ARC-4

AUDIO ROUTING CONTROLLER

OWNER'S MANUAL

FREE THE TONE

THE HOLISTIC APPROACH
TO SYSTEM DESIGN

Ver 1.1
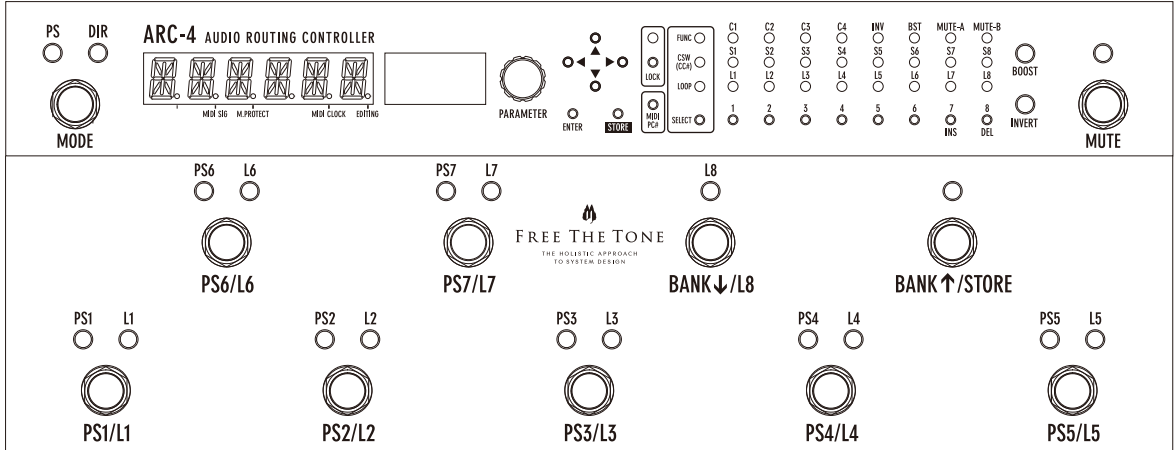
Thank you for choosing a Free The Tone product.

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

Handling Precautions

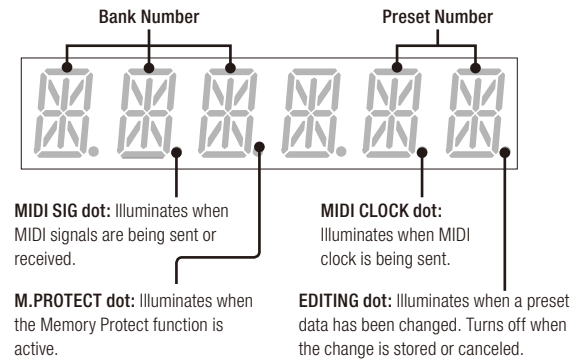- Never connect or disconnect plugs to/from the input/output terminals on the ARC-4 when the external device that drives speakers is powered. Doing so can cause noises and damage the speakers.
- Avoid applying excessive force to the footswitches, tact switches, and phone jacks on the ARC-4.
- If the 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

Display-2

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

PARAMETER Encoder

Turn this encoder to select a function or change a value.

MIDI PC# Switch

Press this switch when you set a MIDI program change number.

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.

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

BOOST LED

Illuminates when the Boost function is active.

INVERT LED

Illuminates when the Phase Invert function is active.

