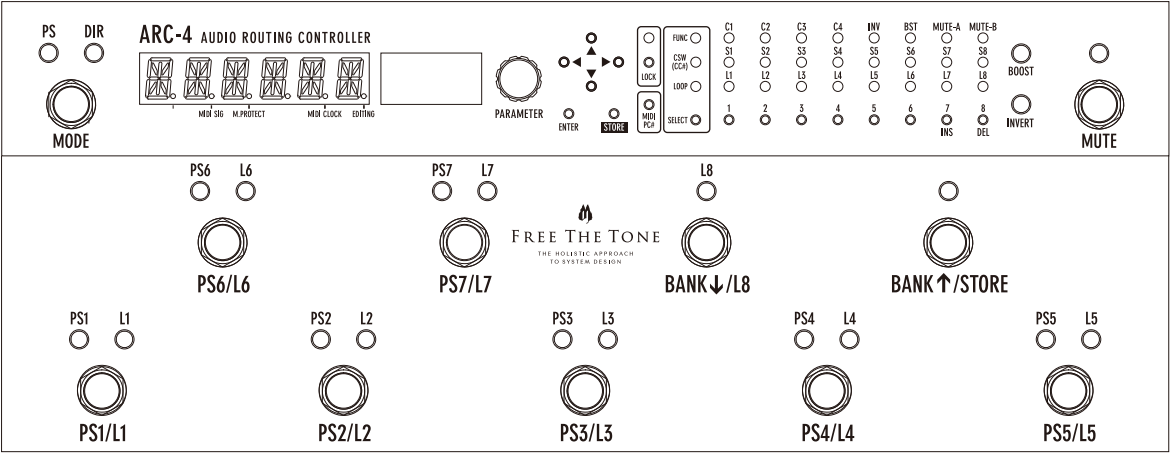


# ARC-4

## AUDIO ROUTING CONTROLLER

### OWNER'S MANUAL



Thank you for choosing a Free The Tone product.

In order to take full advantage of the features and performance it provides, please read this owner’s manual thoroughly, and keep it in a safe place for future reference.

Table of Contents

|                                                                                                                           |    |
|---------------------------------------------------------------------------------------------------------------------------|----|
| Controls and Indicators                                                                                                   | 4  |
| Front Panel                                                                                                               | 4  |
| Rear Panel                                                                                                                | 6  |
| Terminals in Detail                                                                                                       | 8  |
| Block Diagram                                                                                                             | 8  |
| Signal Flow                                                                                                               | 9  |
| How to Store/Recall Effect Loop Combinations or Various Functions (Preset Mode)                                           | 9  |
| Organization of Presets                                                                                                   | 9  |
| Managing Presets                                                                                                          | 10 |
| Switching between Preset and Direct Modes                                                                                 | 10 |
| Storing an Effect Loop Combination                                                                                        | 10 |
| Recalling a Preset                                                                                                        | 10 |
| Storing Phase Invert Function (INVERT) Setting in a Preset                                                                | 10 |
| Storing Boost Function Setting in a Preset                                                                                | 10 |
| Storing Mute (MUTE-A, MUTE-B) Setting in a Preset                                                                         | 10 |
| How to Control External Devices from ARC-4 (Preset Mode)                                                                  | 11 |
| Storing Control Terminal Setting in a Preset                                                                              | 11 |
| Storing MIDI Program Change Number Transmission in a Preset                                                               | 11 |
| Storing MIDI Control Change Number Transmission in a Preset                                                               | 11 |
| Setting MIDI Control Change Number to be Sent (Preset Mode)                                                               | 12 |
| How to Perform Detailed Settings of ARC-4 (Edit Mode)                                                                     | 12 |
| Basic Operation                                                                                                           | 12 |
| PS/L Switch Menus                                                                                                         | 12 |
| Screens Displayed in Edit Menu Operation and Flow of Setup Operation                                                      | 13 |
| PRESET                                                                                                                    | 13 |
| Copying Presets (PS-CP): ON/OFF switch 1                                                                                  | 13 |
| Copying Banks (BK-CP): ON/OFF switch 2                                                                                    | 13 |
| Deleting Presets (PS-DL): ON/OFF switch 3                                                                                 | 13 |
| Deleting Banks (BK-DL): ON/OFF switch 4                                                                                   | 14 |
| Switching Preset Contents (PS-SW): ON/OFF switch 5                                                                        | 14 |
| Switching Bank Contents (BK-SW): ON/OFF switch 6                                                                          | 14 |
| TITLE                                                                                                                     | 14 |
| Setting Preset Titles (PS-TT): ON/OFF switch 1                                                                            | 14 |
| Setting Bank Titles (BK-TT): ON/OFF switch 2                                                                              | 15 |
| Setting MIDI Channel Name (MD-TT): ON/OFF switch 3                                                                        | 15 |
| Setting Duration in which Recalled Preset Title is Being Shown (TT-DP): ON/OFF switch 4                                   | 15 |
| SETLIST                                                                                                                   | 16 |
| Setting Setlists (ST-LS): ON/OFF switch 1                                                                                 | 16 |
| Copying Setlists (SL-CP): ON/OFF switch 2                                                                                 | 16 |
| Deleting Setlists (SL-DL): ON/OFF switch 3                                                                                | 16 |
| Switching Setlist Contents (SL-SW): ON/OFF switch 4                                                                       | 16 |
| MIDI                                                                                                                      | 17 |
| Setting MIDI Receive Channels (RX-CH): ON/OFF switch 1                                                                    | 17 |
| Setting MIDI Transmit Channels (TX-CH): ON/OFF switch 2                                                                   | 17 |
| Setting Expression Pedal's MIDI Transmit Channel (EP-CH): ON/OFF switch 3                                                 | 17 |
| Setting MIDI Control Change Number to Each Function (CC-NM): ON/OFF switch 4                                              | 17 |
| Setting whether to Transmit Each Function's MIDI Control Change Number when Presets are Switched (CC-TX): ON/OFF switch 5 | 18 |

|                                                                                                                                   |    |
|-----------------------------------------------------------------------------------------------------------------------------------|----|
| Showing Bank Title on 12-DIGIT LED DISPLAY/LDP-1 (option) (EX-DP): ON/OFF switch 6                                                | 18 |
| Setting MIDI OUT/THRU Terminal (OT/TH): ON/OFF switch 7                                                                           | 18 |
| Setting MIDI Program Change Number's Start Number: ON/OFF switch 8                                                                | 18 |
| CSW/TAP                                                                                                                           | 19 |
| Setting MIDI Control Change Number to be Sent using CSW Switch (CS-CC): ON/OFF switch 1                                           | 19 |
| Setting Operation Type of CSW Switch (CS-TP): ON/OFF switch 2                                                                     | 19 |
| Setting Footswitch Assigned to TAP Tempo Input (TP-FS): ON/OFF switch 3                                                           | 19 |
| Setting Operation Type of MIDI Clock (MD-CK): ON/OFF switch 4                                                                     | 20 |
| Setting whether to Output TAP Information or Not (TP-DT): ON/OFF switch 5                                                         | 20 |
| SETUP                                                                                                                             | 20 |
| Setting Operation Mode when Two ARC-4 Units are Connected with Dedicated Link Cable (LK-MD): ON/OFF switch 1                      | 20 |
| Setting Initial Operation Mode when ARC-4 is Powered On (OP-MD): ON/OFF switch 2                                                  | 20 |
| Setting Function to be Assigned to EFS-3 Connected to OPTION-1 (EFS-3) Terminal and PS/L Switch on ARC-4 (FS-AS): ON/OFF switch 3 | 21 |
| Setting Operation Type of Control Signal to be Sent (RL-CT): ON/OFF switch 4                                                      | 21 |
| Setting Operation Type of MUTE Switch (MT-MD): ON/OFF switch 5                                                                    | 21 |
| Selecting Mute Circuit to be Activated when MUTE Switch is Turned On (MT-PT): ON/OFF switch 6                                     | 22 |
| Selecting Control Terminal to be Activated Simultaneously when MUTE Switch is Pressed (MT-LK): ON/OFF switch 7                    | 22 |
| Setting Operation when Same PS/L Switch is Pressed (SC-PS): ON/OFF switch 8                                                       | 22 |
| UTILITY                                                                                                                           | 22 |
| Locking Out Setting Changes from Front Panel (AT-LC): ON/OFF switch 1                                                             | 22 |
| Protecting Memory Contents from Change (MM-PR): ON/OFF switch 2                                                                   | 23 |
| Adjusting LED Brightness (LD-BR): ON/OFF switch 3                                                                                 | 23 |
| Setting Expression Pedal's Calibration (EP-CB): ON/OFF switch 4                                                                   | 23 |
| Receiving ARC-4's Data (DP-LD): ON/OFF switch 5                                                                                   | 23 |
| Sending ARC-4's Data (DP-LD): ON/OFF switch 5                                                                                     | 24 |
| Initializing to Factory Reset Status (INITI): ON/OFF switch 6                                                                     | 24 |
| Updating Firmware via MIDI (FW-UD): ON/OFF switch 7                                                                               | 24 |
| Using ARC-4 Efficiently                                                                                                           | 25 |
| Connection Examples                                                                                                               | 25 |
| Basic Connection                                                                                                                  | 25 |
| Using Two Guitars Separately                                                                                                      | 25 |
| Switching between Two Amplifiers                                                                                                  | 25 |
| Switching between Two Amplifiers or Using Two Amplifiers Simultaneously                                                           | 26 |
| Leaving Delay Sound when MUTE Switch is Pressed                                                                                   | 26 |
| Connecting a Fuzz or Wah-wah Pedal                                                                                                | 26 |
| Connecting a Device to be Controlled Directly to Insert Terminal                                                                  | 27 |
| Using L6 and L7 as Stereo Loops                                                                                                   | 27 |
| Further Connection Examples                                                                                                       | 28 |
| Using LB-2 to Add Loops (1)                                                                                                       | 28 |
| Using LB-2 to Add Loops (2)                                                                                                       | 28 |
| Using LB-2 to Add Loops to Amplifier Send/Return                                                                                  | 29 |
| Details of MIDI Data Sent When CSW is Turned On/Off                                                                               | 29 |
| Details of ON/OFF and SELECT Switches                                                                                             | 29 |
| ARC-4's Bank Presets and MIDI Program Change Numbers                                                                              | 30 |
| Main Specifications/Ratings                                                                                                       | 31 |
| Safety Precautions                                                                                                                | 31 |

Handling Precautions

- Never connect or disconnect plugs to/from the input/output terminals on the ARC-4 when the external device that drives speakers is powered. Doing so can cause noises and damage the speakers.
- Avoid applying excessive force to the footswitches, tact switches, and phone jacks on the ARC-4.
- If the unit malfunctions or behaves erratically, cease operation at once and contact your local dealer or Free The Tone directly.

Controls and Indicators

Front Panel

**Display-1**  
Shows various information about the ARC-4's status.

Bank Number

Preset Number

**MIDI SIG dot:** Illuminates when MIDI signals are being sent or received.

**MIDI CLOCK dot:** Illuminates when MIDI clock is being sent.

**M.PROTECT dot:** Illuminates when the Memory Protect function is active.

**EDITING dot:** Illuminates when a preset data has been changed. Turns off when the change is stored or canceled.

**LOCK Switch**  
Hold down this switch for about 3 seconds to lock the switches on the control panel (to prevent unintentional changes). To unlock, hold it again for about 3 seconds. When locked, the LED above the switch illuminates.

**UP/DOWN/LEFT/RIGHT Switches**  
Used in Edit mode to move the cursor and to select a parameter/value. Holding down the switch increases the speed of change.

**ENTER Switch**  
Pressed when confirming your change/operation.

**STORE Switch**  
Pressed when storing your preset setting.

**FUNC LED**  
Press the **SELECT** switch to illuminate this LED when you perform on/off setting of the control terminal, Phase Invert, Boost, or Mute functions. You can change the operation type of CTL1–CTL4 without entering in Edit mode by holding down the C1–C4's ON/OFF switch for about 3 seconds when the **FUNC** LED is illuminating.

Storing Control Terminal Setting in a Preset → p.11  
Storing Phase Invert Function (INVERT) Setting in a Preset → p.10  
Storing Boost Function Setting in a Preset → p.10  
Storing Mute (MUTE-A/MUTE-B) Setting in a Preset → p.10  
Setting Operation Type of Control Signal to be Sent → p.21

**CSW (CC#) LED**  
Press the **SELECT** switch to illuminate this LED when you want to perform on/off setting of the CSW (control switch) to which you have set a MIDI control change number. You can change the detailed settings of CSW1–CSW8 without entering in Edit mode by holding down the S1–S8's ON/OFF switch for about 3 seconds when the **CSW (CC#)** LED is illuminating.

Storing MIDI Control Change Number Transmission in a Preset → p.11  
Setting MIDI Control Change Number to be Sent using CSW Switch → p.19  
Setting Operation Type of CSW Switch → p.19

**LOOP LED**  
Press the **SELECT** switch to illuminate this LED when you want to perform on/off setting of a loop.

Storing Effect Loop Combinations → p.10

**Multi-status LED**  
Shows the on/off status of the FUNCTION, CSW (CC#), and LOOP in a preset.

**MODE Switch**  
Switches between Preset and Direct modes. Hold down this switch for about 3 seconds to enter Edit mode. In Preset mode the **PS** LED illuminates in blue. In Direct mode the **DIR** LED illuminates in red.

Switching between Preset and Direct Modes → p.10  
How to Perform Detailed Settings of ARC-4 (Edit Mode) → p.12

**PS** **DIR**

**MODE**

ARC-4 AUDIO ROUTING CONTROLLER

MIDI SIG M.PROTECT MIDI CLOCK EDITING

PARAMETER

ENTER STORE

LOCK

FUNC CSW (CC#) LOOP MIDI PC# SELECT

|    |    |    |    |     |     |        |        |
|----|----|----|----|-----|-----|--------|--------|
| C1 | C2 | C3 | C4 | INV | BST | MUTE-A | MUTE-B |
| S1 | S2 | S3 | S4 | S5  | S6  | S7     | S8     |
| L1 | L2 | L3 | L4 | L5  | L6  | L7     | L8     |
| 1  | 2  | 3  | 4  | 5   | 6   | 7      | 8      |
|    |    |    |    |     | INS | DEL    |        |

**BOOST** **INVERT** **MUTE**

**MUTE Switch**  
Press this switch to mute the output sound (Factory setting). You can assign various functions to this switch by settings done in Edit mode. When this switch is turned on, the LED above it illuminates.

Selecting Mute Circuit to be Activated when MUTE Switch is Turned On → p.22  
Selecting Control Terminal to be Activated Simultaneously when MUTE Switch is Pressed → p.22

**Display-2**  
Shows various information about the ARC-4's status.

**PARAMETER Encoder**  
Turn this encoder to select a function or change a value.

**ON/OFF Switch**  
Press this switch to select the on or off status of FUNCTION, CSW (CC#), or LOOP.

**SELECT Switch**  
Press this switch to select a function you want to set in a preset. Each press of this switch illuminates the **FUNC**, **CSW (CC#)**, and **LOOP** LEDs by turns.

**BOOST LED**  
Illuminates when the Boost function is active.

**INVERT LED**  
Illuminates when the Phase Invert function is active.

**PS/L Switch**  
Press this switch in Preset mode to switch presets or select a bank. The blue LED of the selected preset illuminates. You can assign various functions to the **PS/L** switch. Press this switch in Direct mode to select a loop. The red LED of the selected loop illuminates.

Setting Function to be Assigned to EFS-3 Connected to OPTION-1 (EFS-3) Terminal and PS/L Switch on ARC-4 → p.21  
Setting Operation when Same PS/L Switch is Pressed → p.22

PS6 L6 PS7 L7 PS1 L1 PS2 L2 PS3 L3 PS4 L4 PS5 L5

PS6/L6 PS7/L7 PS1/L1 PS2/L2 PS3/L3 PS4/L4 PS5/L5

**BANK ↓ /L8** **BANK ↑ /STORE**

**BANK ↓ /L8 Switch**  
Pressing this switch in Preset mode decrements the bank number. The Display flashes if a bank number is changed. But your change is not accepted until you press the **PS/L** switch. Press this switch in Direct mode to turn on/off LOOP 8 (L8). Note that various functions can be assigned to this switch by the setting done in Edit mode.

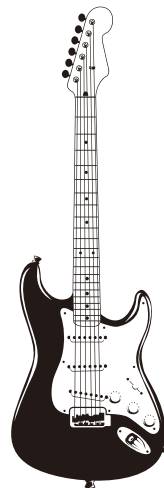
**BANK ↑ /STORE Switch**  
Pressing this switch in Preset mode increments the bank number. The Display flashes if a bank number is changed. But your change is not accepted until you press the **PS/L** switch. Press this switch in Direct mode to store the setting. Note that various functions can be assigned to this switch by the setting done in Edit mode.

