plug itself; never pull on the cord.

If the unit is to remain unused for an extended period of time, unplug the power cord.

Placement

Do not subject the unit to temperature extremes (eg., direct sunlight in an enclosed vehicle). Avoid using or storing the unit in dusty or humid areas, or areas that are subject to high levels of vibration.

Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum.

This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.

Do not expose the unit to temperature extremes or install it near devices that radiate heat. Direct sunlight in an enclosed vehicle can deform or discolor the unit.

Maintenance

For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.

Never use benzene, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Additional Precautions

Protect the unit from strong impact.

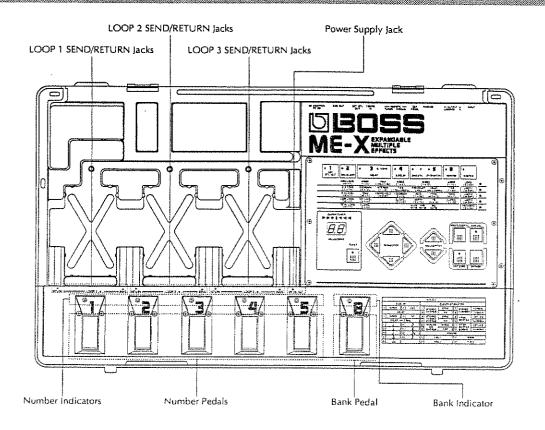
Do not allow objects or liquids of any kind to penetrate the unit. In the event of such an occurrence, discontinue use immediately. Contact qualified service personnel as soon as possible.

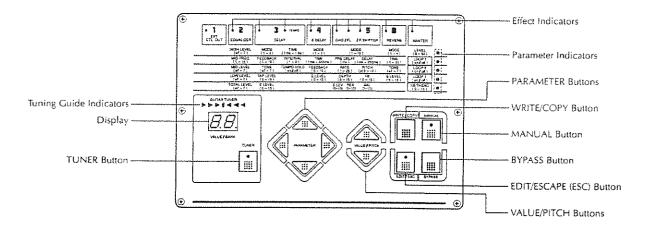
Before using the unit in a foreign country, consult with qualified service personnel.

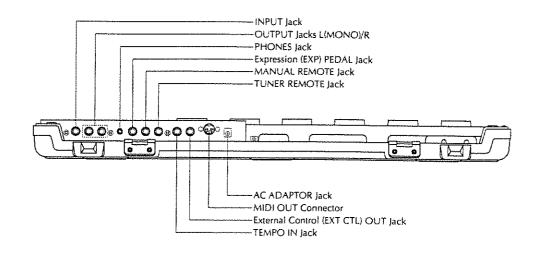
Should a malfunction occur, or if you suspect there is a problem, discontinue use immediately. Contact qualified service personnel as soon as possible.

To avoid the risk of electric shock, do not open the unit or its AC adaptor.

Panel Descriptions





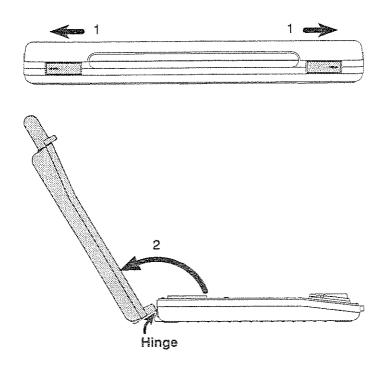


Opening the Effects Board and Stowing the Adaptor

Opening the Effects Board

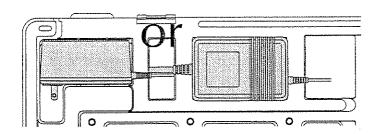
Be sure the ME-X is on a flat, level surface, with the BOSS logo facing up.

- 1. Slide the latches on either side of the handle outward.
- 2. Grip the handle and pull up the top cover, and lift the entire cover up and off the unit.
 - * Be careful not to apply excessive force to the hinges.



Stowing the AC Adaptor

The ME-X comes with an AC adaptor and a compartment for storing it.



Making the Connections

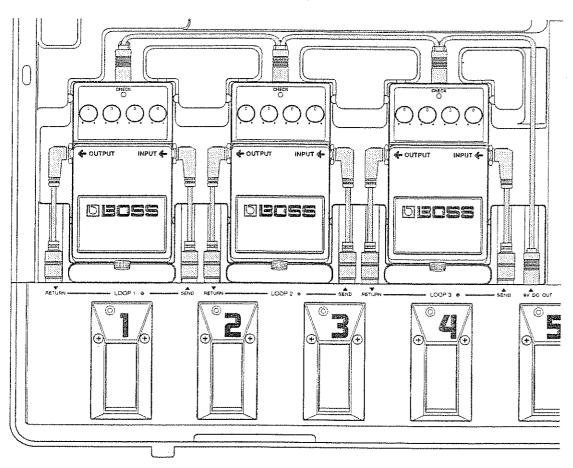
- * When connecting your guitar, be sure all devices are turned off and that your amp/PA volume is at "0." This will help protect your amp or PA system from possible damage.
- * After you've turned on all other devices, you can turn the amp or PA up.

Setting Up External Compact Pedals

Use the signal cords that have been provided to connect the external effects to the ME-X. The figure below shows how. When the connections have been made, slip the effects in the 'pockets' to hold them securely. And use the DC supply cords that have been provided to connect the external effects to the ME-X.

If you want to connect a device other than a compact pedals, use the appropriate cords.

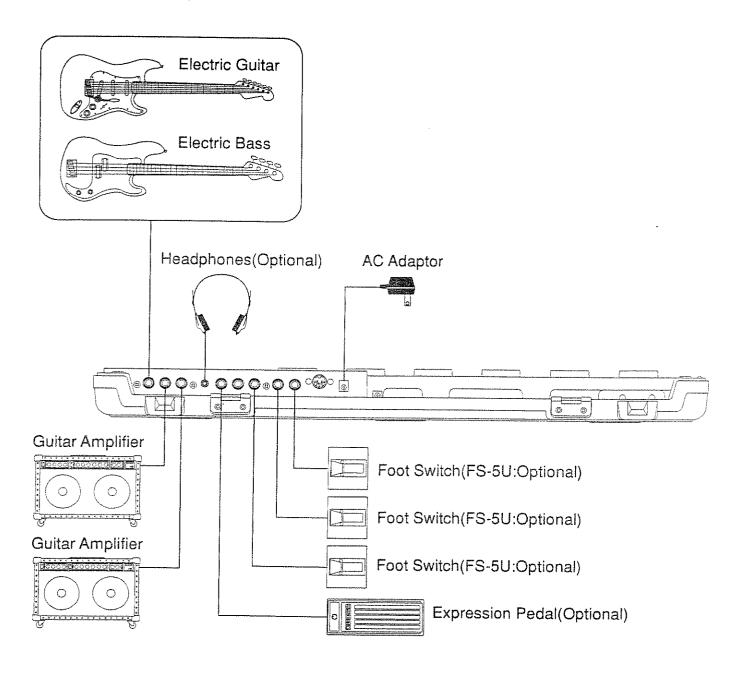
Before connecting any compact pedals, be sure to remove the unit's battery. (Long-term connection could result in battery leakage or other problems.)