ARC-4 AUDIO ROUTING CONTROLLER

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

FREE THE TONE
THE HOLISTIC APPROACH TO SYSTEM DESIGN

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.
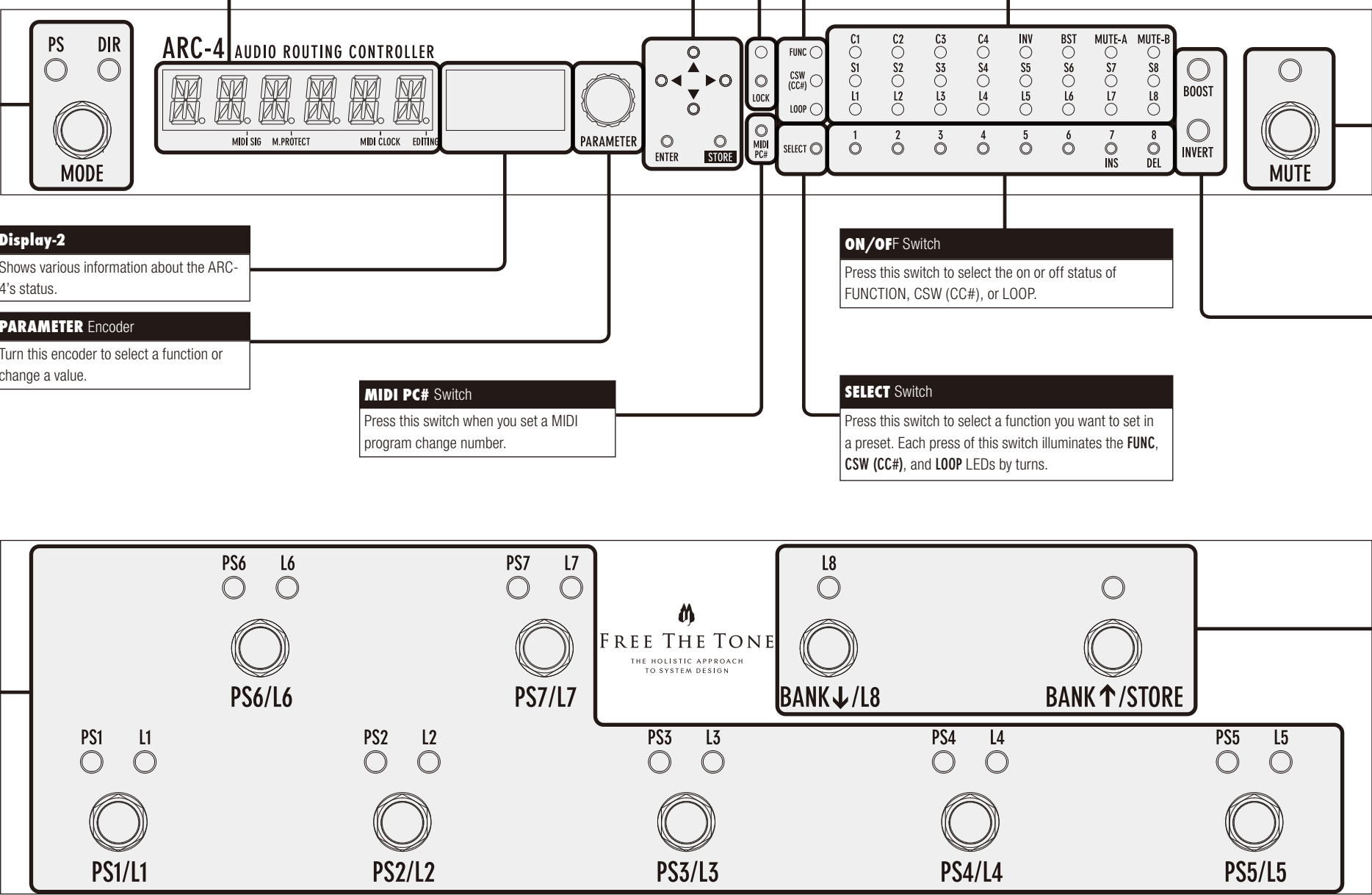Press this switch in Direct mode to store the setting. Note that various functions can be assigned to this switch by the setting done in Edit mode.
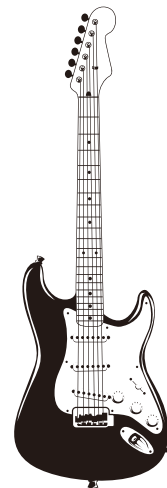
Controls and Indicators

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/C3/C4 — C2/C3/C4

Tip : Hot
Ring : Cold
Sleeve : GND

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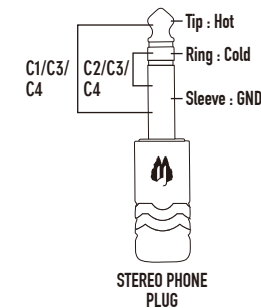
C1 terminal: When C1 is turned on, the tip and ground of the plug are electrically connected.

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 disconnected: the ring 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 disconnected: the ring 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.

IN-8, S-8 (N.C), R-8, OUT-8 (N.O) Terminals (Separate Loop)
Effect loop terminal electrically isolated from other loops. Signals are sent to the connected effects unit from the **S-8** terminal. Signals that went through the effects unit are received at the **R-8** terminal.
> Terminals in Detail → p.8
> 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

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.

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.

