This application guide consists of “Example Setups (Connections)” and “MS-3 Example Settings (Functions).”

**Example Setups (Connections)**
This explains how to connect the MS-3 with other equipment

**MS-3 Example Settings (Functions)**
This section explains how to make settings in order to use the MS-3’s functions.
Example Setsups (Connections)

This section introduces three examples of systems that use the MS-3. Refer to the system that’s most similar to what you have in mind, and set up your own system as appropriate.

Example Setup (1)

This example setup includes three distortion pedals that are connected to LOOPS, and one amp.

MEMO

You can connect an expression pedal and footswitch as necessary. If your setup includes these, you can use them to control the volume or specific parameters. If you connect an expression pedal and footswitch, turn off the power before connecting them.

Connections

• Connect your guitar (bass) to the INPUT jack.
• Connect your three distortion pedals to each loop.
  * Connect SEND to the INPUT of each effect, and connect RETURN to the OUTPUT of each effect.
  * The effects connected to the loops should be left ON. The loop on/off status is specified by the MS-3.
• If you’re using an expression pedal connected to the CTL IN EXP 1 CTL 1/2 jack, make the appropriate settings for EXP1 inside CTL,ASSIGN&MIDI SETTING.
  * Additional detailed operations can be specified in ASSIGN 1–8.
• If you’re using a footswitch connected to the CTL IN EXP 2 CTL 3/4 jack, make the appropriate settings for CTLIN3 and CTLIN4 inside CTL,ASSIGN&MIDI SETTING.
  * Additional detailed operations can be specified in ASSIGN 1–8.

Example Functions

| Turning Effects On/Off in Manual Mode .................... (p. 6) |
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| Other Convenient Functions ........................................(p. 14) |
Example Setup (2)

This example setup includes three distortion pedals that are connected to LOOPS, an external MIDI-compatible pedal, and one amp.

**MEMO**

- You can connect an expression pedal and footswitch as necessary. If your setup includes these, you can use them to control the volume or specific parameters. **If you connect an expression pedal and footswitch, turn off the power before connecting them.**
- The MIDI-compatible pedal can be controlled from the MS-3. (Tempo synchronization and parameter control)

### Connections

- Connect your guitar (bass) to the INPUT jack.
- Connect your three distortion pedals to each loop.
  - Connect SEND to the INPUT of each effect, and connect RETURN to the OUTPUT of each effect.
  - The effects connected to the loops should be left ON. The loop on/off status is specified by the MS-3.
- Connect the MS-3’s OUTPUT L/MONO to the DD-500’s INPUT. In the same way, connect the MS-3’s MIDI OUT to the DD-500’s MIDI IN.
- If you’re using an expression pedal connected to the CTL IN EXP 1 CTL 1/2 jack, make the appropriate settings for EXP1 inside CTL,ASSIGN&MIDI SETTING.
  - Additional detailed operations can be specified in ASSIGN 1–8.
- If you’re using a footswitch connected to the CTL IN EXP 2 CTL 3/4 jack, make the appropriate settings for CTLIN3 and CTLIN4 inside CTL,ASSIGN&MIDI SETTING.
  - Additional detailed operations can be specified in ASSIGN 1–8.

### Example Functions

- **Turning Effects On/Off in Manual Mode** ................................ (p. 6)
- **Turning Effects On/Off in Memory Mode** ............................... (p. 9)
- **Using an Externally Connected Expression Pedal to Control WAH** ................................ (p. 10)
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- **Switching the Memory of a MIDI-Compatible Pedal When You Switch Patches** .................................(p. 11)
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- **Varying the Sound in Real Time, Synchronized to the BPM** .................................................................(p. 13)
- **Holding the BPM of the Previous Patch into the Next Patch (Tempo Hold Function)** .................................(p. 14)
- **Other Convenient Functions** ............................................(p. 14)
Example Setup (3)

This example setup includes three distortion pedals that are connected to LOOPS, and two amps.