- * Don't connect the DC supply cords to anything other than BOSS Compact Pedals.
- * Secure the effects after making all the connections.
- * Don't connect the LOOP SEND output to a monitor or similar device. Doing so can cause noise.
- * Don't connect delays or other long effects to a Loop, as this can also cause noise.

Connections with Other Devices

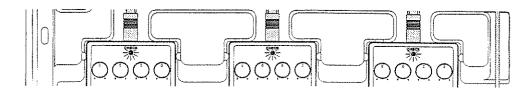
- * For monaural output, use the OUTPUT L(MONO) jack only.
- * An expression pedal (optional) connected to the EXP.PEDAL jack will let you instantly set the minimum output level. See "Changing the Volume in Real Time" on page 17 for details.



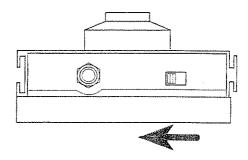
Turning On the Power

After checking that all external devices are connected properly, connect the ME-X's AC adaptor. This turns on the power and automatically selects the Play mode - the basic operational mode.

After the power is on, turn on the external effects connected to the ME-X's Loops.



- * When a BOSS Compact Pedal is switched on, the effect it produces is not necessarily on.
- * The ME-X contains a protection circuit which mutes the output for a second or two after power up.
- * If you have a foot switch (FS-5U, sold separately) plugged into any of the remote jacks, be sure the polarity switch is set as shown below.



MEMO

Section

The Playing

The Play Mode

What is a Patch?

The ME-X can store 25 different combinations of effects and parameter settings in memory. Each of these combinations is called a "Patch." These 25 Patches are divided into five memory "Banks" (numbered 1 - 5), with five Patches per Bank (also numbered 1-5.)

Each Patch in the ME-X, then, is identified by a combination of a Bank number and a Patch Number within that bank. You'll use this system to select the Patches you need.

^{*} Whenever you turn the power on, "BANK: 1 NUMBER: 1" will automatically be selected.

			E	BANI	〈	
		1	2	3	4	5
	1	1	6	11	16	21
Щ	2	2	7	12	17	22
MB	3	3	8	13	18	23
NUMBER	4	4	9	14	19	24
	5	5	10	15	20	25

Selecting a Patch

1. Select the Bank.

1. Press the Bank ("B") pedal.

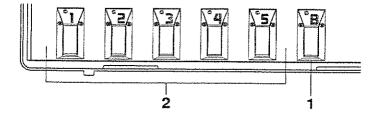
The Bank number in the display will flash for several seconds.

2. While the number in the display is still flashing, press a Number pedal (1-5).

This selects the desired Bank number.

Pressing a Number pedal at this point only changes the Bank number - it does not select a new Patch. The Patch is not actually selected until you select a number within that Bank, and that can only be done when the number in the display stops flashing and lights continuously.

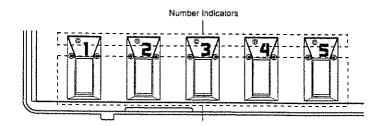
* Press the Bank pedal again if you wish to return to the original Patch without changing Banks.



2. Select a Number.

When the number in the display lights continuously (after a few seconds), the Patch Number can be selected by pressing one of the Number pedals (1-5); just press the pedal corresponding to the Number you want. The Number changes, and the Bank/Number combination selects the assigned Patch.

* If you want to select a different Patch within the same Bank, simply depress the corresponding Number pedal - you do not need to re-select the Bank.



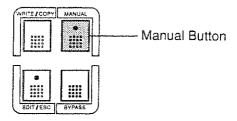
The Manual Mode (The "Stomp Box" mode)

With the ME-X, you can save effects settings either as a Patch, or as an entirely separate Manual mode setting. In the Manual mode the pedals can be used to switch effects on and off, enabling you to use the ME-X as if it were a row of compact "stomp box" effects.

When you select the Manual mode, the effects settings last used in the Manual mode are recalled - regardless of the Patches you may have selected in the interim.

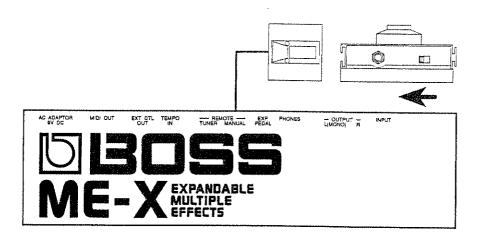
Selecting the Manual Mode Using the Panel Button

Each press of the [MANUAL] button turns the Manual mode "on" or "off." The button indicator lights when the Manual mode has been selected.



Using a Foot Switch

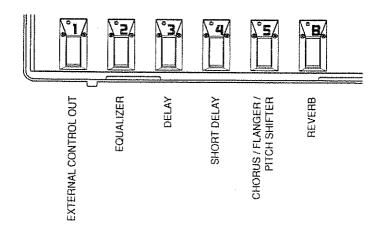
If you have an optional FS-5U foot switch connected to the MANUAL REMOTE jack, each press of the foot switch turns the Manual mode on or off. Again, the button indicator lights when the Manual mode has been selected.



Manual Mode Operations

Switching Effects On and Off

In the Manual mode, the Bank pedal and Number pedals become the switches you use to turn effects on and off. When an effect is on, the corresponding Pedal and Effect indicator will light. The effects are assigned to the six pedals as indicated:



^{*} To switch the Loops (Compact Pedals) on and off, follow the procedure described below (in "Changing Parameters").

Changing Parameters

Change the settings for an effect.

1. Select the parameter you want to edit.

Use the **PARAMETER** [4] (Left) and [6] (Right) buttons to choose the effect you want to edit, then select the desired parameter with the **PARAMETER** [42] (Up) and [57] (Down) buttons. The parameter you will be editing is displayed beneath the flashing Effect indicator, across from the lit Parameter indicator. Its current setting appears in the display.

* If you select a parameter for an effect that is currently turned off, the number in the display flashes.

2. Change the setting with the VALUE [\triangle] and [\heartsuit] buttons.

While holding down the [\triangle] button, you can increase the scrolling speed by pressing and holding the [\heartsuit] button. (This works for the [\heartsuit] button as well.)

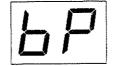
Repeat steps 1. and 2. to change other parameter settings.

^{*} The Noise Suppressor is always on.

Direct Guitar Sound - Bypass

When Bypass is on, you'll hear the direct sound of the guitar (connected to the ME-X) without any effects.

Each press of the [BYPASS] button switches Bypass on or off. When it's on, the display will read "bP."

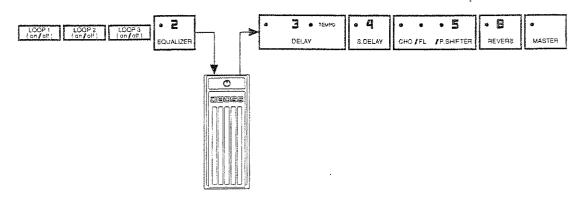


VALUE / BANK

Changing the Volume in Real Time

An expression pedal (optional) connected to the EXP. PEDAL jack will let you control the output volume in real time. Lingering effects like delay and reverb will decay naturally (instead of being suddenly cut off), even when you use the expression pedal to cut the volume. You can also use the minimum volume setting on the expression pedal to control the ME-X's overall volume.

In fact, the expression pedal is inserted into the effects chain as shown in the diagram below.