Panel labels: TUNER | HTS-IN | HTS-OUT | IN | S-1 | R-1 | S-2 | R-2 | S-6/B | R-6/B | S-7/B | R-7/B | SEPARATE LOOP | IN-8 | S-8 (N.C) | R-8 | OUT-8 (N.O) | OPTION-2 (PHA-1) | LATCH/MOMENTARY CONTROL C1/2 | C3 | C4 | E4(EXP)
S-3 | R-3 | S-4 | R-4 | S-5 | R-5 | S—INS—R | S-6/A | R-6/A | S-7/A | R-7/A | STEREO PARA | OUT-A | BOOST-A | OUT-B | BOOST-B | OPTION-1 (EFS-3) | MIDI IN | MIDI OUT/THRU | LINK | POWER DC12V IN

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.

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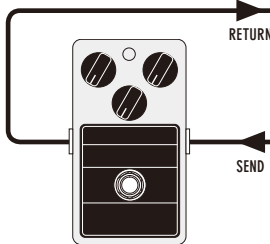
S-INS-R Terminals (Insert Terminal)
The **INS-S** terminal is an output terminal that feeds signals that went through from the effect loops 1 to 5. This output will not be muted even when the **MUTE** switch is turned on.
The **INS-R** terminal is an input terminal located just before the effect loop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

S-6/A·B–S-7/A·B, R-6/A·B–R-7/A·B 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

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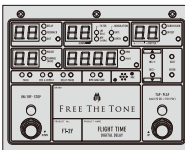
OPTION-1 (EFS-3) and OPTION-2 (PHA-1) Terminals

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 turining 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 electorically 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 resiststance.

> 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, simarly to PARA mode.
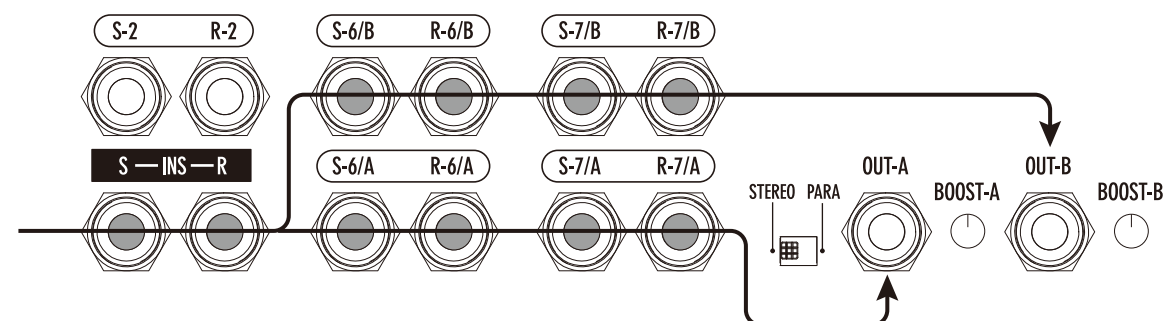
PARA Mode

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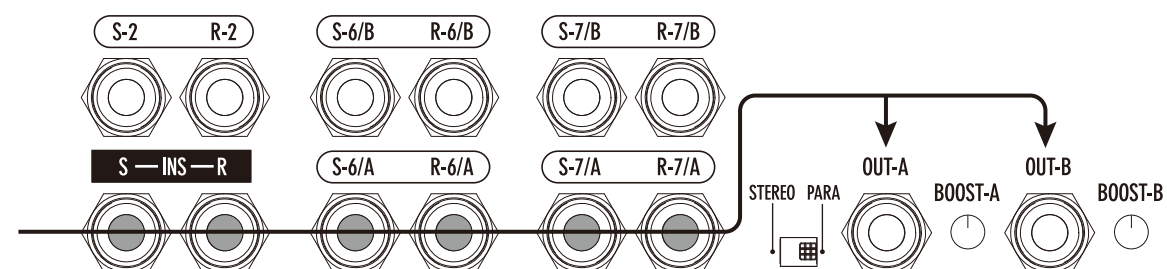
How to Store/Recall Effect Loop Combinations or Various Functions (Preset Mode)

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 contens 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).