**MEMO**

- You can connect an expression pedal and footswitch as necessary. If your setup includes these, you can use them to control the volume or specific parameters. If you connect an expression pedal and footswitch, turn off the power before connecting them.
- You can switch the outputs from the MS-3 to the amps, or switch channels on the amp.

**Example Functions**

- **Turning Effects On/Off in Manual Mode** ............... (p. 6)
- **Turning Effects On/Off in Memory Mode** ............... (p. 9)
- **Using an Externally Connected Expression Pedal to Control WAH** .......................... (p. 10)
- **Using an Externally Connected Footswitch to Operate Bank Up/Bank Down** ........................... (p. 10)
- **Switching Channels of an Amp When You Switch Patches** ........................................... (p. 12)
- **Switching Amps When You Switch Patches (When Using Two Amps)** .......................... (p. 12)
- **Varying the Sound in Real Time, Synchronized to the BPM** .......................... (p. 13)
- **Holding the BPM of the Previous Patch into the Next Patch (Tempo Hold Function)** ................... (p. 14)
- **Other Convenient Functions** .......................... (p. 14)
This section explains how to make settings in order to use the MS-3's functions. Depending on your setup, some functions might not do anything; refer to "Example Setups" (p. 3–p. 5).

**About the Memory Mode / Manual Mode**

The MS-3 has two modes: memory mode and manual mode.

- In memory mode you can switch patches and banks.
- In manual mode you can use the number switches [1]–[4] to operate various parameters such as turning on/off the effects and effect loops used by the selected patch, and controlling external connected devices.

In memory mode the indicators are lit blue; in manual mode the indicators are lit red. The display indications also change.

**Turning Effects On/Off in Manual Mode**

**Example 1**

In manual mode, turning L1 on only while you hold down number switch [1]

1. Press the [EDIT] button. In the effect chain screen, choose “CTL” with the [1] knob, and press the [ENTER] button.
2. Choose “NUM1” with the [1]–[3] knobs, and press the [ENTER] button.
3. Use the [1] knob to set FUNC to “L1.”
4. Use the [2] knob to set MODE to “MOMENT.”
5. Use the [3] knob to set ACTION to “OFF->ON.”
   * If you specify “ON->OFF,” the setting is off only while you hold down the switch.
6. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.
   * If you switch patches without performing the Write operation, your edits are discarded.

**MEMO**

The MS-3 lets you assign a wide variety of parameters. For details, please refer to “Parameter Guide” (PDF).
**Example 2**

In manual mode, pressing number switch [1] to turn L1 and L2 on/off

* In order to operate multiple parameters simultaneously, the “PREFERENCE” (MENU) setting NUM1 must be set to “PATCH.” If this is set to “SYSTEM,” only the setting of the single item listed below will operate.

1. In steps 1–4 of example 1 (p. 6), set FUNC to “L1” and MODE to “TOGGLE.”
   - If you want to switch both L1 and L2 on/off simultaneously
     Perform the subsequent operations with L1 and L2 turned OFF.
   - If you want to switch L1 and L2 alternately on/off
     Perform the subsequent operations with L1 turned OFF.

2. Press the [EXIT] button to return to the previous screen.
3. Choose “ASSIGN 1”–“ASSIGN 8” with the [1]–[3] knobs, and press the [ENTER] button.
4. Use the [1] knob to set ASSIGN to “ON.”
5. Use the [2] knob to set SOURCE to “NUM1.”
6. Use the [3] knob to set MODE to “TOGGLE.”
7. Press the [PAGE >] button to switch the PAGE 2.
8. Use the [1] knob to set CATEGORY to “L2.”
9. Use the [3] knob to set TARGET to “ON/OFF.”
10. Press the [PAGE >] button to switch the PAGE 3.
11. Use the [1] knob to set MIN to “OFF.”
12. Use the [3] knob to set MAX to “ON.”
13. Press the [PAGE >] button to switch the PAGE 4.
14. Use the [1] knob to set ACT LOW to “0.”
15. Use the [3] knob to set ACT HIGH to “127.”
16. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.
   * If you switch patches without performing the Write operation, your edits are discarded.