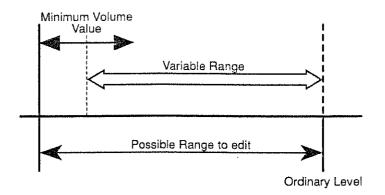


Here's how the range of variation in the level is controlled by the pedal.

Pedal depressed completely: Output at the normal level

Pedal returned:

Output at the level set for the minimum volume



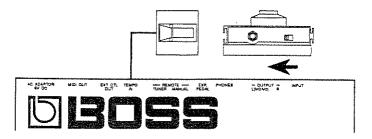
^{*} Expression pedal data is output from MIDI OUT as MIDI control change information. For more details, see "Sending Expression Pedal Data with MIDI" on page 44.

Changing the Delay Time in Real Time

If you have an FS-5U foot switch (optional) plugged into the TEMPO IN jack, you can change the delay time "on the fly" simply by tapping the pedal in tempo as you play.

Connecting the Foot Switch

Plug the foot switch into the TEMPO IN jack. Be sure the polarity switch is set as shown below.



Setting the Delay

Here's how to set the delay.

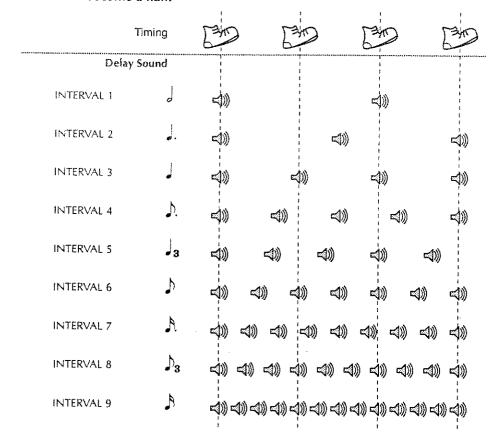
1. Set the delay "INTERVAL" for each Patch (the time between each repeated sound).

Using the same procedure for editing parameters, set the delay interval and perform a Write operation.

NOTE

The timing you use to tap the foot switch (the standard tempo, converted to quarter notes), and the setting for "INTERVAL" make the delay sound in the following way.

* When the delay time set by the standard tempo and the interval is more than 1.8sec, the delay time will become a half.



2. Press the foot switch in time with the song as you play.

The standard tempo is set to this timing after you've pressed the foot switch four times.

When the standard tempo has been set, the tempo indicator lights, and the delay is set according to the standard tempo and "INTERVAL."



Holding and Canceling the Standard Tempo

This describes how the delay changes when you switch Patches after the standard tempo has been set. You can also cancel the standard tempo.



When switching to a Patch for which TEMPO HOLD is "ON":

The standard tempo is maintained, the tempo indicator remains lit, and the delay changes according to the standard tempo and the set "INTERVAL."

* If standard tempo has not been set, the delay setting in memory for each Patch is used - even for a Patch in which TEMPO HOLD is "ON." (The tempo indicator will remain dark.)

When switching to a Patch for which TEMPO HOLD is "OFF":

The standard tempo is canceled, the tempo indicator turns off, and the delay stored in memory for each Patch is used. Once the standard tempo has been canceled, it remains inactive until you tap the foot switch four times again.

To cancel the standard tempo:

Hold down the foot switch for more than one second. When you do this, the tempo indicator goes out and the delay setting stored in memory for each Patch is instantly in effect.

You can change the standard tempo that has been set by tapping the foot switch four times again. Turning off the power or holding down the foot switch for more than a second cancels the standard tempo, and the delay setting stored in memory for each Patch is used.

Using the Tuner

The ME-X comes with a chromatic tuner that can be used for quick tune-ups - without unplugging your guitar.

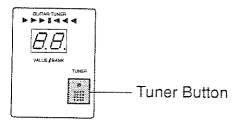
1. Selecting the Tuner

When you use the Tuner, muting is enabled and no sound is output from the unit.

- * When you first switch to the Tuner, the standard tuning pitch will be displayed. (You can start tuning right away, even while the pitch is displayed.)
- * Only the last two digits of the standard pitch appear in the display. For instance, if the display reads "40," the standard pitch is 440 Hz.
- * To change the standard pitch, see "Checking and Changing the Standard Pitch" on page 22.

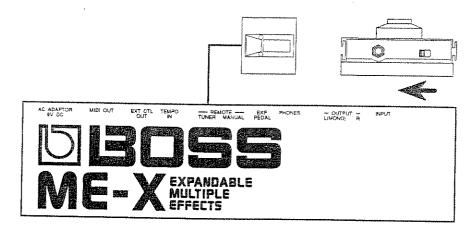
Using the Panel Button

Each press of the [TUNER] button switches the Tuner on or off. When the Tuner is on, the button indicator lights, and the Tuner is ready for use.



Using a Foot Switch

If you have an FS-5U foot switch (optional) connected to the TUNER REMOTE jack, each press of the foot switch will turn the Tuner on or off. (It works the same as if you were doing it from the panel.)



Section I: The Playing

2. Tuning Display

The Tuner shows the note name in the display. The GUITAR TUNER LEDs indicate when the note you are playing is sharp or flat. The note is in tune when only the center LED lights.

Note Name Display

The note name of the input note appears in the display:

C: [E: E	G#: <u>□</u> □
C#: []	F: E	A: [F]
D: d	F#: F0	А#: <u>П</u>
D#: 🖅	G: [В: Ь

Tuning Guide Indicator

Watching the GUITAR TUNER display, tune the string until only the center LED lights.

3. How to Tune

1. Play the open string you want to tune.

The name of the note closest to the one you played will be displayed.

2. Tune the string until the note name for the string you're playing appears in the display.

	6th String	5th String	4th String	3rd String	2nd String	1st String
GUITAR	E:82.4Hz	A:110.0Hz	D:146.8Hz	G:196.0Hz	B:246.9Hz	E:329,6Hz
BASS	B:30.9Hz	E:41.2Hz	A:55.0Hz	D:73.4Hz	G:98.0Hz	C:130.8Hz

3. Tune the string until only the center LED of the GUITAR TUNER lights.

Repeat steps 1 through 3 until all strings are properly tuned.

^{*} If your guitar has a whammy bar, you know that tuning one string by an appreciable amount can cause the others to go slightly out of tune. You'll therefore have to first get the guitar roughly in tune, tuning each string only until the string name appears, then go back and fine tune each string.

4. Checking and Changing the Standard Pitch What is Standard Pitch?

"Standard pitch" is the frequency of the note A4 (middle A on a piano) used as a reference for tuning.

The display shows the standard pitch. If you need to, you can change standard pitch within the range of 435 Hz to 445 Hz. The new standard pitch will be retained in memory until you change it again.

- * The factory preset is for A=440 Hz.
- * When you switch on the Tuner, the standard pitch is displayed.

1. Make sure the Tuner is on (the button indicator will light.)

2. Check the standard pitch currently in effect.

Pressing the VALUE [] or [] button once makes the current standard pitch appear in the display. The display shows only the last two digits of the pitch, so if the display reads "40," for example, the standard pitch is 440 Hz.

3. Change the standard pitch.

Pressing the **VALUE** [46] or [57] button (while the pitch is displayed) shifts the pitch up or down in 1 Hz intervals.

The standard pitch setting will only be displayed for a few seconds. If you do not press any panel button within that time, the previous display will return.