# Controls and Indicators

## Rear Panel

### HTS-IN Terminal

Connect your guitar/bass, etc. to this terminal. When a guitar/bass is connected to the **HTS-IN** terminal, the HTS input circuit optimizes its signal and sends it to an effects unit or amplifier connected to the ARC-4.



### HTS-OUT Terminal

Output terminal that sends the signal fed to the **HTS-IN** terminal to another signal line. Bassists can use this terminal as a line to feed a D.I. box. This signal line can be interlocked with the **MUTE** switch.  
Using ARC-4 Efficiently → p.25  
Selecting Mute Circuit to be Activated when MUTE Switch is Turned On → p.22

### IN Terminal

Input terminal located just after the HTS input circuit. Connect your guitar/bass, etc. to this terminal if you do not want to let its signal go through the HTS input circuit.  
Using ARC-4 Efficiently → p.25

### OPTION-1 (EFS-3) Terminal

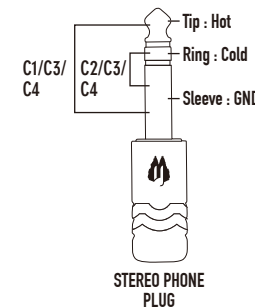
The function assigned to this terminal can be activated from the EXTERNAL FOOTSWITCH/EFS-3 (option) connected to the ARC-4 using the dedicated link cable.  
Terminals in Detail → p.8

### OPTION-2 (PHA-1) Terminal

The function assigned to this terminal can be activated from the PHASE ANALYZER/PHA-1 (option) connected to the ARC-4 using the dedicated link cable.  
Terminals in Detail → p.8

### C1–C4 Terminals

Control terminals that can operate in Latch or Momentary mode and are used to control amplifier channel switching, reverb on/off, etc. External control devices can be connected to these terminals by using standard stereo plugs (TRS).



**C1 terminal:** When C1 is turned on, the tip and ground of the plug are electrically connected.

**C2 terminal:** When C2 is turned on, the ring and ground of the plug are electrically connected.

**C3 terminal:** When C3 is turned on, the tip and ground of the plug are electrically connected but the ring and ground of the plug are disconnected. When C3 is turned off, the tip and ground of the plug are electrically connected.

**C4 terminal:** When C4 is turned on, the tip and ground of the plug are electrically connected but the ring and ground of the plug are disconnected. When C4 is turned off, the tip and ground of the plug are electrically connected.

N.B. If you use a standard monaural plug cable to connect the device, you can use C1, C3, and C4 only.

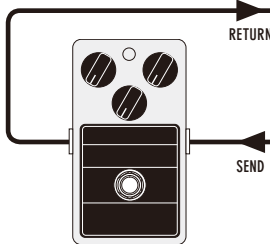
### TUNER Terminal

Used to connect to an external tuner. The signal fed to the **HTS-IN** or **IN** terminal appears at this terminal even when the **MUTE** switch is turned on.



### S-1–5, R-1–5 Terminals (Monaural)

Effect loop terminals. The **S-1–S-5** terminals send signals to the connected effects unit and the **R-1–R-5** terminals receive the signals that went through the effects unit.



### S-INS-R Terminals (Insert Terminal)

The **INS-S** terminal is an output terminal that feeds signals that went through from the effect loops 1 to 5. This output will not be muted even when the **MUTE** switch is turned on.  
The **INS-R** terminal is an input terminal located just before the effect loop 6. The **S-INS-R** terminals are internally connected unless a plug is connected to either of them.

### S-6/A–S-7/A, R-6/A–R-7/A Terminals (Stereo)

Stereo effect loop terminals. Signals are sent from the **S-6/A, S-6/B – S-7/A, and S-7/B** terminals to the connected effects units. Signals that went through the effects unit are received at the **R-6/A, R-6/B – R-7/A, and R-7/B** terminals.  
Terminals in Detail → p.8

### STEREO/PARA Switch

Press this switch to select either Stereo or Parallel Output mode.  
**STEREO Mode** → p.9  
**PARA Mode** → p.9

### OUT-A Terminal

This terminal outputs signals that go through from the effect loops 1 to 7. Signals are always being output irrespective of the **STEREO/PARA** switch selection.  
Terminals in Detail → p.8  
Signal Flow → p.9  
Using ARC-4 Efficiently → p.25

### BOOST-A Knob

Adjusts the boost level at the **OUT-A** terminal when the Boost function is activated.  
Terminals in Detail → p.8

### BOOST-B Knob

Adjusts the boost level at the **OUT-B** terminal when the Boost function is activated and the **STEREO/PARA** switch is set to **STEREO** mode.  
Terminals in Detail → p.8

### OUT-B Terminal

This terminal outputs signals that go through from the effect loops 1 to 7. The flow of output signals changes according to the selection by the **STEREO/PARA** switch.  
Terminals in Detail → p.8  
Signal Flow → p.9  
Using ARC-4 Efficiently → p.25

### E4 (EXP) Terminal

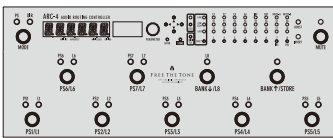
An external footswitch or expression pedal is connected to this terminal.  
Terminals in Detail → p.8

### POWER DC12V IN Receptacle

Used to connect the dedicated AC adapter. When the connected AC adapter is plugged in an AC outlet, the ARC-4 is powered on.  
N.B. Be sure to use the AC adapter supplied with your ARC-4.

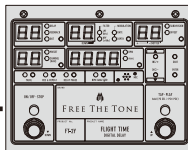
### LINK Terminal

Used to connect to another ARC-4 for linked operation. Use a dedicated link cable RC-5X (option). For more detailed information on this dedicated cable please contact your local dealer or Free The Tone directly.



### MIDI IN and OUT/THRU Terminals

These terminals are used to send/receive MIDI signals to/from the connected external MIDI device. MIDI OUT/THRU setting is switched in Edit mode.  
Setting MIDI OUT/THRU Terminal → p.18





## Terminals in Detail

### OPTION-1 (EFS-3) and OPTION-2 (PHA-1) Terminals

Connect the optional product EXTERNAL FOOTSWITCH/EFS-3 or PHASE ANALYZER/PHA-1 using the optional link cable for the ARC-4. Regarding the functions of the connected optional device please refer to the owner's manual of the product. For more detailed information about the dedicated link cable, contact your local dealer or Free The Tone directly.

#### NOTE

Setting Function to be Assigned to EFS-3 Connected to OPTION-1 (EFS-3) Terminal and PS/L Switch on ARC-4 → p.21  
Using ARC-4 Efficiently → p.25

### OUT-A Terminal

The mute circuit (MUTE-A) is located just before this output terminal. The signal at the **OUT-A** terminal is muted by pressing the **MUTE** switch or turning FUNCTION "MUTE-A" on.

Block Diagram → p.8

Selecting Mute Circuit to be Activated when MUTE Switch is Turned On → p.22

### OUT-B Terminal

The mute circuit (MUTE-B) is located just before this output terminal. The signal at the **OUT-B** terminal is muted by pressing the **MUTE** switch or turning FUNCTION "MUTE-B" on.

Block Diagram → p.8

Selecting Mute Circuit to be Activated when MUTE Switch is Turned On → p.22

### S-6/A-B-S-7/A-B and R-6/A-B-R-7/A-B Terminals (Stereo)

Connect stereo type effects units to these terminals. By using only the A side, these terminals can also be used as usual monaural effect loops.

#### NOTE

Turning on/off of the stereo effect loop is done at the return side. Since the stereo effect loops continue sending the send side signals, you can output delay effects instantly when for example a delay effect unit is connected to one of them.

### IN-8, S-8 (N.C), R-8, & OUT-8 (N.O) Terminals (Separate Loop)

In addition to the usage as an effect loop, the **S-8 (N.C)** terminal can be used as a control terminal (normally closed) for amplifier channel switching, etc. When Loop 8 is turned off, the tip and ground of the jack are electrically connected. The **OUT-8 (N.O)** terminal can be used as a control terminal (normally open): When Loop 8 is turned on, the tip and ground of the jack are electrically connected.

**BOOST-A Knob:** This knob adjusts the output level at the **OUT-A** terminal when the Boost function is activated.

To set to unity gain, turn it fully counterclockwise. The adjustable range is up to about +14 dB.

When the **STEREO/PARA** switch is set to PARA mode, the output signal level of the **OUT-B** terminal is adjusted to the same output level as that of the **OUT-A** terminal.

**BOOST-B Knob:** This knob adjusts the output level at the **OUT-B** terminal when the Boost function is activated and the **STEREO/PARA** switch is set to STEREO mode.

To set to unity gain, turn it fully counterclockwise. The adjustable range is up to about +14 dB.

When the **STEREO/PARA** switch is set to PARA mode, signals are output from the **OUT-B** terminal at the output level adjusted by the **BOOST-A** knob.

### E4 (EXP) Terminal

The function assigned to this terminal can be activated by the connected external footswitch. Use an expression pedal with 10k–25kΩ variable resistance.

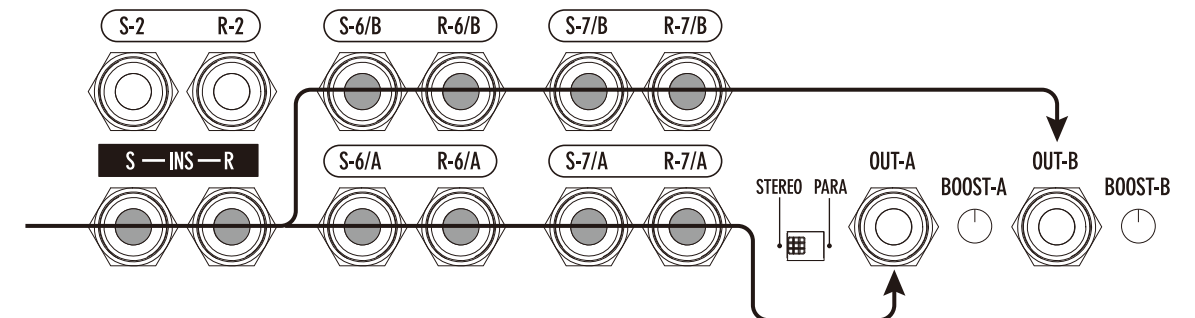
Setting Expression Pedal's Calibration → p.23

## Signal Flow

### STEREO Mode

In this mode, L6 and L7 are used as stereo loops. Signals from the A side loop are fed from the **OUT-A** terminal and signals from the B side loop are fed from the **OUT-B** terminal.

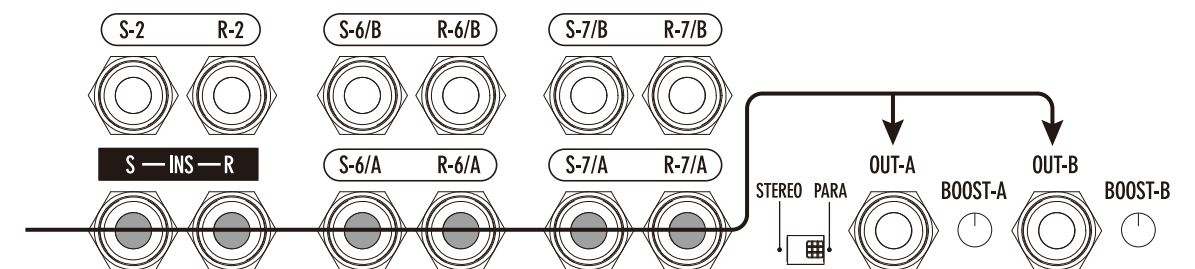
N.B. When the loop of L6 and L7 is turned off, signals same as at the **OUT-A** terminal are output from the **OUT-B** terminal, similarly to PARA mode.



### PARA Mode

In this mode, L6 and L7 are used as monaural loops. Signals are fed from the **OUT-A** and **OUT-B** terminals in parallel.

N.B. When in PARA mode, the send/return terminal of L6 and L7 uses the A side.

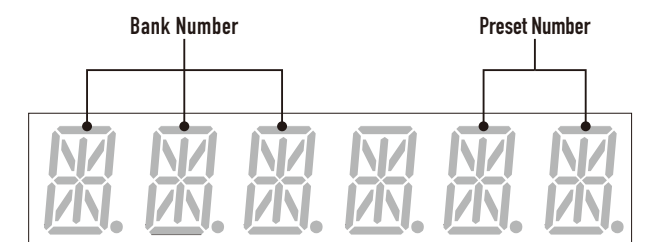
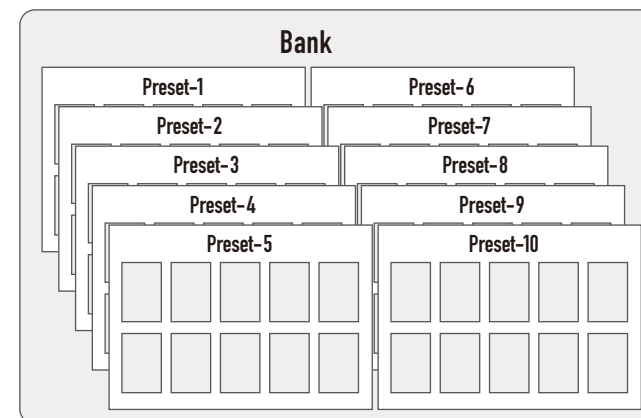


## How to Store/Recall Effect Loop Combinations or Various Functions (Preset Mode)

Preset mode is a mode in which effect loop combinations, settings for MIDI and control signal transmission, etc. can be stored in the ARC-4 and the contents of the memory can be recalled by pressing the **PS/L** switch. In contrast with Preset mode, a mode in which a footswitch can be used to turn on/off each effect loop is called "Direct mode."

### Organization of Presets

What we call a "Preset" is a compilation of effect loop combinations and various control signals settings, etc. The ARC-4 can handle 10 presets as a collection (Bank) and can store 2,000 presets (10 presets x 200 banks).

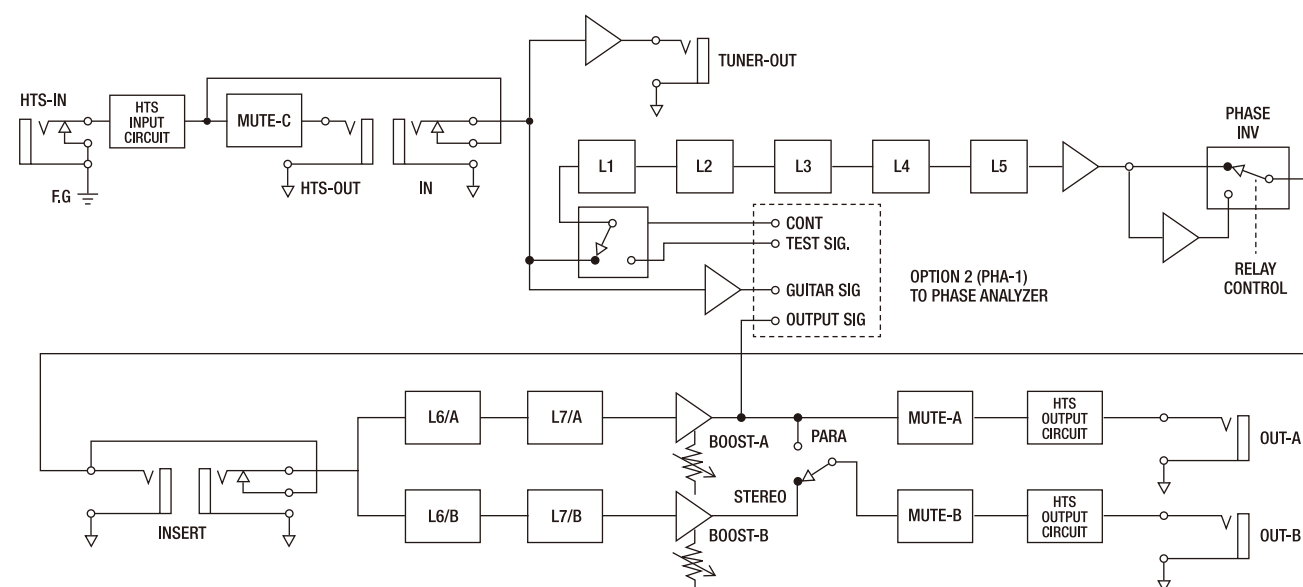


#### NOTE

PS8–PS10 (Preset No.8 to Preset No.10) cannot be recalled from the ARC-4 main unit. By connecting the EXTERNAL FOOTSWITCH/EFS-3 (option) to the **OPTION-1 (EFS-3)** terminal, it becomes possible to recall presets externally.