Bank Number   Preset Number
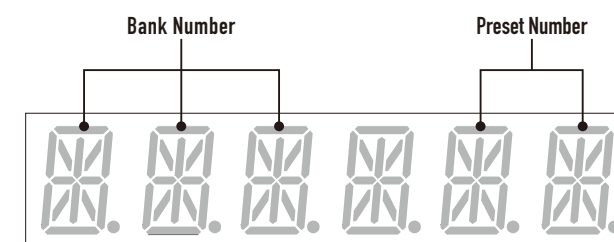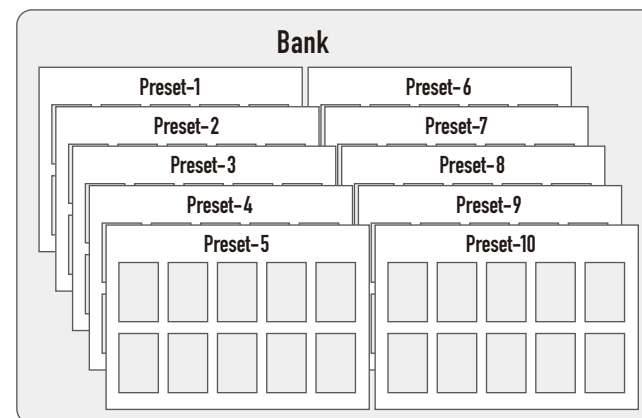
> **NOTE**
> PS8–PS10 (Preset No.8 to Preset No.10) cannot be recalled from the ARC-4 main unit. By connecting the EXTERNAL FOOTSWITCH/EFS-3 (option) to the **OPTION-1 (EFS-3)** terminal, it becomes possible to recall presets externally.
>
> Setting Function to be Assigned to EFS-3 Connected to OPTION-1 (EFS-3) Terminal and PS/L Switch on ARC-4 → p.21
> Using ARC-4 Efficiently → p.25