Section II

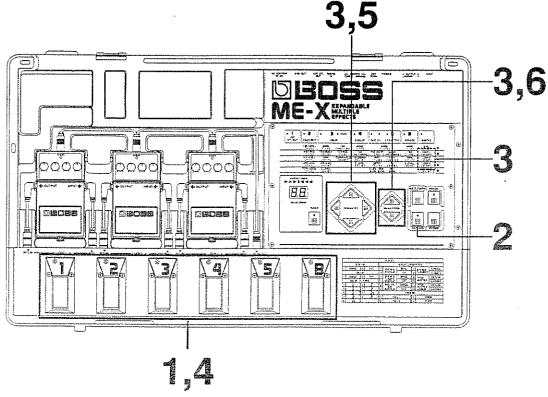
Changing the Effects Settings

The Edit Mode

It's easy to change effects settings and save them as a Patch. We'll show you in this section how to do just that.

* For Compact Pedal (external effects) settings, see the appropriate operation manual.

Changing Patch Settings (Patch Editing)



Each of the 25 Patches stored in memory has 'default' (factory) settings. By changing these settings, you can create your own original effect sounds. This is what we mean by "editing."

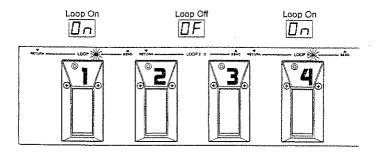
1. In the Play mode, select the Patch you wish to edit. (Refer to "Selecting a Patch" on page 14 if you want a refresher on how to call up Patches.)

2. Press the [EDIT/ESC] button.

This puts you in the Edit mode (the EDIT/ESC indicator will light).

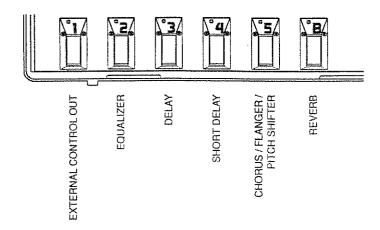
3. Switch the effects connected to LOOP 1 - LOOP 3 on or off.

Use the PARAMETER buttons to choose the Loop you want to edit, then switch the Loop on or off with the **VALUE** [🖎] and [🐨] buttons. You can check the status by the messages in the display and by the Loop indicators.



4. Turn the effects on or off.

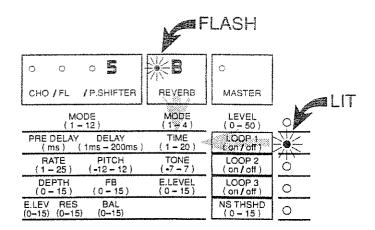
Turn the internal effects on or off by pressing the appropriate Bank or Number pedals. (You can easily determine which effects are on by looking at the number indicators.) The following effects have been assigned to the pedals:



5. Now select the parameter you want to edit.

Press the **PARAMETER** [4] and [b] buttons to select the effect to be edited, then the parameter you wish to edit with the **PARAMETER** [45] and [57] buttons. The effect and parameter indicator lights will show you which parameter is selected, and the parameter setting will be displayed.

* If you select a parameter for an effect that is turned off, its setting will flash in the display.



6. Change the parameter values

Watch the display, and change the parameter values with the **VALUE** [🖎] and [🔝] buttons.

Repeat steps 3 through 6 until the settings are as you want them.

* At this point, if you turn off the ME-X or select a different Patch, the Patch you've been working on will revert back to its original settings. If you want to actually store the new Patch settings (after editing), you have to perform a Write operation as described on page 27.

Canceling Edits

After editing a Patch - but before saving it with a Write operation - you can cancel the edits and return to the original settings. Here's how:

1. Press the [EDIT/ESC] button.

The EDIT/ESC indicator will flash rapidly.

- * To continue editing the Patch, press a PARAMETER or VALUE button.
- * Actually, if you press this button in the Edit mode and you haven't turned any effects on or off and didn't change any settings, you will be returned immediately to the Play mode.

2. Press [EDIT/ESC] one more time.

The EDIT/ESC indicator will go out and you're back in the Play mode. All the changes you have made are lost, and you're back to the original settings again.

Storing Edited Patches in Memory - The Write Operation

Even after you've edited a Patch and played with it a while, if the power is turned off (or you switch to another Patch), the changes you have made will be lost. To save a Patch with edits intact, you'll have to store it with the Write operation.

Storing a Patch in Memory

1. Press the [WRITE/COPY] button.

The EDIT/ESC indicator will flash (at a slow rate), and the display and number indicators will reflect the settings for the current Patch.

2. Select a Patch in which you'll store the new, edited data.

Check out "Selecting a Patch" on page 14 for more info on how Patches are designated.

- * If you save an edited Patch to a different Patch number, the Patch you started with is unchanged and still in its original location.
- * If you are saving an edited Patch in its original Patch number, well, you're already at that Patch number so there is no need to reselect the Patch. Skip step 2 and go to 3.
- * To cancel a Write operation, press a PARAMETER or VALUE button. You'll be returned to the Edit mode.

3. Press the [WRITE/COPY] button again.

This stores the edited Patch in memory. When the operation is complete, you'll be transferred to that new Patch number and returned to the Play mode.

Storing Manual Mode Settings

1. Press the [WRITE/COPY] button.

The EDIT/ESC indicator will flash slowly, and the display and number indicators will reflect the settings for the current Patch.

2. Press the [MANUAL] button.

The MANUAL indicator will light to show that you're storing Manual settings now.

- * Pressing the [MANUAL] button again turns off the MANUAL indicator, and you're back to where you can store Patch data.
- * To cancel a Write operation, press a PARAMETER or VALUE button. You'll be returned to the Edit mode.

3. Press the [WRITE/COPY] button again.

This stores the Manual settings for that Patch along with the Patch data. When the operation is complete, the MANUAL indicator will light to show that you're now in the Manual mode.

Duplicating Effects Settings - Copy

Sometimes you'll want the contents of one Patch copied to another Patch location. Not only can you copy from one Patch to another, you can copy between Patches and Manual settings.

Copying a Patch to a Different Patch Number

1. Select the Patch to copy from.

Check out "Selecting a Patch" on page 14 for more info on how to do this.

2. Press the [WRITE/COPY] button.

The EDIT/ESC indicator will flash slowly, and the display and pedal indicators will show the current Patch.

- * To cancel the Copy operation and return to the Play mode, press the [EDIT/ESC] button.
- 3. Select the Patch to copy to.

4. Press the [WRITE/COPY] button once more.

The contents of the "from" Patch will be copied to the "to" Patch. When the copying is complete, you'll be returned to the "from" Patch and be in the Play mode.

Copying the Contents of a Patch to Manual

1. Select the Patch to copy from.

Check out "Selecting a Patch" on page 14 if you need more info on how to do this.

2. Press the [WRITE/COPY] button.

The EDIT/ESC indicator will flash slowly.

3. Press the [MANUAL] button.

The MANUAL indicator will light, indicating the "copy to" is a Manual setting.

- * Pressing the [MANUAL] button again turns off the MANUAL indicator and lets you save to Patches again.
- * To cancel the Copy operation and return to the Play mode, press the [EDIT/ESC] button.

4. Press the [WRITE/COPY] button again.

The Patch contents are now copied into the Manual settings. When the copy operation is complete, you'll be in the Manual mode.

Copying the Manual Settings to a Patch

1. Press the [MANUAL] button to enter the Manual mode.

The Manual indicator will light.