Setting Function to be Assigned to EFS-3 Connected to OPTION-1 (EFS-3) Terminal and PS/L Switch on ARC-4 → p.21  
Using ARC-4 Efficiently → p.25

## Block Diagram



Managing Presets

In Preset mode the ARC-4 can manage presets in two ways.

Bank Mode

Presets (10 presets) are managed in the order of bank numbers (001–200).

Setlist Mode

This mode is used to manage banks in a sequence in your desired order. For example, the combinations of effects units to be used in a song are compiled in a bank. Then by serializing these banks in accordance to the order in which songs are played in live performance (setlist), presets can be managed on a song-basis. This ARC-4's feature is very useful for live performances.

Switching between Preset and Direct Modes

1. Press the **MODE** switch.
- Each press alternates Preset and Direct modes. In Preset mode the blue **PS** LED illuminates and the **Display-2** shows the bank number or bank title.
- In Direct mode the red **DIR** LED illuminates and the **Display-2** shows **DIRECT ACCESS**.

**NOTE**  
In Preset mode, effect loop's on/off settings, settings for control and MIDI signal transmission, etc. are stored in a preset and the memory contents are recalled by pressing the corresponding **PS/L** switch. In Direct mode pressing a **PS/L** switch can turn on/off the corresponding loop directly.

Storing an Effect Loop Combination

1. Press the **MODE** switch to select Preset mode.
2. Use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the desired bank.
3. Use the **PS/L** switch to select the preset to which you want to store the combination.
4. Press the **SELECT** switch to select “**LOOP**.”
5. Press the **ON/OFF 1–8** switch to select the effect loop you want to store.
6. Press the **STORE** switch to store your selection.

**NOTE**  
Effect loop combinations can be stored even in Direct mode. Select the preset by following the above steps 1–3 and press the **MODE** switch to change to Direct mode. Then press the **PS/L** switch to select the loop you want to store and press the **STORE** switch or **BANK ↑/STORE** switch to store it.

Recalling a Preset

1. Use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the desired bank.
2. Use the **PS/L** switch to select the desired preset.

Storing Phase Invert Function (INVERT) Setting in a Preset

1. Press the **MODE** switch to select Preset mode.
2. Use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the desired bank.
3. Use the **PS/L** switch to select the preset to which you want to store the setting.
4. Press the **SELECT** switch to select “**FUNC**” and to turn on the LED.
5. Press the **ON/OFF 5** switch to activate the Phase Invert function (INVERT).
6. Press the **STORE** switch to store the setting.

**NOTE**  
Some effects units invert (reverse) the phase causing their sound to be buried in band mix. In such a case turn on this INVERT function to correct the phase of the signal (to be in phase) before outputting. However intentionally inverting the phase can sometimes enhance the sound. So please try this function in various situations. Signal phase can be confirmed with the PHASE ANALYZER/PHA-1 (option).

Storing Boost Function Setting in a Preset

1. Press the **MODE** switch to select Preset mode.
2. Use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the desired bank.
3. Use the **PS/L** switch to select the desired preset.
4. Press the **SELECT** switch to select “**FUNC**” and to turn on the LED.
5. Press the **ON/OFF 6** switch to activate the Boost function.
6. Press the **STORE** switch to store the setting.

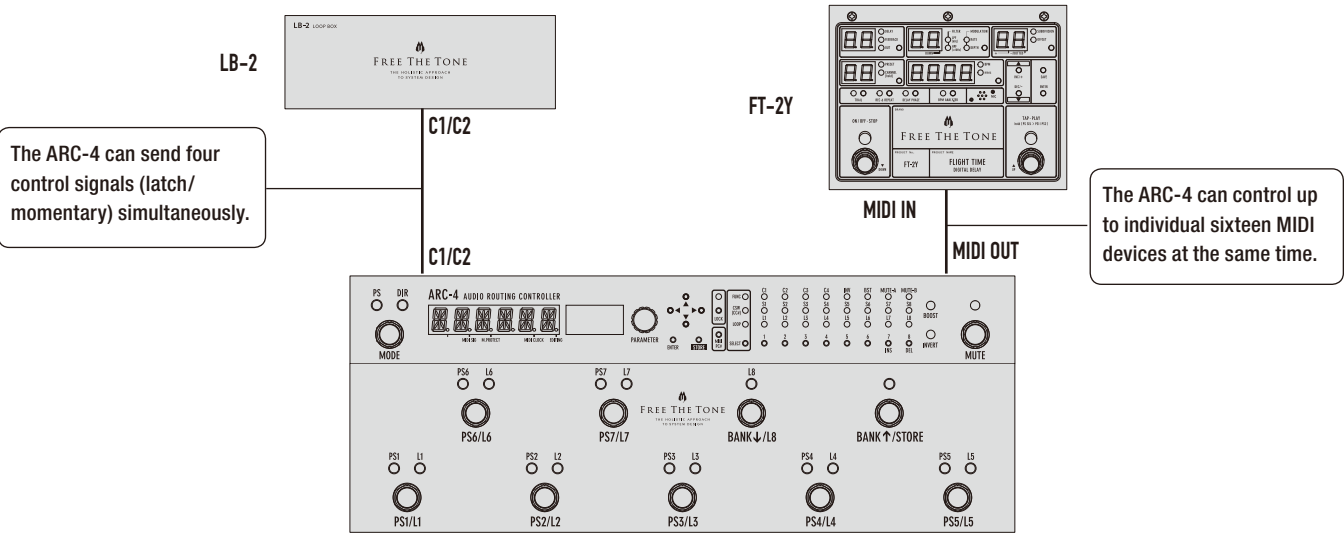
**NOTE**  
The boost amount of the signals at the **OUT-A** and **OUT-B** terminals can be adjusted respectively by the **BOOST-A** and **BOOST-B** knobs on the rear panel.

Storing Mute (MUTE-A, MUTE-B) Setting in a Preset

1. Press the **MODE** switch to select Preset mode.
2. Use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the desired bank.
3. Use the **PS/L** switch to select the desired preset.
4. Press the **SELECT** switch to select “**FUNC**” and to turn on the LED.
5. Press the **ON/OFF 7** or **8** switch to select the output terminal you want to mute.
6. Press the **STORE** switch to store the setting.

How to Control External Devices from ARC-4 (Preset Mode)

The ARC-4 can send control and MIDI signals to control a connected external device.



Storing Control Terminal Setting in a Preset

1. Press the **MODE** switch to select Preset mode.
2. Use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the desired bank.
3. Use the **PS/L** switch to select the desired preset.
4. Press the **SELECT** switch to select “**FUNC**” and to turn on the LED.
5. Press the **ON/OFF 1–4** switch to select the control terminal whose setting should be stored.
6. Press the **STORE** switch to store the setting.

**NOTE**  
Regarding the specifications of the connecting cable (monaural or stereo), please refer to the connected device's spec sheet.  
**Setting Operation Type of Control Signal to be Sent → p.21**

Storing MIDI Program Change Number Transmission in a Preset

After connecting the ARC-4 to a MIDI device, preset memories of the connected device can be recalled. The ARC-4 can send sixteen MIDI program change numbers simultaneously by using the MIDI channels CH1–CH16.

1. Press the **MODE** switch to select Preset mode.
2. Use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the desired bank.
3. Use the **PS/L** switch to select the desired preset.
4. Press the **MIDI PC#** switch.
5. Press the **UP/DOWN** switch to select the desired item.
6. Turn the **PARAMETER** encoder to set the parameter.
7. Press the **STORE** switch to store the setting.
8. By pressing the **MIDI PC#** switch, the previous preset display returns.

- Parameter 1: MIDI channel (Shown as “**CH**” on **Display-1**) 01 to 16  
Parameter 2: MIDI program change number (Shown as “**PC**” on **Display-1**) OFF, 001 to 128  
Parameter 3: BANK select (Shown as “**MSB**” on **Display-1**) OFF, 000 to 127  
Parameter 4: BANK select (Shown as “**LSB**” on **Display-1**) OFF, 000 to 127

**NOTE**  
**MSB/LSB:** This is a message for Bank Select operation. If it is not necessary to specify, set both MSB and LSB to “**OFF**” (initial value). The MIDI channel (CH) must be the same as that of the connected MIDI device.

Storing MIDI Control Change Number Transmission in a Preset

After connecting the ARC-4 to a MIDI device, the connected device's parameters can be controlled.

1. Press the **MODE** switch to select Preset mode.
2. Use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the desired bank.
3. Use the **PS/L** switch to select the desired preset.
4. Press the **SELECT** switch to select “**CSW(CC#)**” and to turn on the LED.
5. Press the **ON/OFF** switch 1–8 to select the “**CSW** (control switch)” to be used.
6. Press the **STORE** switch to store the selection.

**NOTE**  
The MIDI control change number assigned to a CSW (control switch) can be set in Edit mode or Preset mode.  
**Setting MIDI Control Change Number to be Sent → p.12**  
**Details of MIDI Data Sent When CSW is Turned On/Off → p.29**

### Setting MIDI Control Change Number to be Sent (Preset Mode)

1. Press the **MODE** switch to select Preset mode.
2. Use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the desired target bank.
3. Use the **PS/L** switch to select the desired target preset.
4. Press the **SELECT** switch to select “**CSW(#CC)**” and to turn on the LED.
5. Press and hold down the **ON/OFF 1–8** switch for about 3 seconds to select “**CSW** (control switch)” to be used.
6. Press the **UP** or **DOWN** switch to select the item you want to setup.
7. Turn the **PARAMETER** encoder to set the parameter.
8. Press the **ENTER** switch to return to Preset mode.

Parameter 1: CSW switches (shown as **CSW** on **Display-1**) 1 to 8

Parameter 2: MIDI control change numbers (shown as **CC** on **Display-1**) 001 to 128

Parameter 3: MIDI channels (shown as **CH** on **Display-1**) 1 to 16

Parameter 4: (operation method) LATCH, MOMENTARY1 (MOM1), MOMENTARY2 (MOM2), ONSEND, VALUE

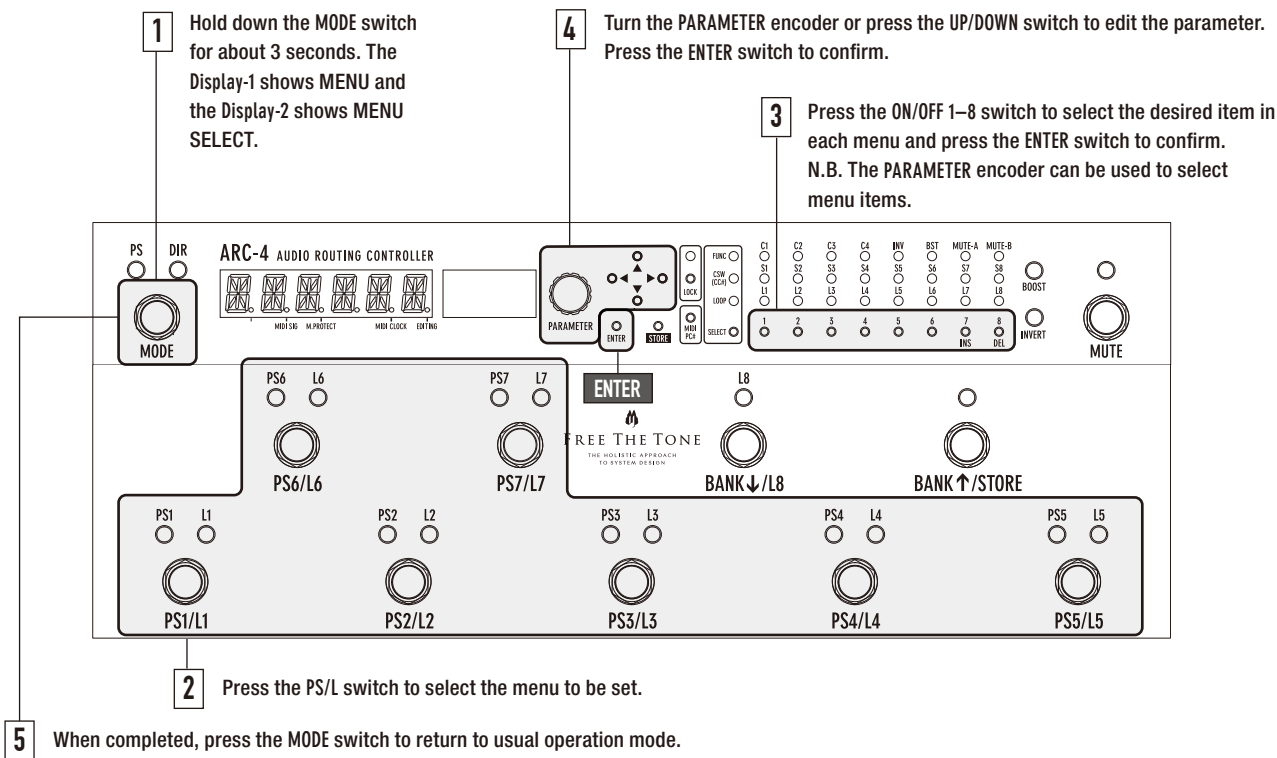
Parameter 5: (only when VALUE is selected in Parameter 4) ON (000 to 127), OFF (NON, 000 to 127)

#### NOTE

The MIDI channel (CH) must be the same as that of the connected MIDI device. The **Display-2** shows all of the information at once.

## How to Perform Detailed Settings of ARC-4 (Edit Mode)

Detailed settings of the ARC-4 are done in Edit mode.



### Basic Operation

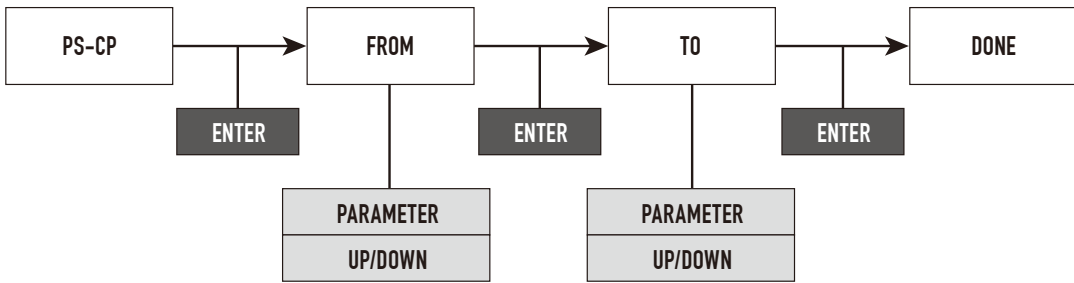
1. Hold down the **MODE** switch for about 3 seconds. The **Display-1** shows “**MENU**” and the **Display-2** shows “**MENU SELECT**.”
2. Press the **PS/L** switch to select the menu to be set.
3. Press the **ON/OFF 1–8** switch to select the desired item in each menu and press the **ENTER** switch to confirm.
4. Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to edit the parameter.
5. When completed, press the **MODE** switch to rerutn to usual operation mode.

### PS/L Switch Menus

- PS1/L1: PRESET (Copying/Deleting of each preset and bank)  
PS2/L2: TITLE (Naming presets, banks, etc.)  
PS3/L3: SET LIST (Setting of setlists)  
PS4/L4: MIDI (Setting of MIDI)  
PS5/L5: CSW/TAP (Setting of CSW transmission and TAP tempo input)  
PS6/L6: SET UP (Basic settings of ARC-4's operations)  
PS7/L7: UTILITY (Useful functions of ARC-4)

### Screens Displayed in Edit Menu Operation and Flow of Setup Operation

< When Copying a Preset >

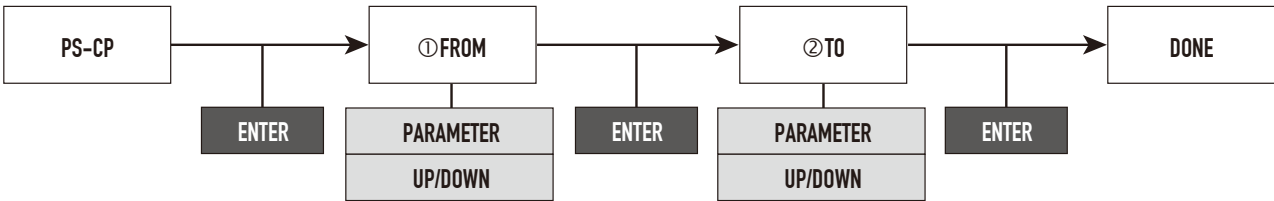


NOTE: In Edit mode, changes are accepted when the **ENTER** switch on the control panel is pressed. It is not necessary to press the **STORE** switch.

### PRESET: PS1/L1 switch

Presets and banks set in Preset mode are copied or deleted in these configuration modes.