Block Diagram
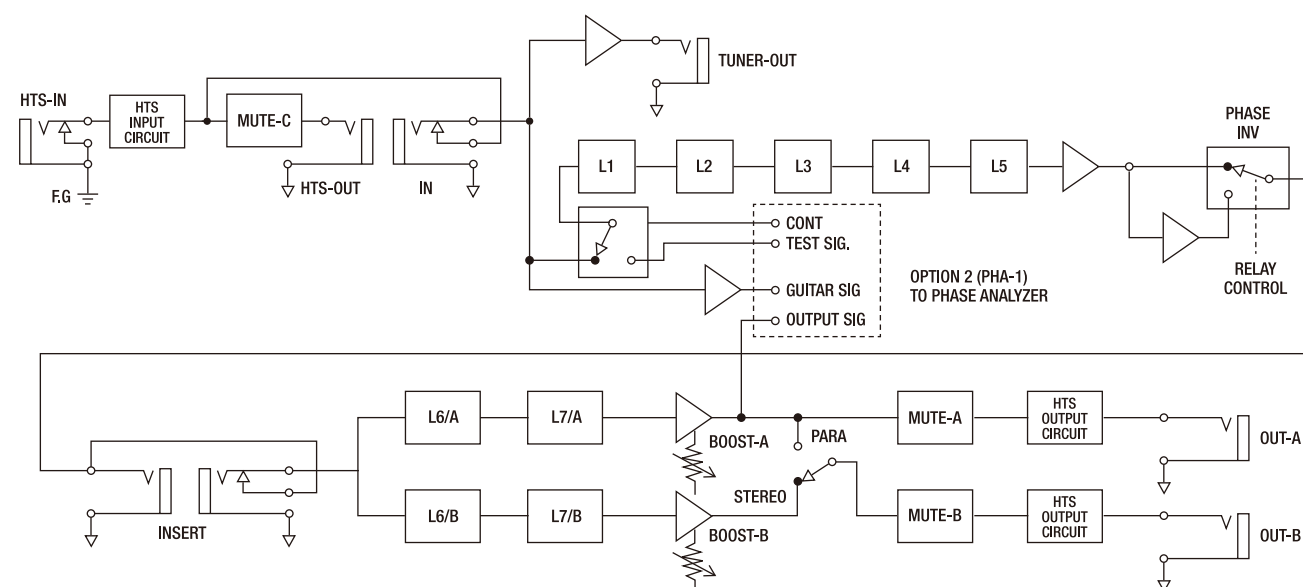
Managing Presets

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 settigs, 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.
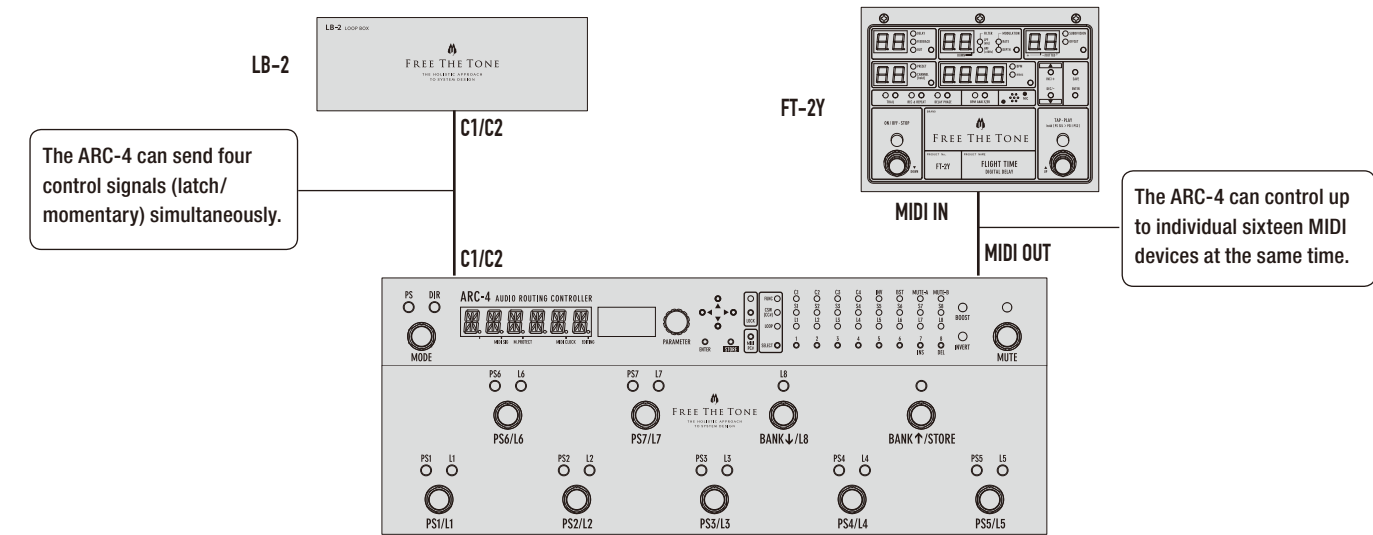6. Press the **STORE** switch to store the setting.

> **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.

The ARC-4 can send four control signals (latch/momentary) simultaneously.

The ARC-4 can control up to individual sixteen MIDI devices at the same time.

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.

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 suimultaneously 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 (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
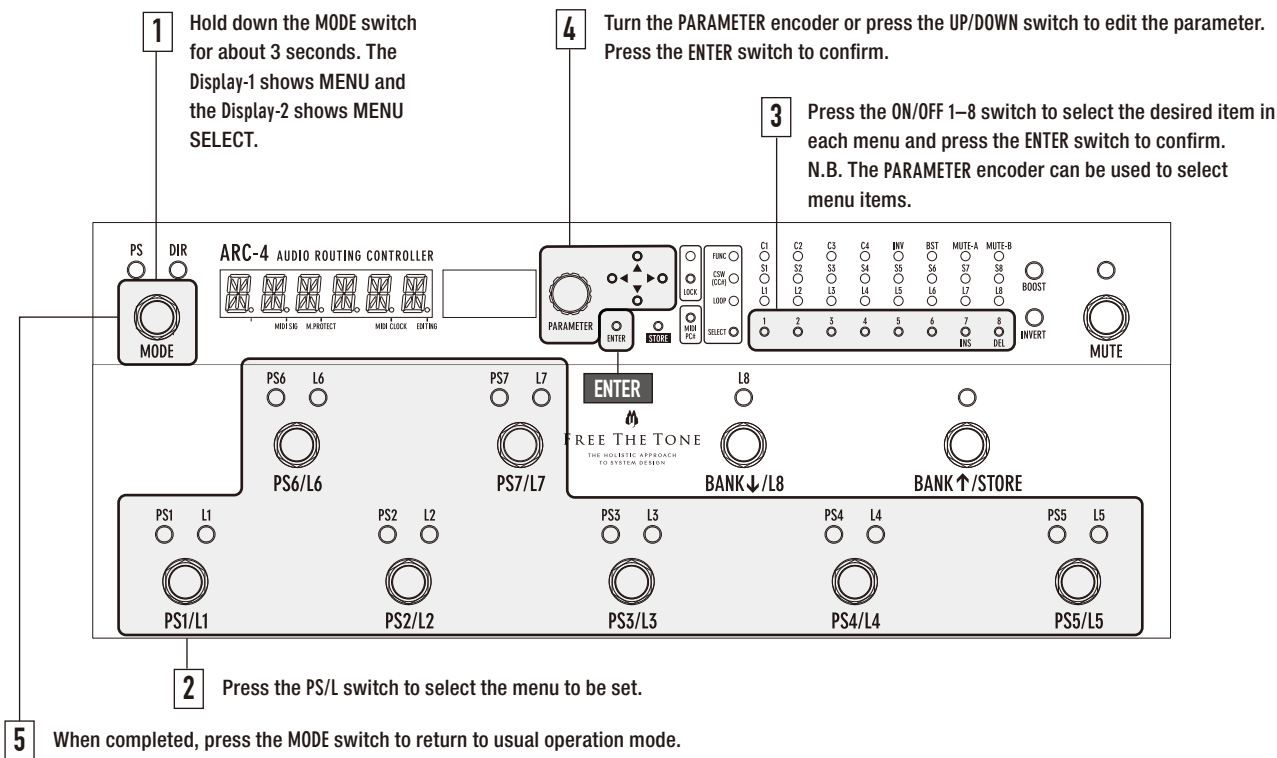Parameter 4: (operation method) LATCH, MOMENTARY1 (MOM1), MOMENTARY2 (MOM2), ONSEND, VALUE
Parameter 5: (only when VALUE is selected in Parameter 4) ON (000 to 127), OFF (NON, 000 to 127)