2. Press the [WRITE/COPY] button.

The EDIT/ESC indicator will flash slowly, and the display and indicators will reflect the current Patch.

3. Select a Patch to copy to.

See "Selecting a Patch" on page 14 for more info on this.

* To cancel this Copy operation and return to the Manual mode, press the [EDIT/ESC] button.

4. Press the [WRITE/COPY] button again.

The Manual settings are now copied to the selected Patch. When the copy operation is complete, you'll be returned to that Patch and be in the Play mode.

MEMO

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Section III

The Effects

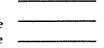
With the ME-X, you can create your own sounds by combining effects and changing their parameters. In this section we'll tell you about what each of the effects does, and what changes you can make with the available parameters.

EXTERNAL CONTROL OUT

When you make a connection between the EXT. CTL. OUT jack of the ME-X and the REMOTE jack of an external device, you can control the connected external device according to the On/Off setting of each patch.



* The REMOTE TUNER and REMOTE MANUAL jacks are normally used to connect foot switches. Operation varies according to the external device that is connected. Make the connection and switch the device on and off to check the operation. For instance, if the REMOTE jack on a BOSS SD-2 Dual Overdrive is connected to the EXT. CTL. OUT jack, you'll get the 'Crunch' mode when EXT CTL OUT is on, and the 'Lead' mode when it's off.



* EXTERNAL CONTROL OUT can only be turned on and off with a Number pedal. You can't choose "EXT. CTL. OUT" with the PARAMETER buttons.

EQUALIZER

This is a three-band equalizer that uses parametric control in the midrange, the most important frequency range for a guitar.



HIGH LEVEL (-7 to +7)

Adjusts the treble. Positive values boost treble, negative values cut it.

MIDDLE FREQUENCY (1 to 14)

Sets the central frequency in the midrange that will be adjusted by the Middle Level control. Larger values indicate higher frequencies.

MIDDLE LEVEL (-7 to +7)

This adjusts the midrange level. Positive values for boost, negative values for cut.

LOW LEVEL (-7 to +7)

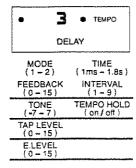
Adjusts the bass. Positive values boost the bass, negative values cut it.

TOTAL LEVEL (-7 to +7)

Adjusts the volume of the Equalizer (when it's on). This is used for adjusting the balance between effects as they are turned off and on.

DELAY

This is a versatile delay function that creates delay times of up to 1.8 seconds (mono output). In addition to standard delay treatments, there are also stereo delay effects, such as Tap and Panning Delay. Also, by connecting a foot switch (optional), you can set the delay time in real time.

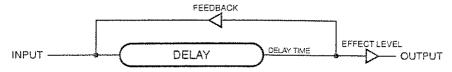


MODE (1 or 2)

Sets the delay mode.

Mode 1: Mono

Has a maximum delay time of 1.8 seconds for monaural input and output.

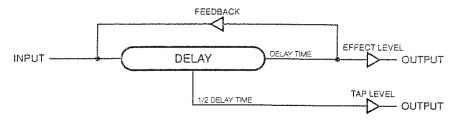


Mode 2: Tap

A special mode for stereo output.

The time set for delay is split into two and allocated to the left and right channels.

* Depending on other effects that you use at the same time, you may not get the stereo effect that you want. For more information, see "Effects Algorithms" on page 48.



FEEDBACK (0 to 15)

Adjusts the feedback volume of the delayed sound. Larger values mean more and more repeats of the sound, while a value of "0" gives you a single repeat of the delayed sound.

* When Mode 2 (Tap Delay) is selected and the setting for FEEDBACK is "0," the delayed sound is output once to each channel.

TONE (-7 to +7)

Adjusts the timbre (tone quality) of the effect. Positive values boost the treble, making the sound brighter.

TAP LEVEL (0 to 15)

This parameter is only for Mode 2 (Tap). It adjusts the effect volume for the right channel.

- * See the "Mode" figures for the TAP LEVEL settings.
- * This parameter is not available when "Mode 1" is selected.

EFFECT LEVEL (0 to 15)

Adjusts the volume of the delayed sound. Larger values boost the volume of the delayed sound, and at "13" the direct and delayed volumes are almost the same.

DELAY TIME (1 ms to 1.8 s)

Adjusts the delay time (the amount of time between the signal and its first repeat). When "Mode 2" is selected, the delay time is half of the set value. Delay times are shown in the display as follows:

1 ms to 95 ms: 1 to 95 100 ms to 980 ms: /☐ to 98. 1.0 s to 1.8 s: l□ to lB

INTERVAL (1 to 9)

This parameter is needed when changing the delay time in real time. The delay interval is set according to the standard tempo (which in turn is set by tapping the foot switch). The standard tempo is converted to delay time (as quarter-notes), and the delayed sound is output.

* For details on setting a delay time with INTERVAL, check out "Changing the Delay Time in Real Time" on page 18.

TEMPO HOLD (On or Off)

This parameter is needed when using the standard tempo to determine the delay time. The setting for this parameter determines whether the standard tempo that has been set is used. When the delay time is set with the standard tempo, operation changes according to the TEMPO HOLD setting as follows:

ON (use the standard tempo):

The standard tempo of the previous Patch is used without change, and the delay time is determined according to the settings for the standard tempo and interval.

* If the previous Patch did not use a standard tempo, then the setting for DELAY TIME is used.

OFF (do not use the standard tempo): The standard tempo of the previous Patch is not used, and the setting for DELAY TIME is used instead.

SHORT DELAY

This is a stereo delay exclusively for short delays (up to 400 ms).



MODE (1-2) TIME (1ms-400ms) FEEDBACK (0-15) E.LEVEL (0-15)

MODE (1 or 2)

Sets the mode of output for the Short Delay.

Mode 1: Mono

Output is monaural.

Mode 2: D/E (Direct/Effect)

During stereo output, the direct and effect sounds are output separately to the left and right channels.

- * During monaural output, Mode 2 has no effect.
- * Depending on other effects that you use at the same time, you may not get the stereo effect that you want. See "Effects Algorithms" on page 48 For more details on this.

DELAY TIME (1 ms to 400 ms)

Adjusts the delay time (the amount of time between the signal and its first repeat). Delay times are shown in the display as follows:

1 ms to 95 ms: 1 to 95 100 ms to 400 ms: 10 to 40

FEEDBACK (0 to 15)

Adjusts the feedback volume of the delayed sound. Larger values mean more and more repeats of the sound, while a value of "0" gives you a single repeat.

EFFECT LEVEL (0 to 15)

Adjusts the volume of the delayed sound.

CHORUS / FLANGER / PITCH SHIFTER

Chorus makes the sound "thicker" and "fatter," while the Flanger adds an undulating effect to the timbre of the sound. Pitch Shifter lets you actually change the pitch of the note played.

* Depending on what other effects you use at the same time, the stereo effect you get may not be what you want. For more information, see "Effects Algorithms" on page 48.

• •	• 5		
CHO / FL	/ P.SHIFTER		
MODE (1-12)			
PRE DELA (ms)	Y DELAY (1ms - 200ms)		
RATE (1-25)	PITCH (=12 - 12)		

FB (0 – 15)

BAL (0-15)

DEPTH (0 = 15)

E.LEV RES (0-15) (0-15)

MODE (1 to 12)

This selects the type of effect. Depending on the mode you choose, you get chorus effects, flanging, or pitch shifting.