**MEMO**

The MS-3 lets you assign a wide variety of parameters. For details, please refer to “Parameter Guide” (PDF).
Example 3

In manual mode, pressing number switch [2] to switch the FX1:OD/DS setting DRIVE (30 ↔ 80)


2. In the effect chain screen, choose “CTL” with the [1] knob, and press the [ENTER] button.

3. Choose “NUM2” with the [1]–[3] knobs, and press the [ENTER] button.

4. Use the [1] knob to set FUNC to “LED.”

5. Use the [2] knob to set MODE to “TOGGLE.”

6. Use the [3] knob to set ACTION to “OFF->ON.”

7. Press the [EXIT] button to return to the previous screen.

8. Choose “ASSIGN 1”–“ASSIGN 8” with the [1]–[3] knobs, and press the [ENTER] button.

9. Use the [1] knob to set ASSIGN to “ON.”


11. Use the [3] knob to set MODE to “TOGGLE.”

12. Press the [PAGE >] button to switch the PAGE 2.

13. Use the [1] knob to set CATEGORY to “FX1 OD/DS.”

14. Use the [3] knob to set TARGET to “DRIVE.”

15. Press the [PAGE >] button to switch the PAGE 3.

16. Use the [1] knob to set MIN to “30.”

17. Use the [3] knob to set MAX to “80.”

18. Press the [PAGE >] button to switch the PAGE 4.

19. Use the [1] knob to set ACT.LOW to “0.”


21. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.

* If you switch patches without performing the Write operation, your edits are discarded.

With the above settings, operating number switch [2] in manual mode switches the FX1 OD/DS “DRIVE” setting between 30 (indicator unlit) and 80 (indicator lit).

MEMO

The MS-3 lets you assign a wide variety of parameters. For details, please refer to “Parameter Guide” (PDF).
Turning Effects On/Off in Memory Mode

Example 1

In memory mode, pressing the number switch of the currently selected patch (current patch) to turn DLY on/off

1. Press the [EDIT] button. In the effect chain screen, choose “CTL” with the [1] knob, and press the [ENTER] button.
2. Choose “CURRENT NUMBER” with the [1]–[3] knobs, and press the [ENTER] button.
3. Use the [1] knob to set FUNC to “DLY.”
4. Use the [2] knob to set MODE to “TOGGLE.”
5. Use the [3] knob to set ACTION to “OFF->ON.”
6. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.
   * If you switch patches without performing the Write operation, your edits are discarded.

MEMO

The MS-3 lets you assign a wide variety of parameters. For details, please refer to “Parameter Guide” (PDF).

Example 2

In memory mode, turning on DLY and REV only while the number switch of the currently selected patch (current number) is held down

* In order to operate multiple parameters simultaneously, the “PREFERENCE” (MENU) setting CURRENT NUMBER must be set to “PATCH.” If this is set to “SYSTEM,” only the setting of the single item listed below will operate.

1. In steps 1–4 of example 1, set FUNC to “DLY” and MODE to “MOMENT.”
2. Press the [EXIT] button to return to the previous screen.
3. Choose “ASSIGN 1”–“ASSIGN 8” with the [1]–[3] knobs, and press the [ENTER] button.
4. Use the [1] knob to set ASSIGN to “ON.”
5. Use the [2] knob to set SOURCE to “CURNUM.”
6. Use the [3] knob to set MODE to “MOMENT.”
7. Press the [PAGE >] button to switch the PAGE 2.
8. Use the [1] knob to set CATEGORY to “REV.”
9. Use the [3] knob to set TARGET to “ON/OFF.”
10. Press the [PAGE >] button to switch the PAGE 3.
11. Use the [1] knob to set MIN to “OFF.”
12. Use the [3] knob to set MAX to “ON.”
13. Press the [PAGE >] button to switch the PAGE 4.
14. Use the [1] knob to set ACT.LOW to “0.”
15. Use the [3] knob to set ACT.HIGH to “127.”
16. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.
   * If you switch patches without performing the Write operation, your edits are discarded.