> **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.

1 Hold down the MODE switch for about 3 seconds. The Display-1 shows MENU and the Display-2 shows MENU SELECT.

4 Turn the PARAMETER encoder or press the UP/DOWN switch to edit the parameter. Press the ENTER switch to confirm.

3 Press the ON/OFF 1–8 switch to select the desired item in each menu and press the ENTER switch to confirm. N.B. The PARAMETER encoder can be used to select menu items.

2 Press the PS/L switch to select the menu to be set.

5 When completed, press the MODE switch to return to usual operation 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
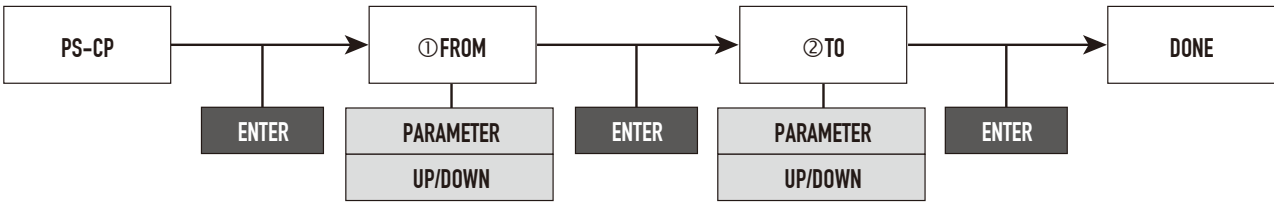
< When Copying a Preset >
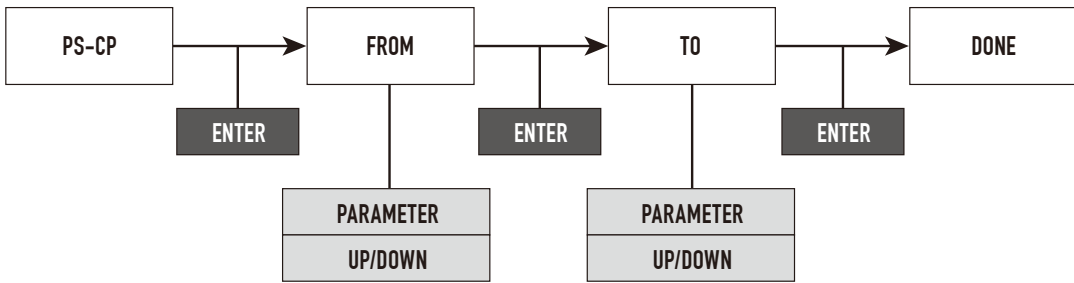
NOTE: In Edit mode, changes are accepted when the **ENTER** switch on the control panel is pressed. It is not necessary to press the **STORE** switch.