Mode 1: Stereo Chorus (Sync)

This chorus outputs the uni-phase effects to the left and right channels.

Mode 2: Stereo Chorus (Inverse)

This chorus outputs the inverted phase effects to the left and right channels.

Mode 3: Stereo Hi Band Chorus (Sync)

This chorus outputs the uni-phase effects to the left and right channels. Chorus is applied only to the upper harmonics of the sound, so the bass end is not affected.

Mode 4: Stereo Hi Band Chorus (Inverse)

This chorus outputs the inverted phase effects to the left and right channels. Chorus is applied only to the upper harmonics of the sound, so the bass end is not affected.

Mode 5: Analog Sim Chorus (Mono)

This circuit simulates an analog chorus sound. Use this mode when you want monaural output of a simulated analog chorus.

Mode 6: Analog Sim Chorus (D/E)

This circuit also simulates an analog chorus sound. In this stereo-only mode, the direct and effect sounds are output separately to the left and right channels. This gives you a really broad chorus sound by using air rather than electronics to mix the direct and effect sounds.

Mode 7: Stereo Flanger

This creates a standard flanging effect.

Mode 8: Stereo Hi Band Flanger

Flanging is applied only to the upper harmonics of the sound, so the bass end is not affected.

Mode 9: Pitch Shifter (Detune)

This takes the direct signal and adds sound which is subtly higher in pitch, thereby creating a detuned effect.

Mode 10: Pitch Shifter (Chromatic)

This effect lets you actually change the range of the pitch up or down by as much as one octave (in semi-tone steps).

Mode 11: Pitch Shifter + Doubling (Detune)

This takes the direct signal and adds sound which is subtly higher in pitch a number of times, thereby producing a detuned effect with doubling.

Mode 12: Pitch Shifter + Doubling (Chromatic)

This changes the range of the pitch by as much as one octave, and outputs the sound at a number of different times to create a pitch shifting effect with doubling.

PRE DELAY

This adjusts the time between output of the direct and effect sounds. This gives different results depending on which effect has been selected.

Chorus (1 ms to 30 ms)

Increasing the pre-delay parameter creates a "doubling effect" (like several instruments playing in unison).

Flanger (1.1 ms to 4.0 ms)

Hi Band Flanger (0.1ms to 3.0ms)

Adjusting the pre-delay parameter varies the central frequency of the flanging effect. The shorter this pre-delay time, the higher the central frequency. Ordinarily this would be a "Manual" parameter.

DELAY

Pitch Shifter (1 ms to 200 ms)

The effect produced will vary from mode to mode.

Mode 9: Detune

Mode 10: Chromatic (Semitone)

This adjusts the time between output of the direct and effect sounds. Usually this is set to 0 ms, but by increasing Feedback and lengthening the Pre Delay setting ,you can get an interesting effect where you play one note which is followed by a decaying series of notes, each one rising (or falling) slightly in pitch. Try it!

* Although Pre Delay may be set to 0 ms, in reality it takes the pitch shifter a fraction of a second to process and shift the note, so there will be a brief delay before the effect sound is output.

Mode 11: Detune + Doubling

Mode 12: Chromatic + Doubling

This adjusts the delay time for the doubling effect.

RATE (1 to 25)

This parameter is used for both Chorus and Flanger sounds.

Chorus

Adjusts the speed of modulation for the chorus effect. Larger values create faster speeds.

Flanger

Adjusts the frequency of the undulations. Larger values create faster undulations.

PITCH (-12 to +12)

This adjusts the amount of pitch shift (the amount of change in the sound's pitch). The magnitude of the change varies according to the mode setting:

Mode 9: Detune

Mode 11: Detune + Doubling

Adjusts the change in the pitch-shifted sound from the direct sound; in 12 stages, up or down. The larger the value, the greater the shift in pitch.

Mode 10: Chromatic (Semitone)

Mode 12: Chromatic + Doubling

Adjusts the amount of pitch shift (the amount of change in the sound's pitch) in semi-tone steps. You can set any value up to one octave (12 semi-tones) higher or lower.

DEPTH (0 to 15)

This parameter is used for both Chorus and Flanger sounds.

Chorus

Adjusts the modulation depth of the chorus effect. Larger values create greater depth.

Flanger

Adjusts the depth of the undulations. Larger values create greater depth.

FEEDBACK (0 to 15)

This parameter is used with the Pitch Shifter. It adjusts the feedback volume. Because pitch shift is applied to each feedback repetition, you'll get a gradual rising (or falling) of pitch.

EFFECT LEVEL (0 to 15)

This parameter is used with Chorus. It adjusts the effect level.

RESONANCE (0 to 15)

This parameter is used with the Flanger. It adjusts the flanger resonance (feedback volume). Larger values increase the intensity of the flanger effect.

BALANCE (0 to 15)

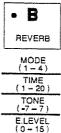
This parameter is used with the Pitch Shifter. It adjusts the balance between the direct and effect sounds. The larger the value, the greater the proportion of effect sound.

- * When set at "15," only effect sound is output.
- * When set at "8," direct and effect volumes are equal.
- * When set at "0," only direct sound is output.

REVERB

Reverb is the multiple reflections of sound which build up naturally in any large enclosed space. For example, if you clap your hands in a church, there is a lingering echo-like sound called reverberation or reverb. The quality of the reverb depends upon the size of the space (room, hall, and so on), and on the shape and material of the reflecting surfaces (such as the walls and ceiling).

All these elements are digitally simulated by the ME-X.



MODE (1 to 4)

This selects the Reverb mode. With this setting, you can select a variety of different room simulations.

1 (Hall 1)

Simulates the clear reverb sound of a large concert hall.

2 (Hall 2)

Simulates the subtle reverb effect of a mid-sized concert hall.

3 (Room)

Simulates the bright, trebly reverb inside a very live room.

4 (Plate)

Simulates a plate reverb (an early analog device that used resonating steel plates). The upper frequencies are emphasized to give sound a metallic resonance quality.

TIME (1 to 20)

Adjusts the reverberation time. Larger values correspond to longer reverberation.

TONE (-7 to +7)

Adjusts the tone quality of the reverb sound. Positive values emphasize the upper frequencies.

EFFECT LEVEL (0 to 15)

Adjusts the reverb volume.

MASTER LEVEL (0 to 50)

This adjusts the volume of sound output from the ME-X.

* If all effects are off and you want the input guitar signal to be the same volume as the output, set this to "44."



LEVEL (0-50)
LOOP 1 (an / off)
LOOP 2 (on / off)
LOOP 3 (on / off)
NS THSHD (0 - 15)

LOOP 1/2/3 (On or Off)

This turns any compact pedals (external effects) connected to the Loops (1, 2, or 3) on and off.

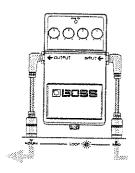
The setting for each Loop appears on the panel in the Edit mode, or is indicated by the LOOP LEDs (above the pedals) in the Play mode.

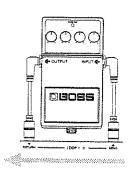
MASTER

LEVEL (0 - 50)
LOOP 1 (on foff)
LOOP 2 (on / off)
LOOP 3 (on / off)
NS THSHD (0 ~ 15)

When on:

When off:

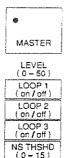




- * Be sure the effects are on for the effects connected to the Loops.
- * For an explanation of how to hook up effects to the Loops, check out "Setting Up External Compact Pedals" on page 9.