### Copying Presets (PS-CP): ON/OFF switch 1



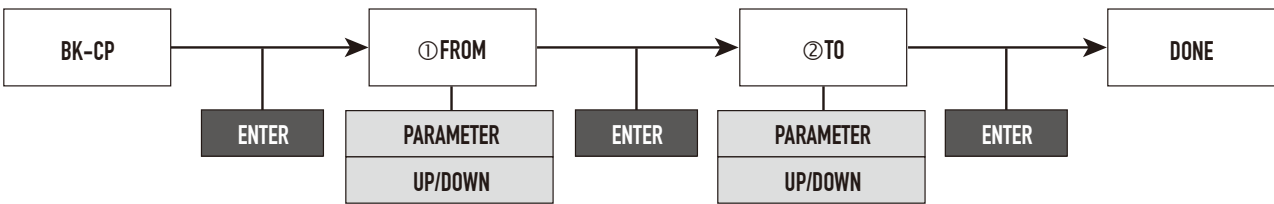
① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the source preset.

② Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the destination preset.

N.B. The destination preset will be overwritten.

Parameter: 001-01 to 200-10 (default = 001-01)

### Copying Banks (BK-CP): ON/OFF switch 2



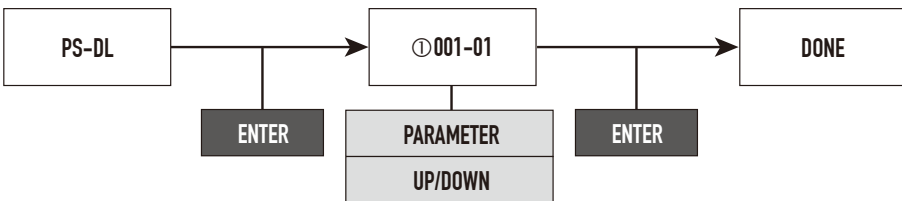
① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the source bank.

② Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the desitination bank.

N.B. The presets in the destination bank will be overwritten.

Parameter: BNK001 to BNK200 (default = BNK001)

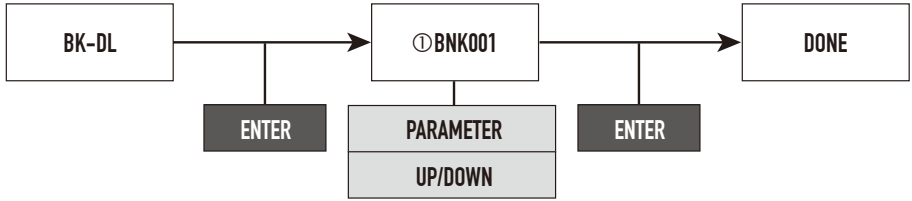
### Deleting Presets (PS-DL): ON/OFF switch 3



① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the preset to be deleted.

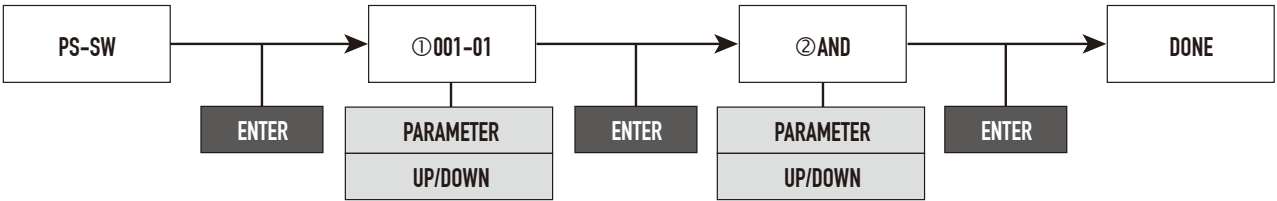
Parameter: 001-01 to 200-10 (default = 001-01)

**Deleting Banks (BK-DL): ON/OFF switch 4**



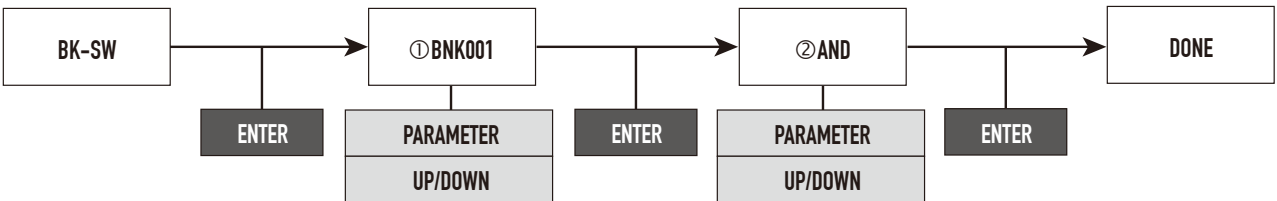
- ① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the bank to be deleted.  
Parameter: BNK001 to BNK200 (default = BNK001)

**Switching Preset Contents (PS-SW): ON/OFF switch 5**



- ① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the source preset.  
② Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the destination preset.  
Parameter: 001-01 to 200-10 (default = 001-01)

**Switching Bank Contents (BK-SW): ON/OFF switch 6**

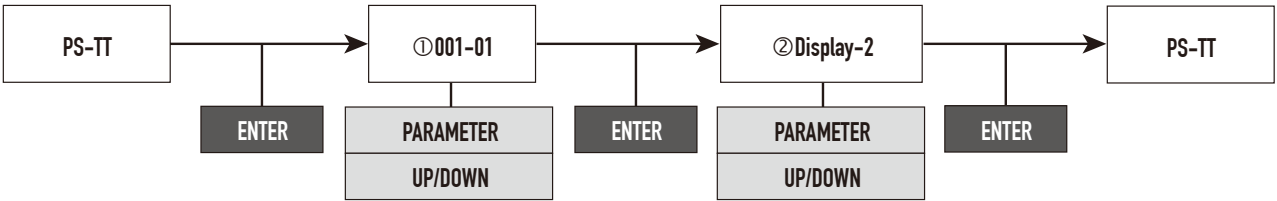


- ① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the source bank.  
② Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the destination bank.  
Parameter: BNK001 to BNK200 (default = BNK001)

**TITLE: PS2/L2 switch**

Names for presets, banks, etc. are set in these configuration modes.  
N.B. Pressing the **UP/DOWN** switch when entering lables changes character types to be entered.

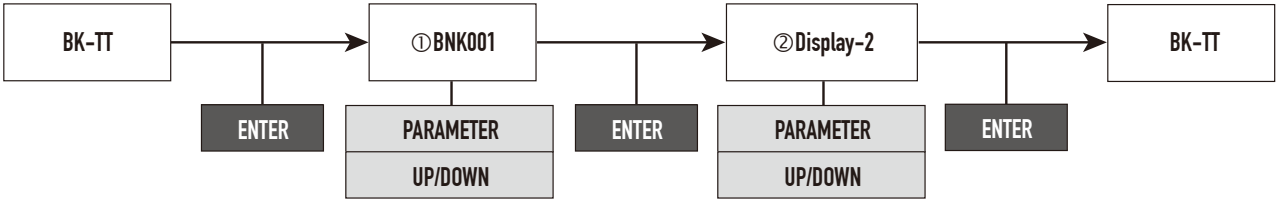
**Setting Preset Titles (PS-TT): ON/OFF switch 1**



- ① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the desired preset.  
② Press the **ENTER** switch. The **Display-2** shows the Title Edit screen. Use the **PARAMETER** encoder and the **UP/DOWN** switch to enter characters.  
Parameter: Uppercase and lowercase letters, numerals, symbols

**NOTE**  
Press the **LEFT/RIGHT** switch to enter the next character or correct the previous character. Press the **ON/OFF 7** switch to enter a space, and press the **ON/OFF 8** switch to delete a character.  
The entered title is shown in the **Display-1** when the preset is recalled.  
**Setting Duration in which Recalled Preset Title is Being Shown** → p.15

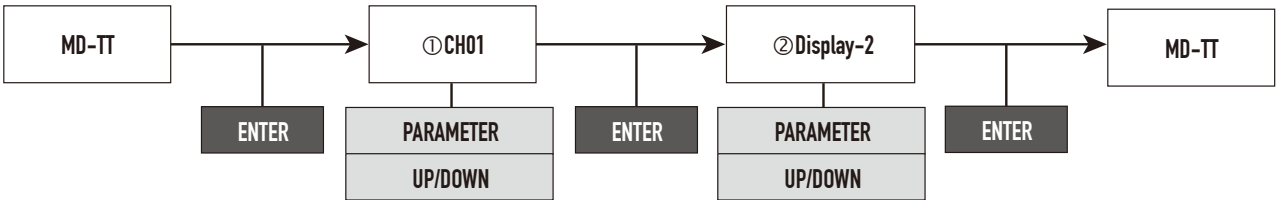
**Setting Bank Titles (BK-TT): ON/OFF switch 2**



- ① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the preset whose name should be set.  
② Press the **ENTER** switch. The **Display-2** shows the Title Edit screen. Use the **PARAMETER** encoder and the **UP/DOWN** switch to enter characters.  
Parameter: Uppercase and lowercase letters, numerals, symbols

**NOTE**  
Press the **LEFT/RIGHT** switch to enter the next character or correct the previous character. Press the **ON/OFF 7** switch to enter a space, and press the **ON/OFF 8** switch to delete a character.  
The entered title is shown in the **Display-2** when the preset is recalled.

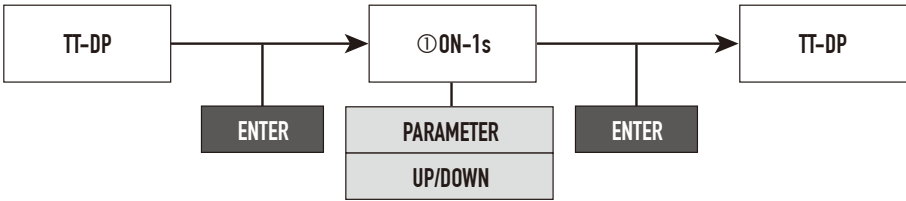
**Setting MIDI Channel Name (MD-TT): ON/OFF switch 3**



- ① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the MIDI channel whose name should be set.  
② Press the **ENTER** switch. The **Display-2** shows the Title Edit screen. Use the **PARAMETER** encoder and the **UP/DOWN** switch to enter characters.  
Parameter: Uppercase and lowercase letters, numerals, symbols

**NOTE**  
Press the **LEFT/RIGHT** switch to enter the next character or correct the previous character. Press the **ON/OFF 7** switch to enter a space, and press the **ON/OFF 8** switch to delete a character.  
The entered title is shown in the **Display-2** when the setting screen for MIDI program or control change number is displayed. Since MIDI channels can be managed via names of the connected device, etc., this function is very useful when controlling multiple MIDI devices.

**Setting Duration in which Recalled Preset Title is Being Shown (TT-DP): ON/OFF switch 4**



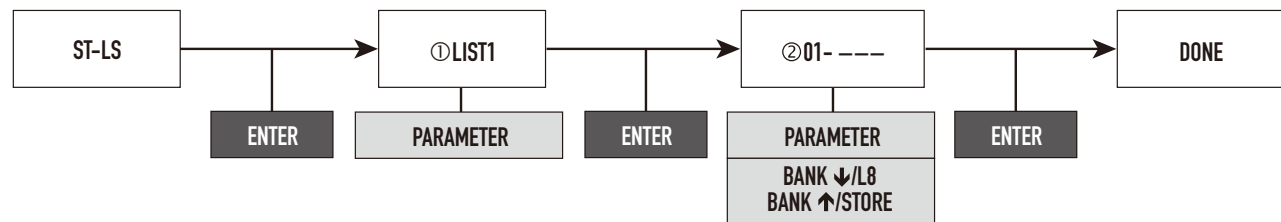
- ① Turn the **PARAMETER** encoder to set the desired time (duration).  
Parameter 1: OFF, ON-05s, ON-1s, ON-2s, ON-3s (default = ON-1s)

**NOTE**  
Display of Parameters: ON-0.5s = 0.5 seconds, ON-1s = 1 second, ON-2s = 2 seconds, ON-3s = 3 second, OFF = not shown



## SETLIST: PS3/L3 switch

### Setting Setlists (ST-LS): ON/OFF switch 1

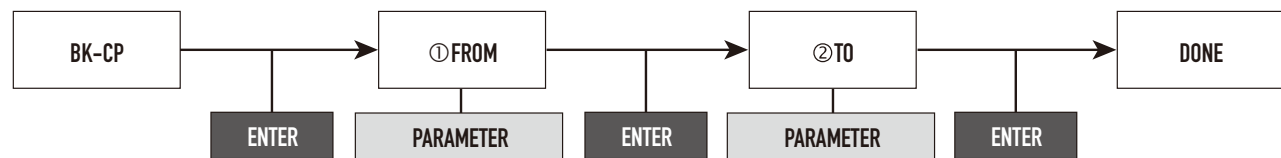


- ① Turn the **PARAMETER** encoder to select the desired setlist number (SET1–SET9).
- ② Press the **ENTER** switch. The **Display-2** shows the Setlist Edit screen.
- ③ Use the **PARAMETER** encoder to select the order (01–50) of the song you want to set and use the **BANK ↓/L8** or **BANK ↑/STORE** switch to select the bank (001–200) to be used.
- Parameter 1: LIST1 to LIST9
- Parameter 2: 01 to 50, 001 to 200

#### NOTE

To operate in set list mode, refer to P.20 "Setting Initial Operation Mode when ARC-4 is Powered On (OP-MD): ON/OFF switch 2".

### Copying Setlists (SL-CP): ON/OFF switch 2

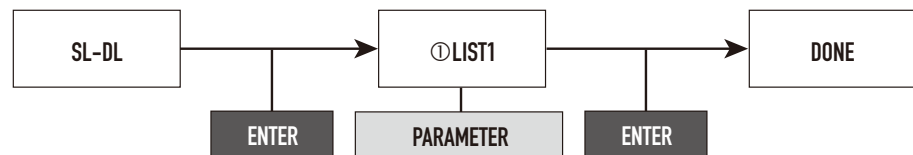


- ① Turn the **PARAMETER** encoder to select the copy source setlist.
- ② Turn the **PARAMETER** encoder to select the copy destination setlist.
- Parameter: LIST1 to LIST9 (default = LIST1)

#### NOTE

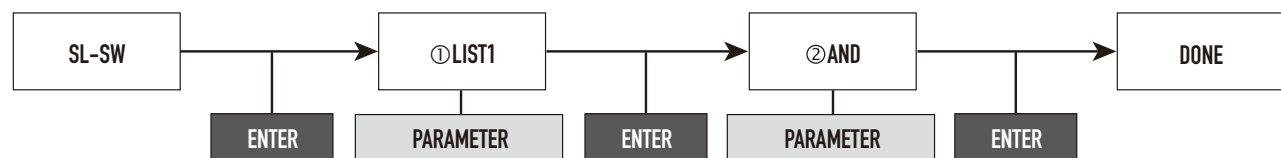
The destination setlists will be overwritten.

### Deleting Setlists (SL-DL): ON/OFF switch 3



- ① Turn the **PARAMETER** encoder to select the setlist to be deleted.
- Parameter: LIST1 to LIST9 (default = LIST1)

### Switching Setlist Contents (SL-SW): ON/OFF switch 4

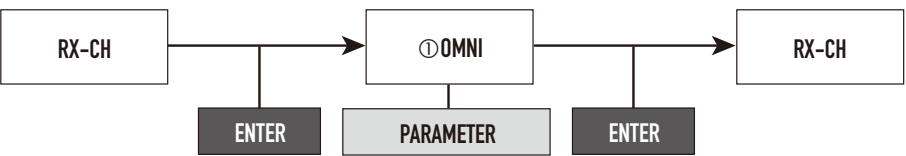


- ① Turn the **PARAMETER** encoder to select the source setlist.
- ② Turn the **PARAMETER** encoder to select the destination setlist.
- Parameter: LIST1 to LIST9 (default = LIST1)

## MIDI: PS4/L4 switch

Detailed MIDI settings are done in these configuration modes.

### Setting MIDI Receive Channels (RX-CH): ON/OFF switch 1

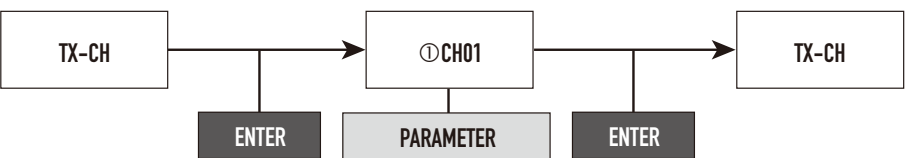


- ① Turn the **PARAMETER** encoder to select the MIDI receive channel. This sets the MIDI channel (CH1–16, OMNI, OFF) received by the ARC-4.
- Parameter: OMNI, CH01 to CH16, OFF (default = OMNI)

#### NOTE

In OMNI mode, all of the MIDI channels 1–16 are received.