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

```
BK-DL ──────▶ ①BNK001 ──────▶ DONE
        ENTER   PARAMETER   ENTER
                UP/DOWN
```

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

```
PS-SW ──────▶ ①001-01 ──────▶ ②AND ──────▶ DONE
        ENTER   PARAMETER   ENTER   PARAMETER   ENTER
                UP/DOWN             UP/DOWN
```
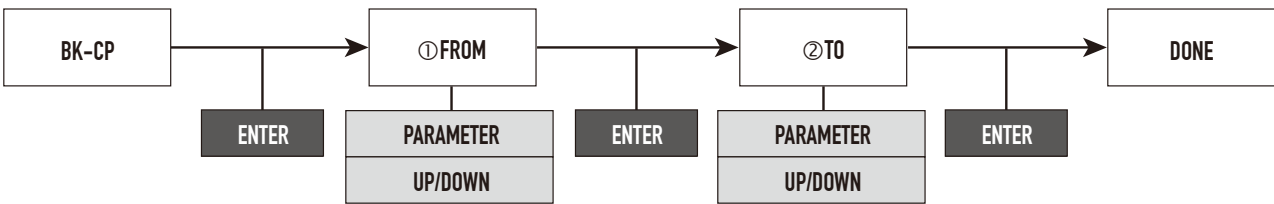
① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the source preset.
② Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the destination preset.

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

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

```
BK-SW ──────▶ ①BNK001 ──────▶ ②AND ──────▶ DONE
        ENTER   PARAMETER   ENTER   PARAMETER   ENTER
                UP/DOWN             UP/DOWN
```
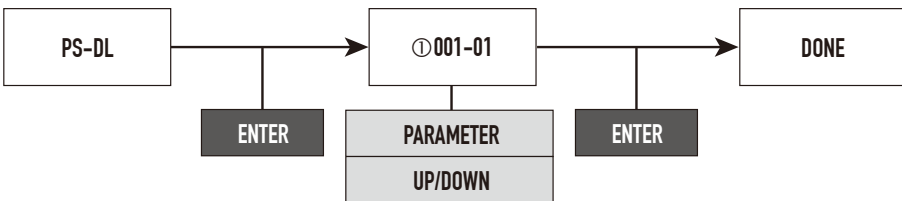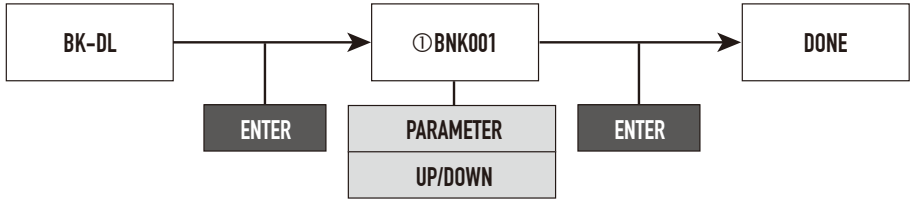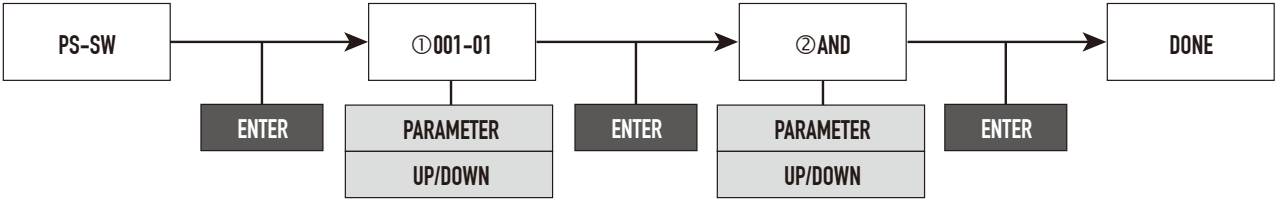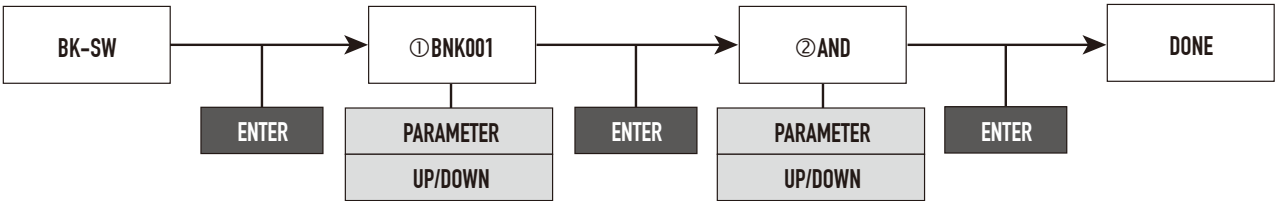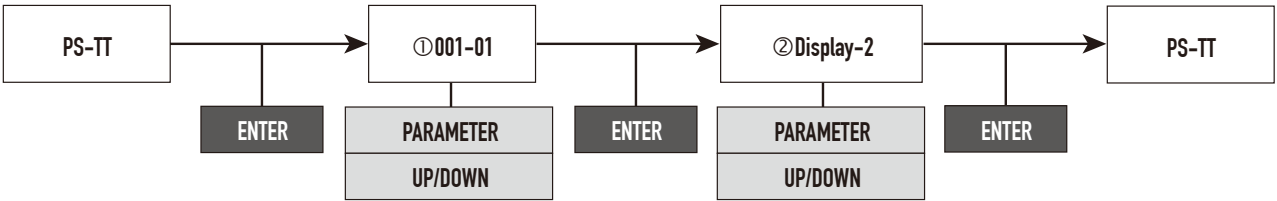
① Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the source bank.
② Turn the **PARAMETER** encoder or press the **UP/DOWN** switch to select the destination bank.