NOISE SUPPRESSOR

This circuit suppresses hum and noise from your guitar's pickups. By taking into account the guitar sound envelope (the variation of volume over time), the ME-X subtracts the noise but not the resonance of your guitar, giving you a more natural sound.



THRESHOLD (0 to 15)

Adjustable for the noise level: high for high noise, low for low. Set this so you can hear the guitar notes decay naturally.

- * When set to "0", the Noise Suppressor will become OFF condition
- * If the Threshold is set too high, it may cut out soft guitar notes as well as noise! This might be the problem if you are playing but nothing's coming out.

Section IV

<u>Using MIDI</u>

The ME-X is equipped with MIDI OUT connector. These will enable you to change patches and setting data of other MIDI devices.

About MIDI

MIDI stands for Musical Instrument Digital Interface. It is a world-wide standard that allows digital musical instruments to transmit and receive performance data, Patch switching messages, and other kinds of digital information. This data will be readable and understandable by any instrument conforming to the MIDI standard, regardless of who made it or even what kind of instrument it is.

In the MIDI standard, "performance data" means data describing things like which notes are played at what volume, what sounds are being selected, or which pedal is depressed, for example. These are known as MIDI "messages."

1. Exchanging MIDI Messages

First, we'll explain how MIDI messages are exchanged.

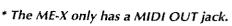
About MIDI Connectors

MIDI messages are exchanged through three MIDI jacks. MIDI cables are connected to these ports depending on your requirements.

MIDI IN: Receives messages from external MIDI devices.

MIDI OUT: Transmits messages to external MIDI devices.

MIDI THRU: Retransmits the messages received via the MIDI IN without any change.

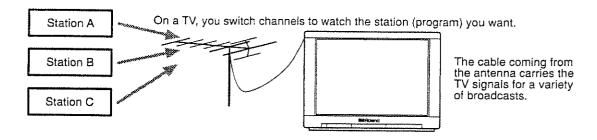




MIDI Channels

With MIDI, you can use a single cable to transmit messages to many MIDI devices at once, with each device getting only the specific messages intended for it. This is the origin of the MIDI channel concept.

You might think of MIDI channels as similar to television channels. When you switch television channels, you can see programs from a variety of different TV stations, but you must be receiving on the same channel as the TV station is broadcasting in order to see the program.



MIDI has channels too, numbered from 1 to 16, and only when the transmitting channel is the same as the receiving channel is the MIDI data transmitted.

2. The Main MIDI Messages Handled by the ME-X

There are a variety of different kinds of MIDI messages, and each has information about a particular kind of MIDI performance nuance. MIDI messages are broadly divided into Channel messages (those that have information specific to a channel), and System messages (information that is not channel-specific but applies to the system as a whole).

* The ME-X does not handle System messages.

Channel Messages

The MIDI messages that transmit the actual performance data are Channel messages, and these are the ones that are doing most of the actual work of controlling the instrument. What can be controlled by each MIDI message is something that varies from one instrument to the next, and is designed into that instrument.

Program Change Messages

Generally, these Patch-changing messages enable you to switch between as many as 128 different program numbers.

Control Change Messages

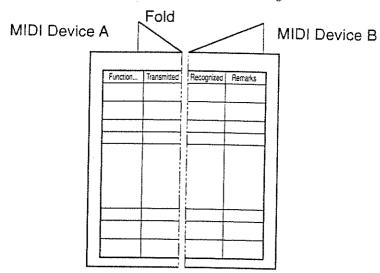
Control Change messages provide information that adds expressiveness to what you play. Each function is grouped by a control number, and the functions that can be controlled vary from one MIDI device to another.

The ME-X outputs information on the operation of the expression pedal as Control Change messages with a fixed control number.

MIDI Implementation Chart

You can swap data with a variety of different instruments using MIDI, but you can't give a MIDI instrument a capability it wasn't designed with. That is, if a MIDI device isn't designed to respond to a certain kind of MIDI message, there's no point in sending it that message. The messages that can be exchanged between two connected MIDI devices are only those that both instruments can understand and respond to.

You can quickly determine what MIDI messages are common to two devices by looking at the MIDI Implementation chart that is included in every MIDI instrument's owner's manual. The chart dimensions are standardized, so you can physically match the two charts and see at a glance what will work and what won't.



^{*} For more detailed information about handling MIDI messages, refer to "MIDI Implementation" on page 51.

So What Can You Do with MIDI?

Here's what you can do with the ME-X hooked up to external MIDI devices.

* The ME-X is set permanently to MIDI channel 1. When sending MIDI data, be sure to set the receiving MIDI device to channel 1 as well, or you won't be able to exchange messages.

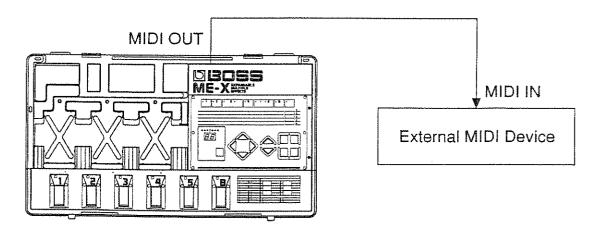
1. Selecting Patches Via MIDI

You can use MIDI Program Change messages to switch Patches on an external MIDI device by switching Patches of the ME-X. The Patch numbers on the ME-X correspond to the 26 program numbers as follows:

			E	3AN l	<	
		1	2	3	4	5
	7"	1	6	11	16	21
H	2	2	7	12	17	22
NUMBER	3	3	8	13	18	23
S	4	4	9	14	19	24
	5	5	10	15	20	25
		MAN	IUAL	. : 26		

By making the connections shown below, you can select a Patch on the ME-X and simultaneously send out the corresponding Program Change message to the external MIDI device. That device will switch over to whatever Patch or program on it corresponds to the received Program Change number.

* Program Change messages are sent on channel 1.



2. Sending Expression Pedal Data with MIDI

You can use MIDI's Control Change messages to send information on the operation of the expression pedal from the ME-X to external MIDI devices. If the MIDI devices are set up to receive these messages, you can then use the pedal to control the volume or change parameters "on the fly" as you're playing.

* Pedal messages are sent on the general-purpose 16 jack on channel 1.

Section V

<u>Appendices</u>

Troubleshooting

If you're not getting any sound, or you think the ME-X is not functioning properly, please check the following things. If you can't resolve the problem, contact your Roland retailer or your nearest Roland Service Center.

No Sound/Low Volume

Is all the equipment hooked up correctly?

Are the connected amps or mixers turned on, and are the volumes set properly? Are the compact pedals (external effects) hooked up to the ME-X working correctly? Are the Patch settings correct?

For example, check to see that the Level or some other parameter is not set too low. Is the Level set all the way to zero by the expression pedal? Is the Tuner in operation? Is there a damaged connection cable?

Can't Select a Patch

Have you selected a Patch number with a Number pedal? The Patch won't change otherwise. Are you in the Bypass mode?

Are you in the Manual mode?

Are you in the Edit mode?

Is the Tuner in operation?