### Setting MIDI Transmit Channels (TX-CH): ON/OFF switch 2

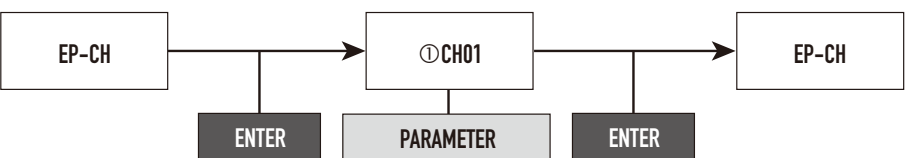


- ① Turn the **PARAMETER** encoder to select the desired MIDI transmit channel.
- Parameter: CH01 to CH16, OFF (default = CH01)

#### NOTE

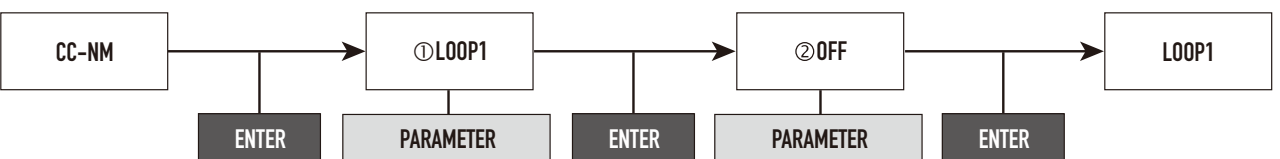
(CC-NM): This sets the MIDI channel used to send the MIDI control change number set by the ON/OFF switch 4.

### Setting Expression Pedal's MIDI Transmit Channel (EP-CH): ON/OFF switch 3



- ① Turn the **PARAMETER** encoder to select the desired MIDI transmit channel.
- Parameter: CH01 to CH16, OFF (default = CH01)

### Setting MIDI Control Change Number to Each Function (CC-NM): ON/OFF switch 4



- ① Turn the **PARAMETER** encoder to select the function to which you want to set the MIDI control change number.
- ② Turn the **PARAMETER** encoder to set MIDI control change number.
- Parameter 1: LOOP1 to LOOP8, MUTE, MODE, EXP PEDAL [EXPPDL], CTL1 to CTL4, INVERT, BOOST, MUTE-A, MUTE-B
- Parameter 2: 000 to 120, OFF
- Items Initially Set: LOOP1–LOOP8: OFF, EXP PEDAL [EXPPDL]: 112, CTL1: 113, CTL2: 114, CTL3: 115, CTL4: 116, INVERT: 117, BOOST: 118, MUTE-A: 119, MUTE-B: 120

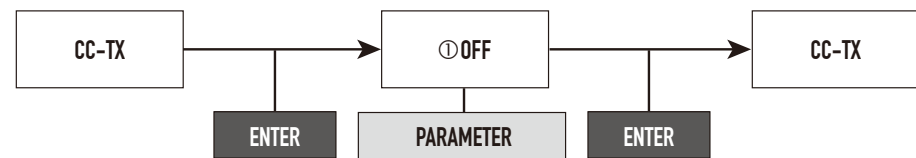
#### NOTE

When receiving MIDI control change numbers: In both Direct and Preset modes, the assigned function is activated. (except for expression pedal)

When transmitting MIDI control change numbers: MIDI CC# assigned when in Direct mode is sent. Whether to send MIDI CC# assigned when in Preset mode or not is set by the **(CC-TX): ON/OFF switch 5**. (If MIDI Tx is turned off by the **(TX-CH): ON/OFF switch 2**, then MIDI data is not sent even if each function is turned on.)

With this setting, an external MIDI controller can be used for detailed control of the ARC-4.

**Setting whether to Transmit Each Function's MIDI Control Change Number when Presets are Switched (CC-TX): ON/OFF switch 5**

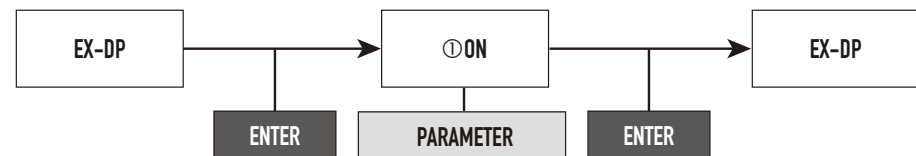


① Turn the **PARAMETER** encoder to select ON or OFF.  
Parameter: ON, OFF (default = OFF)

**NOTE**

In addition to the MIDI control change number set by CSW, the MIDI control change number assigned to each function by the **(CC-NM): ON/OFF switch 4** can be sent if this function is turned on.

**Showing Bank Title on 12-DIGIT LED DISPLAY/LDP-1 (option) (EX-DP): ON/OFF switch 6**

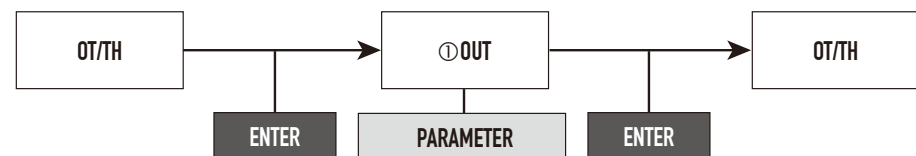


① Turn the **PARAMETER** encoder to select ON or OFF.  
Parameter: ON, OFF (default = ON)

**NOTE**

Turn on this setting when you connect the 12-DIGIT LED DISPLAY/LDP-1 (option) to the ARC-4 via MIDI and show the titles of banks or presets you've set.

**Setting MIDI OUT/THRU Terminal (OT/TH): ON/OFF switch 7**

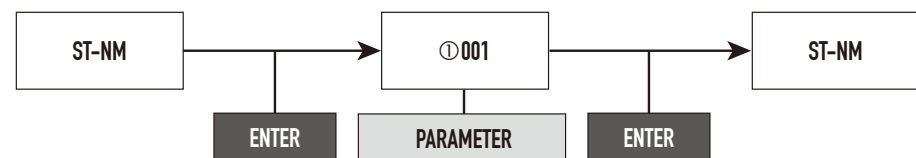


① Turn the **PARAMETER** encoder to select the terminal's function.  
Parameter: OUT, THRU (default = OUT)

**NOTE**

When set to THRU, MIDI signals received at the **MIDI IN** terminal are output intact. The MIDI signal stored in each preset will not be output by pressing the **PS/L** switch on the ARC-4.

**Setting MIDI Program Change Number's Start Number: ON/OFF switch 8**



① Turn the **PARAMETER** encoder to select the desired start number.  
Parameter: 000 (000 to 127), 001 (001 to 128) (default = 001)

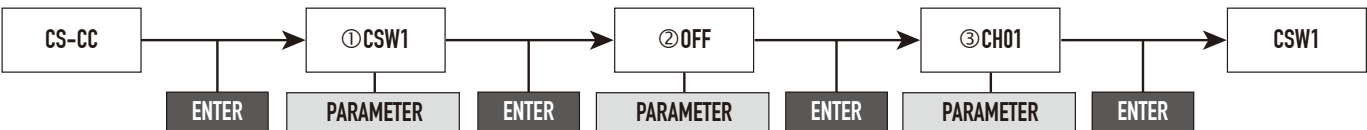
**NOTE**

The start number of MIDI program change number differs according to MIDI devices. The ARC-4 can set the start number in accordance with the connected device.

**CSW/TAP: PS5/L5 switch**

Detailed setting of CSW (CC#) and TAP tempo information setting is done in these configuration modes.

**Setting MIDI Control Change Number to be Sent using CSW Switch (CS-CC): ON/OFF switch 1**

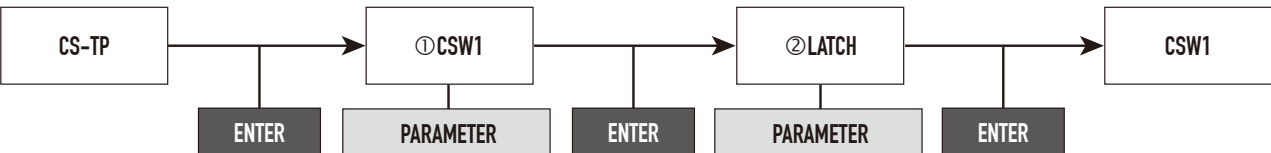


- ① Turn the **PARAMETER** encoder to select the **CSW** switch to which you want to enter the data.  
② Turn the **PARAMETER** encoder to select the MIDI control change number to be sent.  
③ Turn the **PARAMETER** encoder to select the MIDI channel to which the MIDI control change number will be sent.  
Parameter 1: CSW1 to CSW8  
Parameter 2: 000 to 120, OFF (default = OFF)  
Parameter 3: CH01 to CH16 (default = CH01)

**NOTE**

The MIDI channel when sending a MIDI control change number can be selected from CH01–16. The ARC-4 can send up to eight MIDI control change numbers simultaneously.

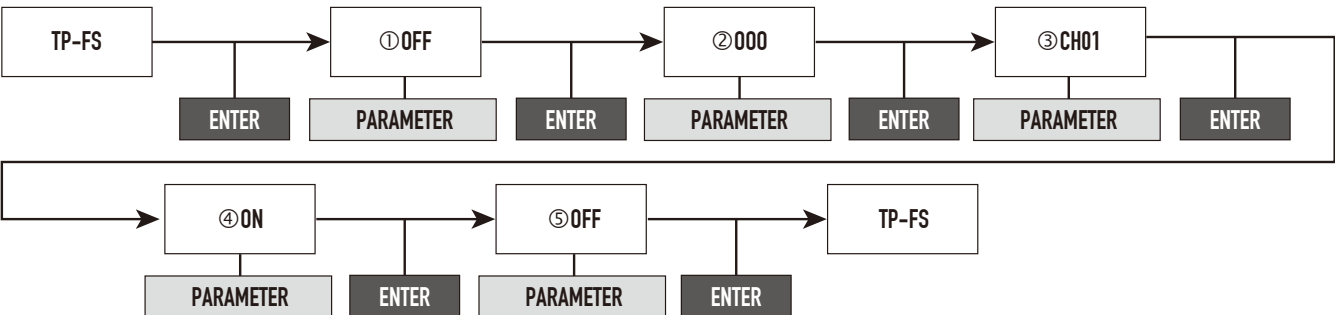
**Setting Operation Type of CSW Switch (CS-TP): ON/OFF switch 2**



- ① Turn the **PARAMETER** encoder to select the **CSW** switch whose operation type you want to set.  
② Turn the **PARAMETER** encoder to select the desired operation type.
  - This defines the operation type of the CSW set by the (CS-CC) item.
  - The operation type is selected from LATCH, MOMENTARY1, MOMENTARY2, ON SEND, and VALUE.
  - If VALUE is selected, set the value sent when VALUE CSW (CC#) is turned on and off. If **"NON"** is selected for the OFF setting, nothing is sent in OFF status.Parameter 1: CSW1 to CSW8  
Parameter 2: LATCH, MOMENTARY1 [MOM1], MOMENTARY2 [MOM2], ON SEND, VALUE (default = LATCH)

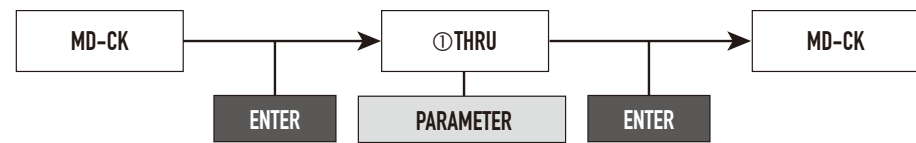
**Details of MIDI Data Sent When CSW is Turned On/Off → p.29**

**Setting Footswitch Assigned to TAP Tempo Input (TP-FS): ON/OFF switch 3**



- ① Turn the **PARAMETER** encoder to select the footswitch to be used.  
② Turn the **PARAMETER** encoder to set the MIDI control change number to be transmitted.  
③ Turn the **PARAMETER** encoder to set the MIDI transmit channel.  
④ Turn the **PARAMETER** encoder to set the value for the ON status.  
⑤ Turn the **PARAMETER** encoder to set the value for the OFF status.  
Parameter 1: OFF, MODE, MUTE, PS1 to PS7, E1 to E4 (default = OFF)  
Parameter 2: 000 to 120 (default = 000)  
Parameter 3: CH01 to CH16  
Parameter 4 (value for ON status): 000 to 127 (default = 127)  
Parameter 5 (value for OFF status): NONE, 000 to 127 (default = NONE)

### Setting Operation Type of MIDI Clock (MD-CK): ON/OFF switch 4



① Turn the **PARAMETER** encoder to select the desired operation type.

Parameter 1: THRU, INTERNAL [INT], OFF (default = THRU)

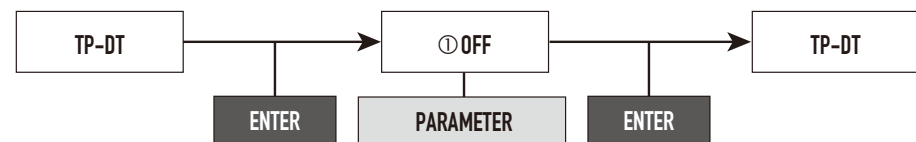
#### NOTE

**THRU:** The MIDI clock received at the **MIDI IN** terminal is sent intact to the device connected to the **MIDI OUT/THRU** terminal. The **MIDI CLOCK** dot in the **Display-1** will not flash and the **Display-2** will not show “BPM.”

**INTERNAL [INT]:** BPM set in the ARC-4 is fed to the device connected to the **MIDI OUT/THRU** terminal as a MIDI clock. The **MIDI CLOCK** dot in the **Display-1** flashes in sync with BPM, the **Display-2** shows “BPM.”

**OFF:** When a MIDI clock is received at the **MIDI IN** terminal, it is not sent to the device connected to the **MIDI OUT/THRU** terminal.

### Setting whether to Output TAP Information or Not (TP-DT): ON/OFF switch 5



① Turn the **PARAMETER** encoder to select ON or OFF.

Parameter 1: ON, OFF (default = OFF)

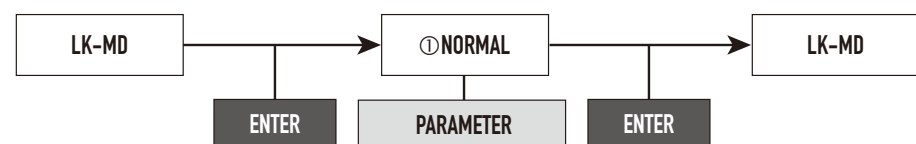
#### NOTE

This sets whether to send the TAP information when the footswitch assigned to the TAP tempo input function is pressed. Turn on this function when TAP tempo information is sent to a device not supporting MIDI clock.

## SETUP: PS6/L6 Switch

Basic settings of the ARC-4 are done in these configuration modes.

### Setting Operation Mode when Two ARC-4 Units are Connected with Dedicated Link Cable (LK-MD): ON/OFF switch 1



① Turn the **PARAMETER** encoder to select the desired operation mode.

- In NORMAL mode, the preset numbers on the two units always synchronize together. But preset contents are configured separately.
- In MASTER/SLAVE mode, the settings and presets on the MASTER unit are prioritized and executed. The SLAVE unit serves as a remote controller.

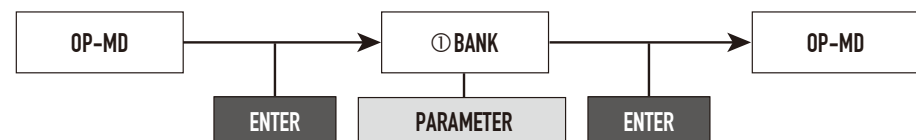
N.B. If set to MASTER/SLAVE mode, the device you want to turn on/off by the effect loop or the device you want to control via MIDI must be connect to the MASTER side.

Parameter 1: NORMAL, MASTER, SLAVE (default = NORMAL)

#### NOTE

For more about the link cable dedicated for the ARC-4, please contact your local dealer or Free The Tone directly.

### Setting Initial Operation Mode when ARC-4 is Powered On (OP-MD): ON/OFF switch 2



① Turn the **PARAMETER** encoder to select the desired operation mode.

Parameter 1: BANK, DIRECT, LIST1 to LIST9 (default = BANK)

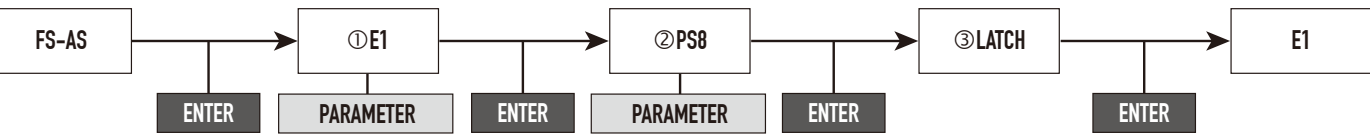
#### NOTE

**BANK:** Factory shipping status. The ARC-4 starts in Preset mode. Banks are organized in the order of bank numbers and recalled by using these numbers.