MEMO

The MS-3 lets you assign a wide variety of parameters. For details, please refer to “Parameter Guide” (PDF).
MS-3 Example Settings (Functions)

Using an Externally Connected Expression Pedal to Control WAH


2. In the effect chain screen, choose “CTL” with the [1] knob, and press the [ENTER] button.

3. Choose “EXP1” with the [1]–[3] knobs, and press the [ENTER] button.

4. Use the [1] knob to set FUNC to “F1:WH/PB” or “F1:W/P/F.”
   * For more about “F1:WH/PB” and “F1:W/P/F,” refer to “Parameter Guide” (PDF).

5. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.
   * If you switch patches without performing the Write operation, your edits are discarded.

MEMO

- By using an additional ASSIGN, you can control multiple parameters simultaneously with FX1:WAH. In order to operate multiple parameters simultaneously, the “PREFERENCE” (MENU) setting EXP 1 must be set to “PATCH.”
- The MS-3 lets you assign a wide variety of parameters. For details, please refer to “Parameter Guide” (PDF).

Using an Externally Connected Footswitch to Operate Bank Up/Bank Down

Example

Using a footswitch (FS-7) connected to the CTL 3/4 jack to operate bank up/bank down for any patch (system operation)

1. Press the [MENU] button. In the MENU screen, choose “PREF” with the [1]–[3] knobs, and press the [ENTER] button.

2. Press the [PAGE >] button to switch the PAGE 4.


4. Press the [EXIT] button two times to return to the play screen.

5. Press the [EDIT] button. In the effect chain screen, choose “CTL” with the [1] knob, and press the [ENTER] button.

6. Choose “CTLIN3” with the [1]–[3] knobs, and press the [ENTER] button.

7. Use the [1] knob to set FUNC to “BANK+.”

8. Press the [EXIT] button to return to the previous screen.

9. Choose “CTLIN4” with the [1]–[3] knobs, and press the [ENTER] button.

10. Use the [1] knob to set FUNC to “BANK-.”

   * System operation settings do not require you to execute patch Write.

MEMO

The MS-3 lets you assign a wide variety of parameters. For details, please refer to “Parameter Guide” (PDF).

POINT


1. Press the [MENU] button. In the MENU screen, choose “PLAY” with the [1]–[3] knobs, and press the [ENTER] button.

2. Press the [PAGE >] button to switch the PAGE 3.

MS-3 Example Settings (Functions)

Switching the Memory of a MIDI-Compatible Pedal When You Switch Patches

For each patch, you can specify which memory of the MIDI-compatible pedal is selected.

Example

Outputting PC#1 (program number 1) when patch 01-1 is recalled

1. Choose a patch 01-1.
3. Choose “PATCH MIDI1”–“PATCH MIDI4” with the [1]–[3] knobs, and press the [ENTER] button.
4. Use the [1] knob to set the MIDI CH.
   * Set this to match the MIDI channel of the MIDI-compatible pedal that’s connected.
5. Press the [PAGE >] button to switch the PAGE 2.
6. Use the [3] knob to set PC to “1.”
7. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.
   * If you switch patches without performing the Write operation, your edits are discarded.

MEMO

If you want a CC (control change) to be transmitted simultaneously with the PC (program change), you can use PAGE 3 and PAGE 4 to specify two different CC messages. For details, please refer to “Parameter Guide” (PDF).

Using an Externally Connected Expression Pedal to Operate a Parameter of a MIDI-Compatible Pedal

Here we explain how to use an expression pedal connected to the CTL IN EXP1 CTL 1/2 jack to control a CC (control change) in real time.