Initialization-Restoring the Original Factory Settings

If you want, you can return any or all of the Patches to their original factory default settings. This is called "Initialization." There is a method for initializing just one Patch, or all the Patches on the ME-X.

Initializing One Patch

- 1. Turn off the power.
- 2. While holding down the PARAMETER [a] and [b] buttons, turn the power back on.

The EDIT/ESC indicator will flash.

3. Select the Patch you want to initialize.

If you've forgotten how, see "Selecting a Patch" on page 14.

* If you want to cancel the initialization, press the [EDIT/ESC] button.

4. Press the [WRITE] button.

The Patch you've chosen is initialized.

5. To end the operation, press the [EDIT/ESC] button.

The ME-X will return to its default power-up condition.

If you want to initialize more Patches, repeat steps 3 and 4.

Initializing All Patches

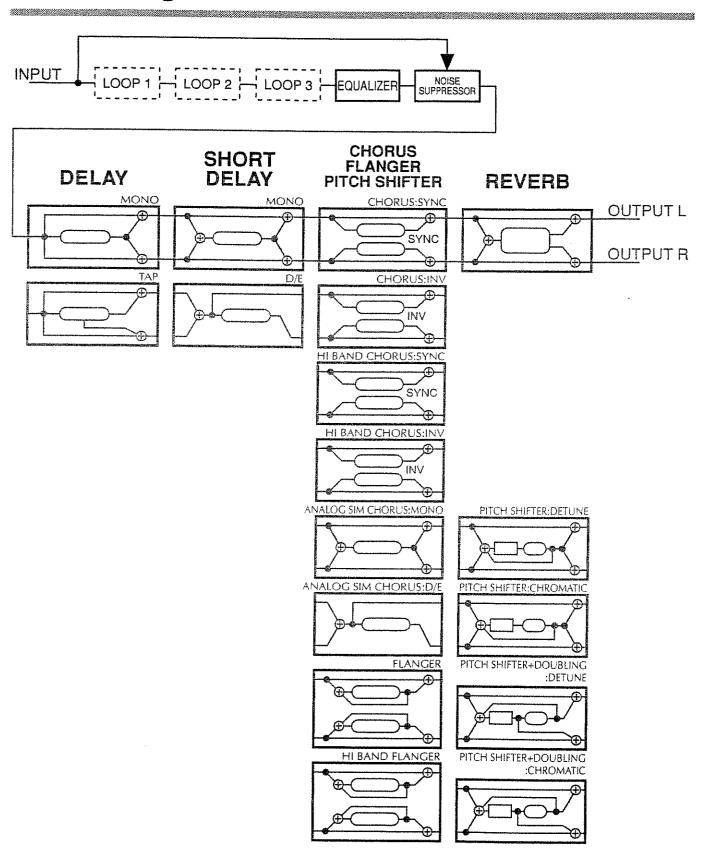
- 1. Turn off the power.
- 2. While holding down the PARAMETER [♥] and [﴿] buttons, turn the power back on.

The EDIT/ESC indicator will flash, and "L d" will appear in the display.

- * If you want to cancel the initialization, press the [EDIT/ESC] button.
- 3. Press the [WRITE] button.

All the Patches will be initialized. After that, the ME-X will return to its default power-up condition.

Effects Algorithms



Factory Default Settings

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Section V: Appendices Blank Chart

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EXPANDABLE MULTIPLE EFFECTS Model ME-X

MIDI Implementation

Date : Dec. 3. 1993 Version : 1.00

TRANSMITTED DATA

Control Change

Status Second Third 80H 10H vvH

vv = Control Value

00H - 7FH (0 - 127)

Program Change

Status Second COH ppH

pp = Program Number

00H -19H (0 - 25)

MIDI Implementation Chart

Date: Dec. 3. 1993 Version: 1.00

	Function•••	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 1	x x	
Mode	Default Messages Altered	X X	x x x	
Note Number	True Voice	X Molecterististististis	x x	
Velocity	Note ON Note OFF	x x	x x	
After Touch	Key's Ch's	x x	X X	
Pitch Bend		x	х	,
	0 - 31	o 16	x	
Control Change				
	64 - 120	x	x	
Prog Change	True #	x 0 - 25	x	
System Ex	clusive	x	х	
System Common	Song Pos Song Sel True	x x x	x x x	
System Real Time	Clock Commands	x x	x x	
AUX Messages	Local ON/OFF All Notes OFF Active Sense Reset	x x x x	x x x x	
Votes				•

Mode 1 : OMNI ON, POLY Mode 3 : OMNI OFF, POLY Mode 2 : OMNI ON, MONO Mode 4 : OMNI OFF, MONO

o : Yes x : No

Specifications

ME-X: EXPANDABLE MULTIPLE EFFECTS

Signal Processing

AD Conversion: 16 bit x 2 Adaptive Focus Method

DA Conversion: 16 bit linear

Sampling Frequency

44.1kHz

Patches

25 + Manual Setting

Effects

Equalizer

Noise Suppressor

Delay

Short Delay

Chorus / Flanger / Pitch Shifter

Reverb

Loop 1/2/3

Nominal Input Level

-20dBm

Input Impedance

 $1M\Omega$

Nominal Output Level

-20dBm

Output Impedance

 $5.7 k\Omega$

Recommended Load Impedance

 $47k\Omega$ or greater

Display

7 segments, 2 charactors (LED)

Connectors

INPUT lack

OUTPUT Jack L (MONO) / R

LOOP SEND Jack x 3

LOOP RETURN Jack x 3

Power Supply Jack

Expression Pedal Jack

TEMPO IN Jack

MANUAL REMOTE Jack

TUNER REMOTE Jack

External Control (EXT CTL) OUT Jack

MIDI OUT Connector

PHONE Jack

AC Adaptor Jack

Power Supply

9V DC : AC Adaptor

Power Consumption

380mA

Dimensions

630(W) x 84(D) x 440(H) mm

24-13/16(W) x 3-5/16 (D) x 17-3/8(H) inches

Weight

5.2kg / 11lb 8oz (excluding AC Adaptor)

Accessories

AC Adaptor Roland ACI Series

Signal cords x 6

DC Supply cord x 1

Owner's Manual

* 0dBm=0.775Vrms

* In the interest of product development, the specifications and/or appearance of this unit are subject to change without proior notice.

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Adaptive Focus Method :

A Boss original technique that significantly reduces quantization noise by combining multiple samples to optimally match signal levels through analog-to-digital convension.

Section V: Appendices

Index

Algorithms	48
Bypass	.17
Canceling Edits	
CHORUS	36
Compact Pedal9	,11
Control Change Messages	42
Copy	
DELAY	
Edit Mode	
EQUALIZER	
- CO	. 92
Expression Pedal	
EXTERNAL CONTROL OUT	
FLANGER	36
Initializing	47
INTERVAL	18
LOOP	
Manual Mode MASTER LEVEL	15
MIDI	
MIDI Implementation	51
MIDI Implementation Chart	52
NOISE SUPPRESSOR	
Note Name Display	
Patch	14
PITCH SHIFTER	36
Play Mode11,	
Program Change Message	43
REVERB	
SHORT DELAY	
Standard Pitch	22
Standard Tempo	19
TEMPO HOLD	
TEMPO IN Jack	
Tuner	20
Tuning Guide Indicator	21
Write Operation	27

Information

When you need repair service, call your local Roland Service Station or the authorized Roland distributor in your country as shown below.

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