**DIRECT:** The ARC-4 starts in Direct mode.

**LIST1–9:** The ARC-4 starts in Preset mode. Banks are maintained and recalled by the order set by the setlists.

### Setting Function to be Assigned to EFS-3 Connected to OPTION-1 (EFS-3) Terminal and PS/L Switch on ARC-4 (FS-AS): ON/OFF switch 3



① Turn the **PARAMETER** encoder to select the desired footswitch.

② Turn the **PARAMETER** encoder to select the desired function.

N.B. The operation type is selected from LATCH and HOLD.

Parameter 1: E1 to E4, PS1 to PS7

Parameter 2: LOOP1 to 8, CTL1 to 4, INVERT, BOOST, MUTE- A, MUTE- B, CSW1 to 8

Parameter 3: LATCH, HOLD

N.B. Default assignments E1: PS8, E2: PS9, E3: PS10, E4: EXP PEDAL [PEDL], and PS1 to PS7 cannot be assigned to another switch.

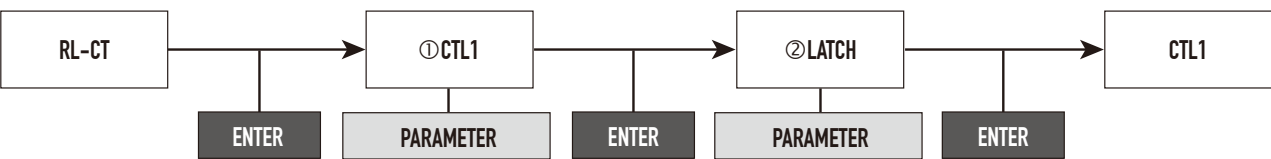
#### NOTE

**LATCH:** Pressing the switch once turns on its function and pressing it again turns it off.

**HOLD:** The function of the switch is activated as long as it is held pressed.

N.B. When PS1–10 is selected, there is no option other than LATCH. It is not possible change the parameter.

### Setting Operation Type of Control Signal to be Sent (RL-CT): ON/OFF switch 4



① Turn the **PARAMETER** encoder to select the desired control terminal.

② Turn the **PARAMETER** encoder to select the desired operation type.

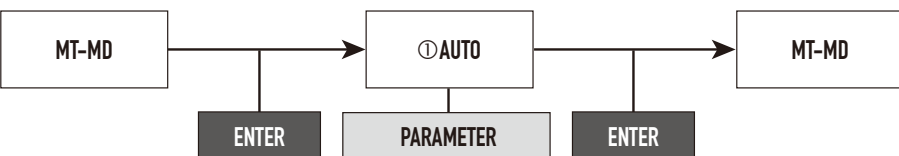
Parameter 1: CTL1 to CTL4

Parameter 2: LATCH, MOMENTARY1 [MOM1], MOMENTARY2 [MOM2] (default = LATCH)

MOMENTARY1 (MOM1): The contact closes for 100 ms only when CONTROL is turned on to execute a momentary operation. Use this mode to control an amplifier channel that supports momentary switching.

MOMENTARY2 (MOM2): The contact closes for 100 ms when CONTROL is turned on and off to execute a momentary operation. Use this mode to control a device that controls functions such as effect on/off via momentary switching.

### Setting Operation Type of MUTE Switch (MT-MD): ON/OFF switch 5



① Turn the **PARAMETER** encoder to select the desired operation type.

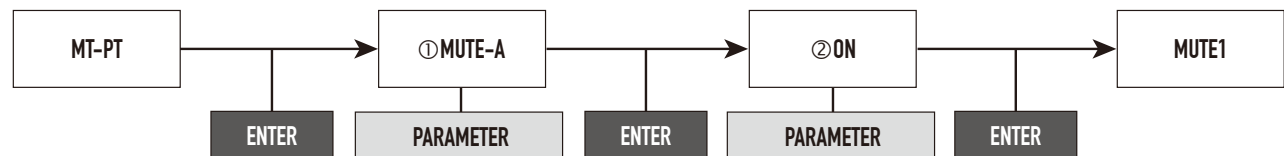
• **AUTO:** The Mute function is automatically cleared when the **PS/L** switch is pressed in the mute status and a preset is recalled.

• **MANUAL:** The Mute function is not cleared when the **PS/L** switch is pressed in the mute status and a preset is recalled. The Mute function is cleared when the **MUTE** switch is pressed again.

• **OFF:** The **MUTE** switch does not operate.

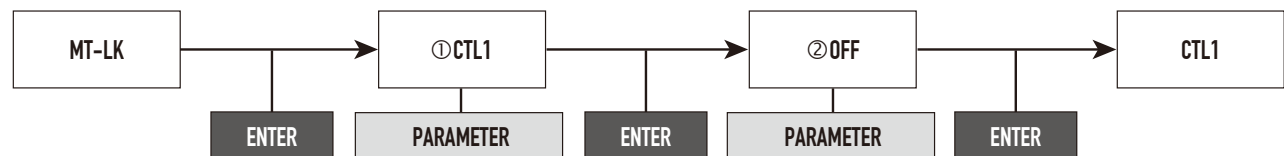
Parameter 1: AUTO, MANUAL, OFF (default = AUTO)

**Selecting Mute Circuit to be Activated when MUTE Switch is Turned On (MT-PT): ON/OFF switch 6**



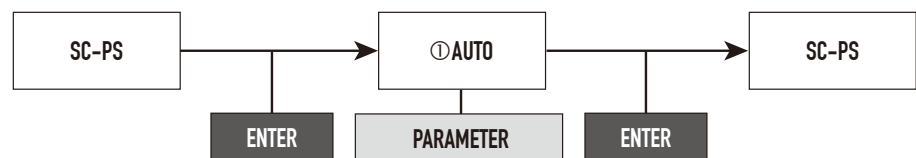
- ① Turn the **PARAMETER** encoder to select the desired mute circuit.  
② Turn the **PARAMETER** encoder to select the desired mute circuit operation.  
Parameter 1: MUTE-A, MUTE-B, MUTE-C  
Parameter 2: ON, OFF  
Default: MUTE-A (ON), MUTE-B (ON), MUTE-C (OFF)

**Selecting Control Terminal to be Activated Simultaneously when MUTE Switch is Pressed (MT-LK): ON/OFF switch 7**



- ① Turn the **PARAMETER** encoder to select the desired control terminal.  
② Turn the **PARAMETER** encoder to select the desired operation.  
Parameter 1: CTL1 to CTL4  
Parameter 2: ON, OFF (default = OFF)

**Setting Operation when Same PS/L Switch is Pressed (SC-PS): ON/OFF switch 8**

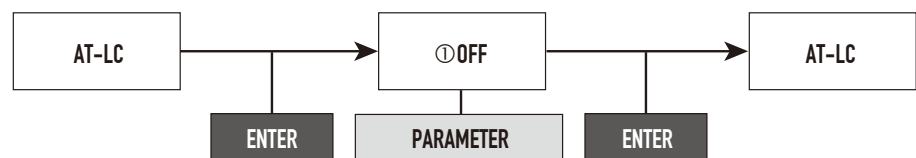


- ① Turn the **PARAMETER** encoder to select the desired operation.  
Parameter 1: OFF, PS10, NONE (default = OFF)  
PS10: When the same preset switch is pressed twice, PS10 is recalled at the second press. If all of the LOOP settings of PS10 are set to OFF, a preset in which all LOOPS are bypassed will be recalled.  
NONE: Even if the same preset switch is pressed multiple times, the preset is not recalled and no MIDI signal is sent after the second and following presses. This setting is required if the device reloads the MIDI signal and does not output the effect sound when the same preset switch is pressed twice and the MIDI signal is sent again.  
OFF: The unit is set to the default status. By pressing the same preset switch, the preset is recalled and the defined MIDI signal is output.

**UTILITY: PS7/L7 switch**

Internal detailed settings of the ARC-4 are done in these cofiguration modes.

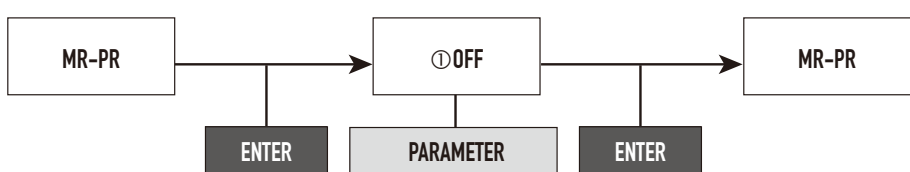
**Locking Out Setting Changes from Front Panel (AT-LC): ON/OFF switch 1**



- ① Turn the **PARAMETER** encoder to select ON or OFF.  
Parameter: ON, OFF (defalut = OFF)

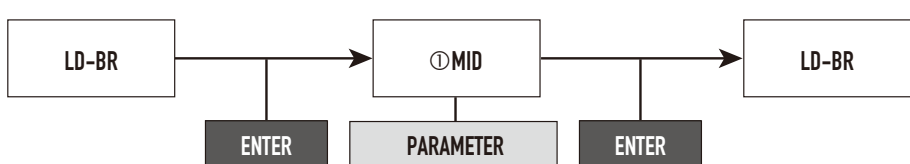
**NOTE**  
The initial setting is OFF. If set to ON, the Lock function is automatically activated after about 10 minutes of no user operation and it becomes impossible to change settings from the front panel.

**Protecting Memory Contents from Change (MR-PR): ON/OFF switch 2**



- ① Turn the **PARAMETER** encoder to select ON or OFF.  
N.B. The initial setting is OFF. If set to ON, it becomes impossible to edit the stored contents. When set to ON, the **M.PROTECT** dot in the **Display-1** illuminates.  
Parameter: OFF, ON (default = OFF)

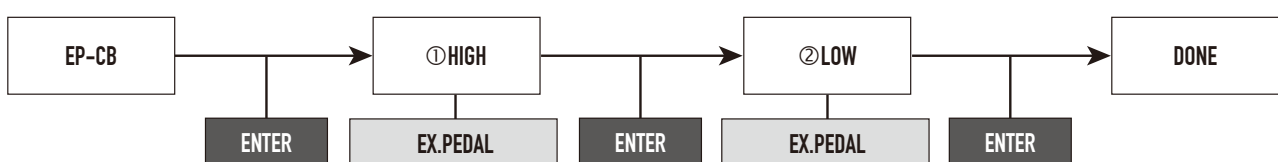
**Adjusting LED Brightness (LD-BR): ON/OFF switch 3**



- ① Turn the **PARAMETER** encoder to adjust the LED brightness.  
Parameter: MID (middle), HIGH (bright), LOW (dim) (default = MID)

**NOTE**  
The initial setting is MID. Set to HIGH if the LEDs are dim and not clearly visible in open-air performances, etc.

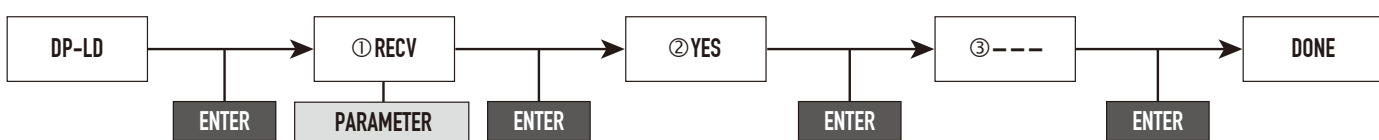
**Setting Expression Pedal's Calibration (EP-CB): ON/OFF switch 4**



- The expression pedal connected to the **EXT** terminal is calibrated in this configuration mode. By execituting this process, you can control from the minimum to maximum values precisely. Be sure to use an expression pedal with variable resistance from 10k $\Omega$  to 25k $\Omega$ .  
① When the display shows "**HI GH**," put the expression pedal to the toe down position to get the maximum value. Then press the **ENTER** switch to confirm.  
② When the display shows "**LOW**," put the expression pedal to the toe up position to get the minimum value. Then press the **ENTER** switch to confirm.  
③ When the display shows "**DONE**," then the calibration is completed.

**NOTE**  
If "**ERROR**" is shown after pressing the **ENTER** switch, please check the expression pedal and/or the connecting cable.

**Receiving ARC-4's Data (DP-LD): ON/OFF switch 5**

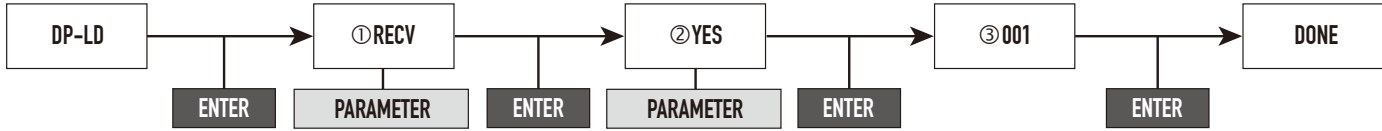


- ① Turn the **PARAMETER** encoder to select "RECV."  
② When "YES" is shown, press the **ENTER** switch to put the ARC-4 in data receive ready status "---."  
③ The display starts counting up when data reception starts.  
Parameter 1: RECIEVE [RECV], SEND

**NOTE**  
This ARC-4 units automatically receives data when another ARC-4 starts data transmission. When it is completed, the dispaly shows "**DONE**" then returns to "DP-LD."



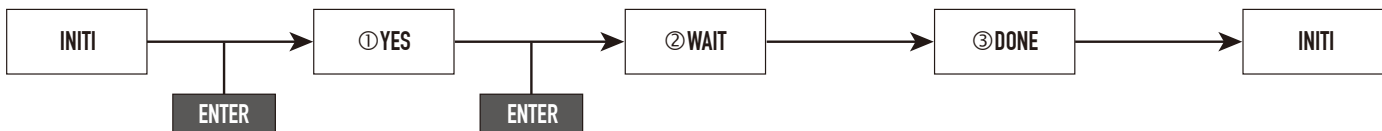
**Sending ARC-4's Data (DP-LD): ON/OFF switch 5**



- ① Turn the **PARAMETER** encoder to select “SEND.”
- ② Press the **ENTER** switch to start data transmission when “YES” is shown.
- ③ The display starts counting up when the data transmission starts.  
Parameter: RECIEVE [RECV], SEND

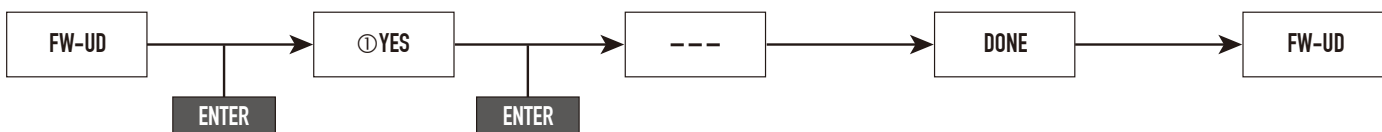
**NOTE**  
Before stating the data transmission, be sure to make the desitination ARC-4 ready to receive the data.

**Initializing to Factory Reset Status (INITI): ON/OFF switch 6**



- ① Press the **ENTER** switch when “YES” is shown.
- ② When the process is in progress, “WAIT” is shown.
- ③ When the **Display-1** shows “DONE,” the process is completed and all of the stored data is lost.

**Updating Firmware via MIDI (FW-UD): ON/OFF switch 7**



The ARC-4 can update its firmware via MIDI. For the latest firmware or connection and setup procedures, please confirm with the product or support page of the Free The Tone website.

**Using ARC-4 Efficiently**

**Connection Examples**

**Basic Connection**

This is a basic setup in which one guitar and seven effects units are connected in series and one amplifier is used.

**Using Two Guitars Separately**

Use the separate loop (LOOP 8) as an input selector.