Example

Using EXP1 to control CC#1 (controller number 1) in real time

1. Press the [EDIT] button. In the effect chain screen, choose “CTL” with the [1] knob, and press the [ENTER] button.
2. Choose “ASSIGN 1”–“ASSIGN 8” with the [1]–[3] knobs, and press the [ENTER] button.
3. Use the [1] knob to set ASSIGN to “ON.”
4. Use the [2] knob to set SOURCE to “EXP1.”
5. Use the [3] knob to set MODE to “MOMENT.”
6. Press the [PAGE >] button to switch the PAGE 2.
7. Use the [1] knob to set CATEGORY to “MIDI.”
8. Use the [2] knob to set the same channel as the connected MIDI-compatible pedal.
9. Use the [3] knob to set CC# to “001.”
10. Press the [PAGE >] button to switch the PAGE 3.
11. Use the [1] knob to set MIN to “0.”
13. Press the [PAGE >] button to switch the PAGE 4.
14. Use the [1] knob to set ACT.LOW to “0.”
15. Use the [3] knob to set ACT.HIGH to “127.”
16. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.
   * If you switch patches without performing the Write operation, your edits are discarded.

When the above settings are complete, operating an expression pedal connected to the CTL IN EXP1 CTL 1/2 jack transmits CC#001 with a CC VALUE of 0–127. For details, please refer to “Parameter Guide” (PDF).
Switching Channels of an Amp When You Switch Patches

Here we explain settings that switch channels on an amp that is connected to the MS-3’s CTL OUT CTL 1/2 jack.

* Check the specifications of the amp you’re using.

This explanation uses the example of an amp that works with latch-type operation.

(CTL OUT1 → OFF: CLEAN CH, ON: DRIVE CH, CTL OUT2 → OFF: REVERB OFF, ON: REVERB ON)

1. Press the [MENU] button. In the MENU screen, choose “CTLOUT” with the [1]–[3] knobs, and press the [ENTER] button.
2. Use the [1] knob to set 1 MODE and the [2] knob to set 2 MODE to “LAT.”
3. Press the [EXIT] button two times to return to the play screen.
5. Use the [2] knob to set CTLOUT1 to “ON.”
6. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.

* If you switch patches without performing the Write operation, your edits are discarded.

With the above settings, the amp switches to its DRIVE CH when you recall a patch. In the same way, turning CTLOUT2 “ON” switches REVERB “ON.” For details, please refer to “Parameter Guide” (PDF).

Switching Amps When You Switch Patches (When Using Two Amps)

Here we explain how to connect different amps to the OUTPUT L/MONO jack and the OUTPUT R jack, and switch the output destination of the sound to use different amps when you switch patches.

Example

Outputting only to the amp connected to the OUTPUT L/MONO jack

1. Press the [EDIT] button. In the effect chain screen, choose “OUTPUT” with the [1] knob, and press the [ENTER] button.
2. Use the [1] knob to set OUTSEL to “L.”
3. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.

* If you switch patches without performing the Write operation, your edits are discarded.

With the above settings, when this patch is recalled, the sound is output only to the amp that’s connected to OUTPUT L. For details, please refer to “Parameter Guide” (PDF).
Varying the Sound in Real Time, Synchronized to the BPM

Here we explain how to synchronize a virtual expression pedal (wave pedal/external pedal) to the BPM, and make it vary a parameter automatically.