**Switching between Two Amplifiers**

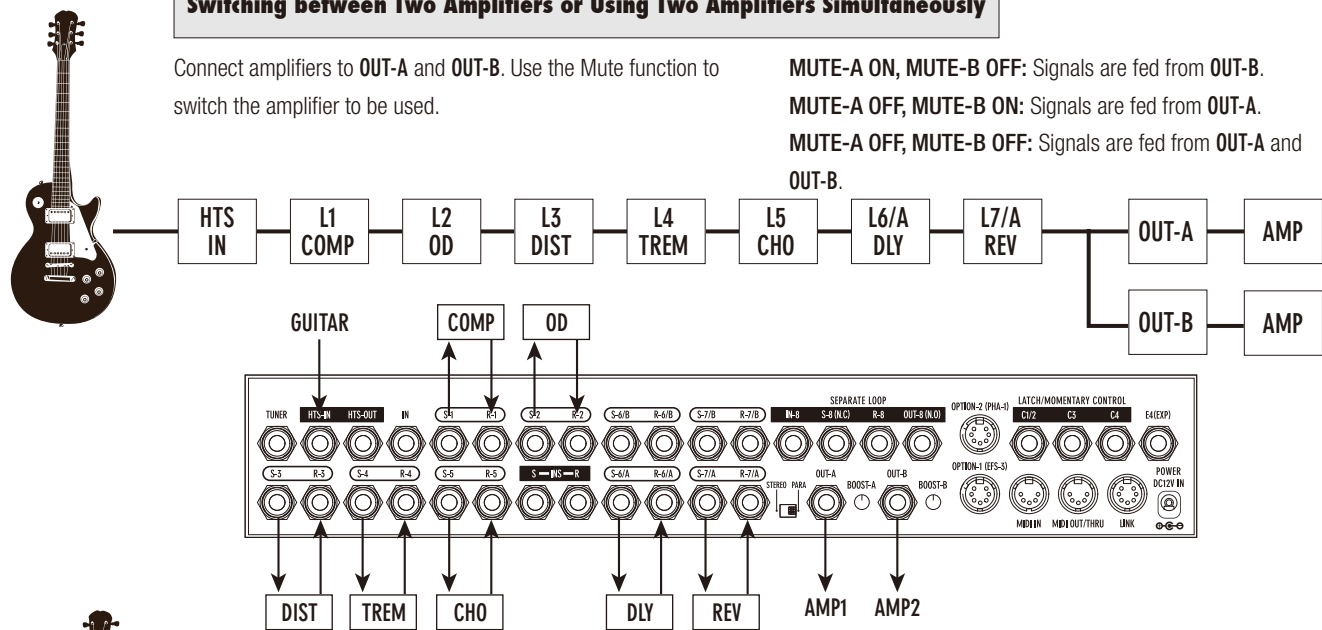
Use the separate loop (LOOP 8) as an output selector.

Connection Examples

Switching between Two Amplifiers or Using Two Amplifiers Simultaneously

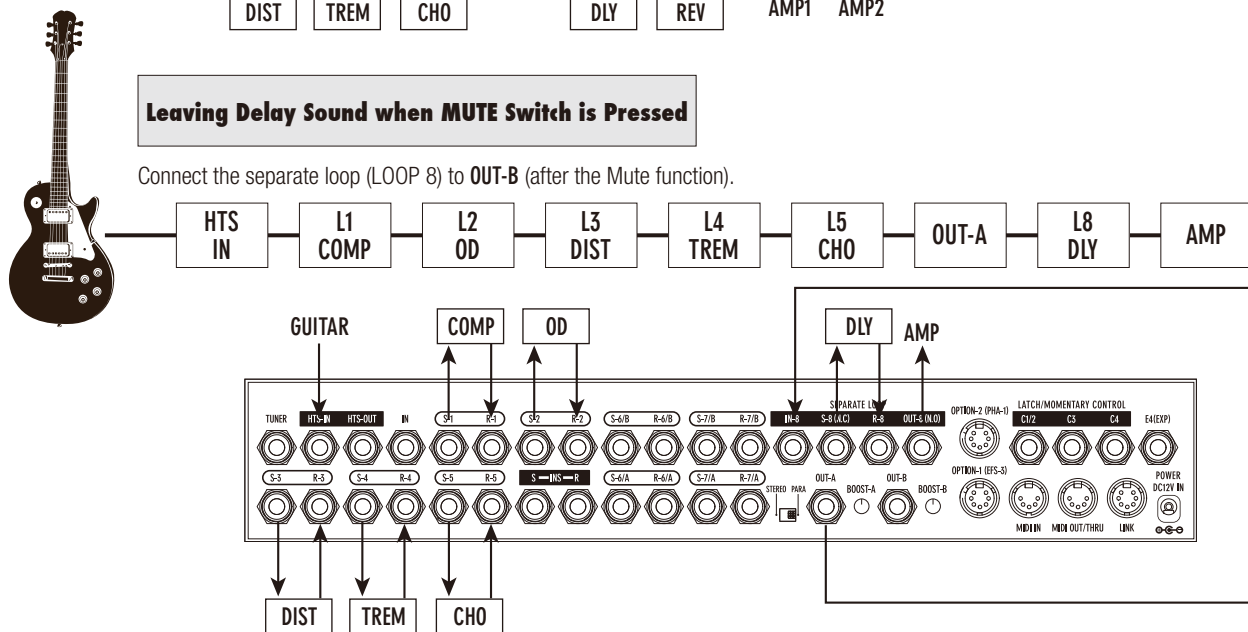
Connect amplifiers to **OUT-A** and **OUT-B**. Use the Mute function to switch the amplifier to be used.

**MUTE-A ON, MUTE-B OFF:** Signals are fed from **OUT-B**.  
**MUTE-A OFF, MUTE-B ON:** Signals are fed from **OUT-A**.  
**MUTE-A OFF, MUTE-B OFF:** Signals are fed from **OUT-A** and **OUT-B**.



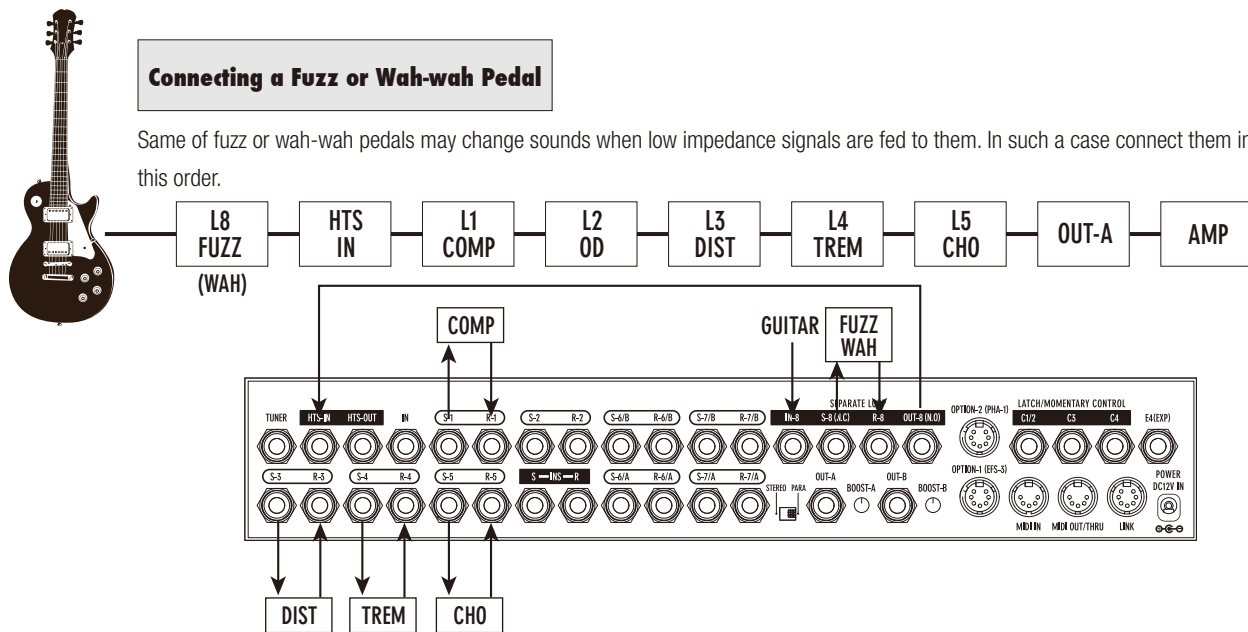
Leaving Delay Sound when MUTE Switch is Pressed

Connect the separate loop (LOOP 8) to **OUT-B** (after the Mute function).



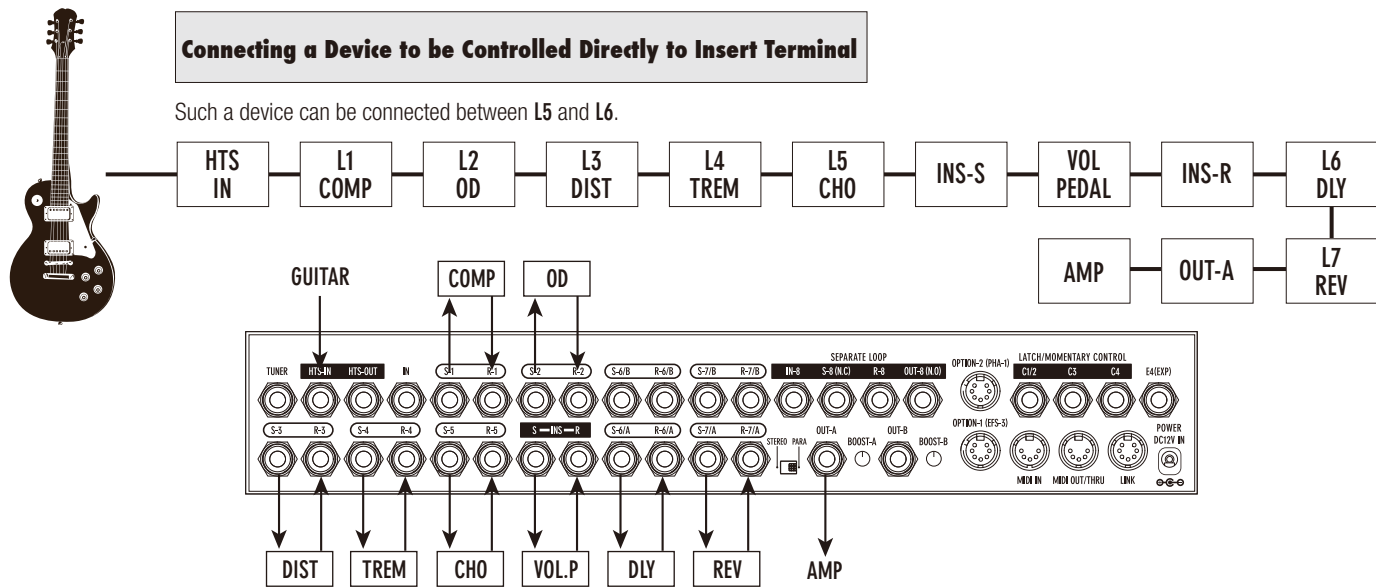
Connecting a Fuzz or Wah-wah Pedal

Some of fuzz or wah-wah pedals may change sounds when low impedance signals are fed to them. In such a case connect them in this order.



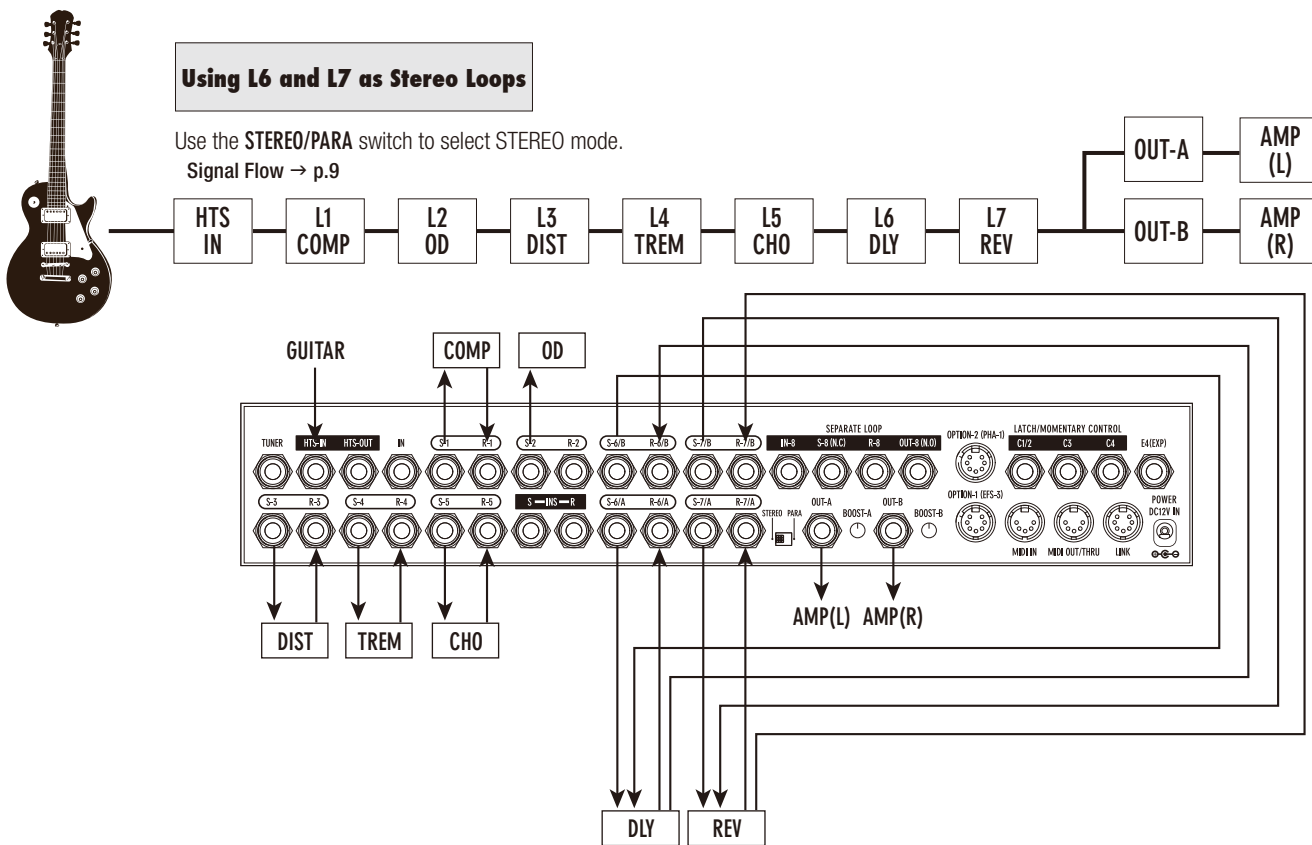
Connecting a Device to be Controlled Directly to Insert Terminal

Such a device can be connected between **L5** and **L6**.