**Example**

Using the wave pedal to control the FX1:PITCH SHIFTER “PITCH” between 0 → +12 in synchronization with BPM

1. Press the [EDIT] button. In the effect chain screen, use the [1] knob to select “FX1,” use the [3] knob to set TYPE to “PITCH SHIFTER” and press the [ON/OFF] button to turn FX1:PITCH SHIFTER “ON.”
2. In the effect chain screen, choose “CTL” with the [1] knob, and press the [ENTER] button.
3. Choose “ASSIGN 1”–“ASSIGN 8” with the [1]–[3] knobs, and press the [ENTER] button.
   * Don't turn ASSIGN “ON” yet. Doing so might cause unintended parameters to operate during the subsequent settings.
4. Use the [2] knob to set SOURCE to “WAV.”
5. Use the [3] knob to set MODE to “MOMENT.”
6. Press the [PAGE >] button to switch the PAGE 2.
7. Use the [1] knob to set CATEGORY to “FX1 PITCH SHIFTER.”
8. Use the [3] knob to set TARGET to “1:PITCH.”
9. Press the [PAGE >] button to switch the PAGE 3.
10. Use the [1] knob to set MIN to “0.”
12. Press the [PAGE >] button to switch the PAGE 4.
13. Use the [1] knob to set ACT.LOW to “0.”
15. Press the [PAGE >] button to switch the PAGE 5.
16. Use the [1] knob to set WAVE RATE to “BPM.”
17. Use the [3] knob to set WAVEFORM to “SINE.”
18. Press the [< PAGE] button a number of times to switch the PAGE 1.
19. Use the [1] knob to set ASSIGN to “ON.”
20. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.
   * If you switch patches without performing the Write operation, your edits are discarded.

With the above settings, FX1 PITCH SHIFTER’s 1:PITCH moves in the range 0 → +12 in synchronization with BPM.

**MEMO**

The MS-3 lets you assign a wide variety of parameters. For details, please refer to “Parameter Guide” (PDF).
Holding the BPM of the Previous Patch into the Next Patch (Tempo Hold Function)

Here we explain the tempo hold function.

* The tempo hold function can be set only when the BPM setting PREFERENCE is set to PATCH.

It is convenient to use the tempo hold function within the same song; for example if you have made a fine adjustment to the BPM in patch 01-1, the adjusted BPM is held even when you switch to patch 01-2.

Example

Specifying the tempo hold function for 01-2

1. Choose a patch 01-2.
3. Use the [3] knob to set TEMPO HOLD to “ON.”
4. Press the [EXIT] button and [ENTER] button simultaneously, then execute the Write operation.

* If you switch patches without performing the Write operation, your edits are discarded.

With the above settings, from a state in which 01-1 (BPM=P120) and 01-2 (BPM=P120), modifying patch 01-1 to BPM=P130 and then switching to patch 01-2 will recall 01-2 with BPM=P130. If you then switch back to 01-1, it is recalled with BPM=P120 because the TEMPO HOLD setting is “OFF” for 01-1.

Other Convenient Functions

Showing the BPM state with a blinking indicator at all times (BEAT INDICATOR function)

1. Press the [MENU] button. In the MENU screen, choose “PLAY” with the [1]–[3] knobs, and press the [ENTER] button.
2. Press the [PAGE >] button to switch the PAGE 4.
3. Use the [1] knob to set BEAT LED to “ON.”

With the above settings, the MEMORY/MANUAL indicator blinks in time with the BPM. In memory mode it blinks blue, and in manual mode it blinks red.

In memory mode, simultaneously pressing number switches [2] and [3] to turn the tuner on

1. Press the [MENU] button. In the MENU screen, choose “PLAY” with the [1]–[3] knobs, and press the [ENTER] button.
2. Press the [PAGE >] button to switch the PAGE 3.
3. Use the [2] knob to set 2+3 to “TUNER.”

With the above settings, simultaneously pressing number switches [2] and [3] in memory mode turns the tuner on. Perform the same operation to turn the tuner off.

Turning effects on/off or switching the effect type during effect editing

You can press the [ON/OFF] button to turn effects on/off even while in the effect edit screen. This is a convenient way to check the effects while you’re setting up your sound.

If you long-press the [ON/OFF] button, a popup screen appears, allowing you to switch the effect type. Use knobs [1]–[3] to switch the effect type.

The popup disappears a few seconds after you perform this operation, but if you want to close the popup immediately, press the [ENTER] button or [EXIT] button.