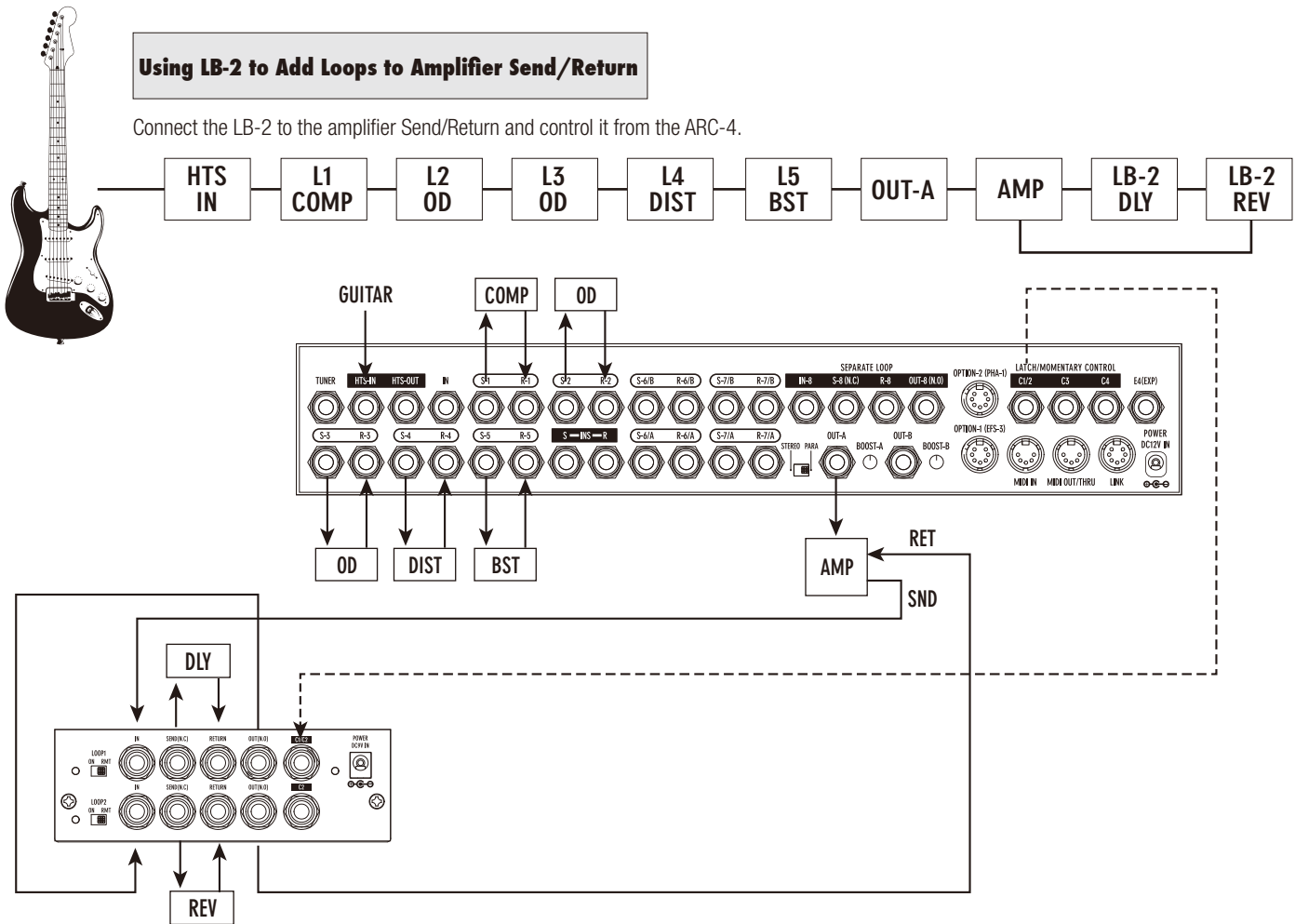
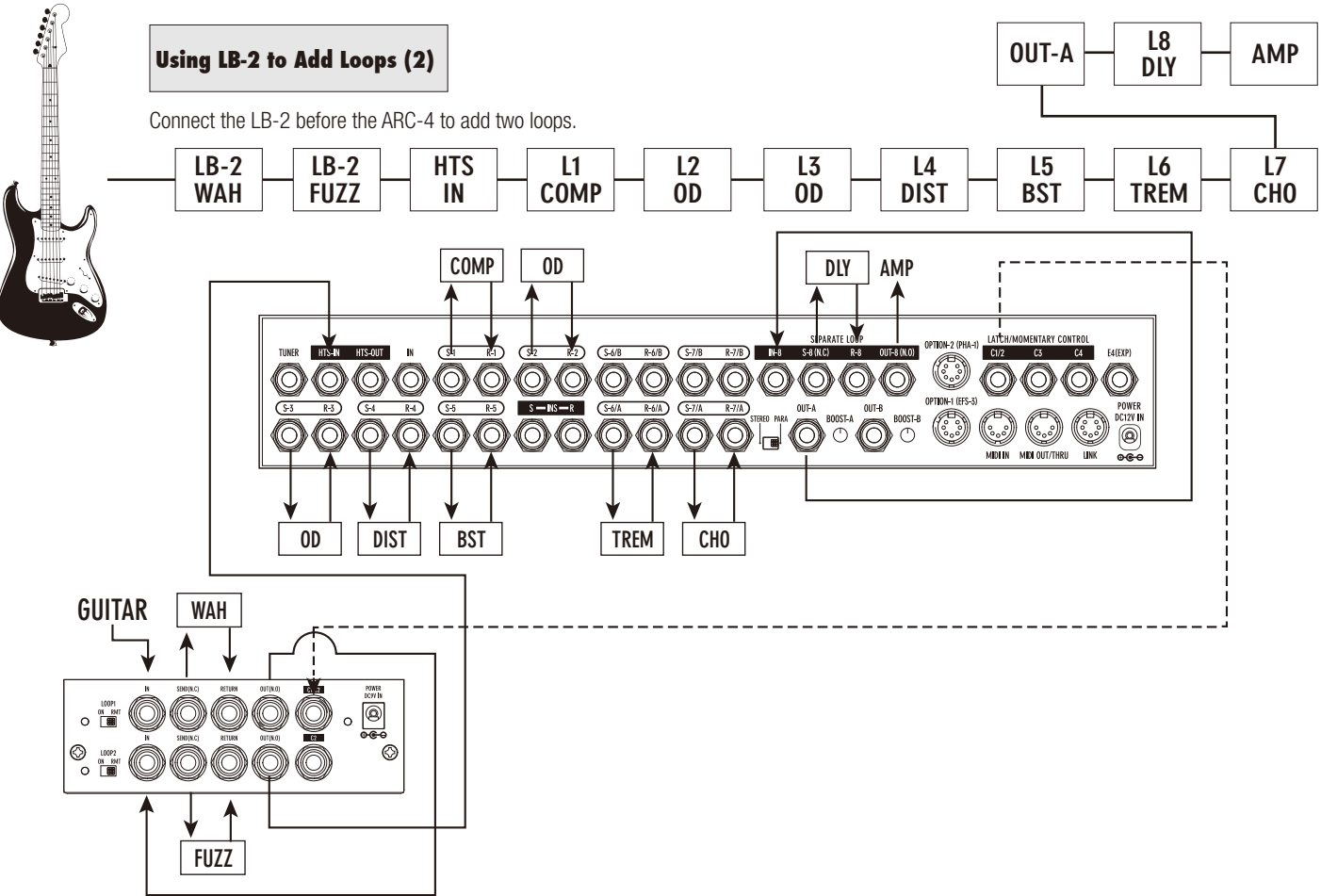
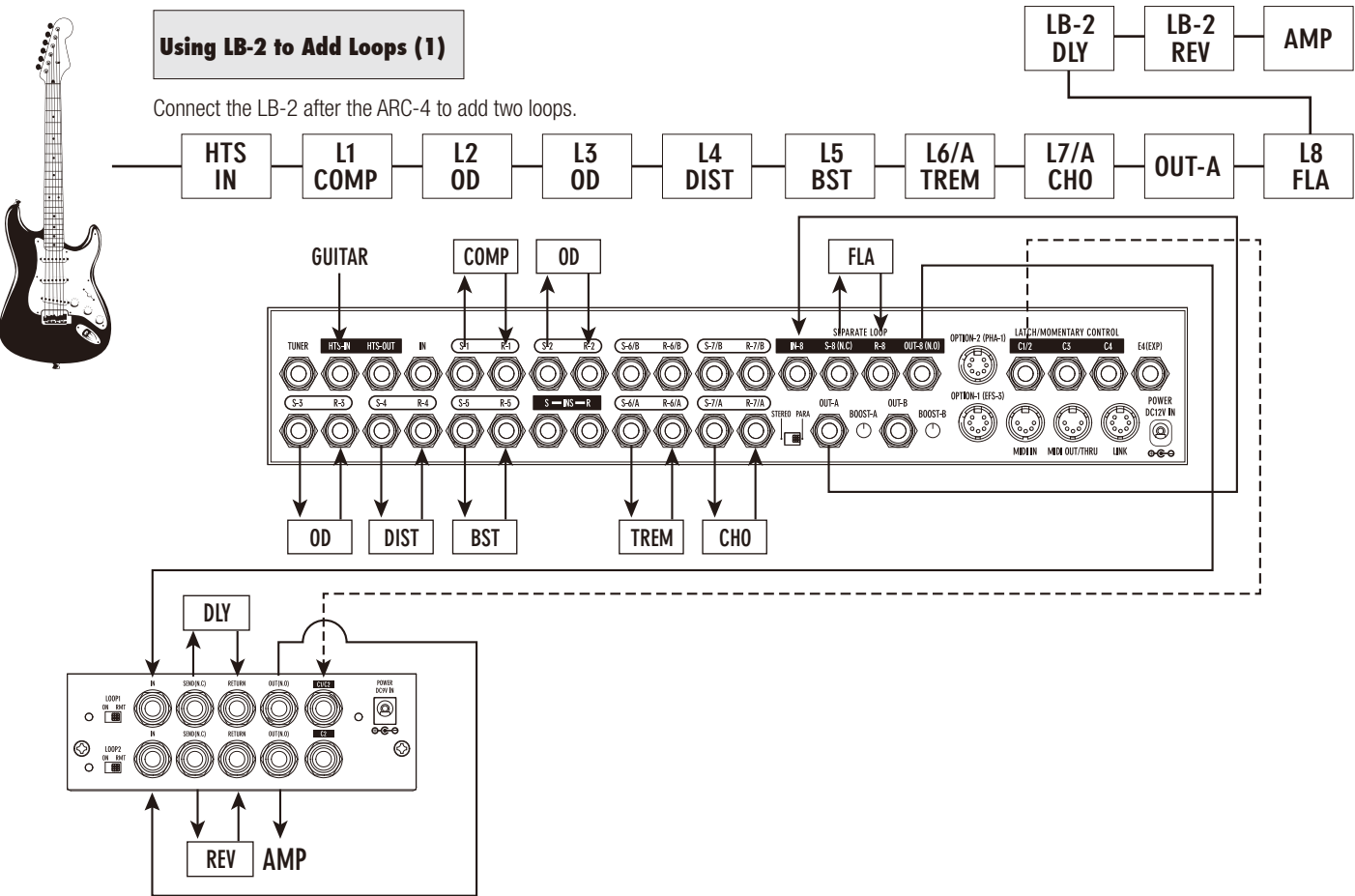
Using L6 and L7 as Stereo Loops

Use the **STEREO/PARA** switch to select **STEREO** mode.  
Signal Flow → p.9



Further Connection Examples

By connecting the Free the Tone LOOP BOX LB-2 (option) for system expansion and the ARC-4, you can construct your system more flexibly.



Details of MIDI Data Sent When CSW is Turned On/Off

|            | When CSW is turned on (LED ON) | When CSW is turned off (LED OFF) |
|------------|--------------------------------|----------------------------------|
| LATCH      | 7f                             | 00                               |
| MOMENTARY1 | 7f wait 00                     | No data transmitted              |
| ON SEND    | 7f                             | No data transmitted              |
| MOMENTARY2 | 7f wait 00                     | 7f wait 00                       |

N.B. 7f is the maximum MIDI value 127 expressed in hexadecimal. "VALUE" can send any value set when the CSW control switch was turned on or off.

Details of ON/OFF and SELECT Switches

|          | 1     | 2     | 3     | 4     | 5     | 6     | 7      | 8      |
|----------|-------|-------|-------|-------|-------|-------|--------|--------|
| FUNC     | C1    | C2    | C3    | C4    | INV   | BST   | MUTE-A | MUTE-B |
| CSW(CC#) | CSW1  | CSW2  | CSW3  | CSW4  | CSW5  | CSW6  | CSW7   | CSW8   |
| LOOP     | LOOP1 | LOOP2 | LOOP3 | LOOP4 | LOOP5 | LOOP6 | LOOP7  | LOOP8  |

**FUNC Mode:** The **SELECT 1–4** switches correspond to the **C1–C4** terminals and set the on/off status of the control signal. The **SELECT 5** switch turns on/off the Phase Invert function (INV). The **SELECT 6** switch turns on/off the Boost function (BST). The **SELECT 7 and 8** switches turn on/off the Mute function.

**CSW(CC#) Mode:** The **SELECT 1–8** switches correspond to the **CSW 1–8** control switches and set their on/off status.

**LOOP Mode:** The **SELECT 1–8** switches correspond to the **LOOP 1–8** loops and set their on/off status.

ARC-4’s Bank Presets and MIDI Program Change Numbers

MIDI Program Change Numbers Received from MIDI IN When in Bank Mode

| PC#    |        |        |        | BANK | PRESET |    | BANK | PRESET |
|--------|--------|--------|--------|------|--------|----|------|--------|
| 001    | to     | 128    |        | 001  | 01     | to | 013  | 08     |
| MSB000 | LSB000 | MSB000 | LSB000 |      |        |    |      |        |
| 001    | to     | 128    |        | 013  | 09     | to | 026  | 06     |
| MSB000 | LSB001 | MSB000 | LSB001 |      |        |    |      |        |
| 001    | to     | 128    |        | 026  | 07     | to | 039  | 04     |
| MSB000 | LSB002 | MSB000 | LSB002 |      |        |    |      |        |
| 001    | to     | 128    |        | 039  | 05     | to | 052  | 02     |
| MSB000 | LSB003 | MSB000 | LSB003 |      |        |    |      |        |
| 001    | to     | 128    |        | 052  | 03     | to | 064  | 10     |
| MSB000 | LSB004 | MSB000 | LSB004 |      |        |    |      |        |
| 001    | to     | 128    |        | 065  | 01     | to | 077  | 08     |
| MSB000 | LSB005 | MSB000 | LSB005 |      |        |    |      |        |
| 001    | to     | 128    |        | 077  | 09     | to | 090  | 06     |
| MSB000 | LSB006 | MSB000 | LSB006 |      |        |    |      |        |
| 001    | to     | 128    |        | 090  | 07     | to | 103  | 04     |
| MSB000 | LSB007 | MSB000 | LSB007 |      |        |    |      |        |
| 001    | to     | 128    |        | 103  | 05     | to | 116  | 02     |
| MSB000 | LSB008 | MSB000 | LSB008 |      |        |    |      |        |
| 001    | to     | 128    |        | 116  | 03     | to | 128  | 10     |
| MSB000 | LSB009 | MSB000 | LSB009 |      |        |    |      |        |
| 001    | to     | 128    |        | 129  | 01     | to | 141  | 08     |
| MSB000 | LSB010 | MSB000 | LSB010 |      |        |    |      |        |
| 001    | to     | 128    |        | 141  | 09     | to | 154  | 06     |
| MSB000 | LSB011 | MSB000 | LSB011 |      |        |    |      |        |
| 001    | to     | 128    |        | 154  | 07     | to | 167  | 04     |
| MSB000 | LSB012 | MSB000 | LSB012 |      |        |    |      |        |
| 001    | to     | 128    |        | 167  | 05     | to | 180  | 02     |
| MSB000 | LSB013 | MSB000 | LSB013 |      |        |    |      |        |
| 001    | to     | 128    |        | 180  | 03     | to | 192  | 10     |
| MSB000 | LSB014 | MSB000 | LSB014 |      |        |    |      |        |
| 001    | to     | 080    |        | 193  | 01     | to | 200  | 10     |
| MSB000 | LSB015 | MSB000 | LSB015 |      |        |    |      |        |

Main Specifications/Ratings

- HTS Circuit
  - Number of Effect Loops: 8 [series loops: 7 (5 monaural loops + 2 stereo loops), separate loop: 1]
  - Number of Prests: 200 banks x 10 presets (2,000 presets in total)
  - Number of Control Terminals: 4 (latch/momentary selectable)
  - Boost function (boost range: 0 to +14 dB)
  - Phase Invert function
  - Input Impedance: 1 MΩ (HTS-IN)
  - Output Load Impedance: Min. 10kΩ (HTS-OUT / OUT-A / OUT-B)
  - Power Supply: Dedicated AC-to-DC12V adapter  
For USA: FA-1220D-JA  
For UK: FA-1220D-UK  
For Europe: FA-1220D-EU
  - Consumption Current: approx. 750mA
  - Dimensions: 386 (W) x 152 (D) x 81.5 (H) mm (incl. produberances such as footswitches, jacks, etc.)
  - Weight: approx. 2.1 kg (excl. accessories)
  - Accessories: Owner’s Manual, AC Adapter for ARC-4, Adhesive Rubber Foot (4 pcs)
- Specifications and appearance subject to change without notice.

### SAFETY PRECAUTIONS

Precautions are identified by the two types of symbols below:

**Caution**

This symbol indicates that a risk of serious personal injury or material damage may result if precautions are ignored.

**Warning**

This symbol indicates that a risk of death or serious personal injury may result if pre-cautions are ignored.

**Be sure to read these precautions and the user's manual before using this product.**

**Caution**

Do not use or store the unit in environments where it will be exposed to:

- Extreme temperatures (direct rays of the sun, heat sources such as radiators or stoves.)
- High humidity or moisture.
- Excessive dust or sand.
- Excessive vibration or shock.

Whenever leaving the unit unattended for long periods, be sure to unplug the AC adapter from the power source to avoid creating a fire hazard.

Take care not to drop the unit, and do not subject it to excessive pressure or weight.

Do not press the switches on the unit with a bare foot, or unexpected injury may result.

Do not use solvents (such as benzine, paint thinner) on the unit, since these may dull the finish or damage the surface.

**Warning**

Never try to disassemble, or modify the unit.

Stop using the unit if you notice smoke or a strange odor coming from it and unplug the AC adapter from the outlet.

Never try to repair the unit or replace parts unless so instructed by the user's manual. For other repair or parts replacement contact your local dealer or Free The Tone.

Never unplug the AC adapter while your hands are wet.

Do not apply too much pressure or tension or place a heavy object on the power cord. Doing so may damage the power cord and create a danger of fire or electrical shock.

Turn off the unit and unplug the AC adapter from the outlet and contact your local dealer or Free The Tone for repair in the case of any of the following:

- The power cord is damaged.
- Foreign objects (coins, pins, etc.) or liquid enter the unit.
- The unit gets wet from rain or other liquid.
- The unit is out of order.

Be careful of heat radiation from the unit.

Never cover the AC adapter with cloth or other objects. Built-up heat can deform the case or cause a fire hazard.

Support/Service

Contact the following for support and/or repair service.  
e-mail address: [overseas@freethetone.com](mailto:overseas@freethetone.com)

30

31