   Parameter: BNK001 to BNK200 (default = BNK001)

TITLE: PS2/L2 switch

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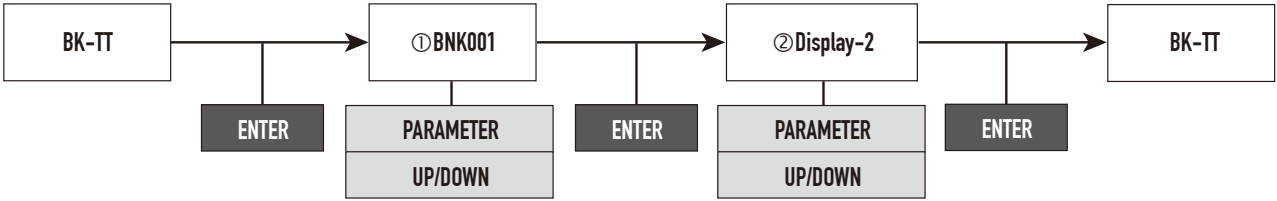N.B. Pressing the **UP/DOWN** switch when entering lables changes character types to be entered.

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

```
PS-TT ──────▶ ①001-01 ──────▶ ②Display-2 ──────▶ PS-TT
        ENTER   PARAMETER   ENTER   PARAMETER   ENTER
                UP/DOWN             UP/DOWN
```

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.
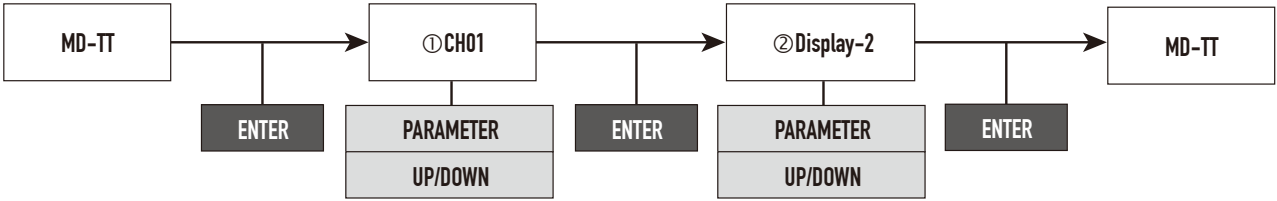 **Setting Duration in which Recalled Preset Title is Being Shown → p.15**

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

```
BK-TT ──────▶ ①BNK001 ──────▶ ②Display-2 ──────▶ BK-TT
        ENTER   PARAMETER   ENTER   PARAMETER   ENTER
                UP/DOWN             UP/DOWN
```

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

```
MD-TT ──────▶ ①CH01 ──────▶ ②Display-2 ──────▶ MD-TT
        ENTER   PARAMETER   ENTER   PARAMETER   ENTER
                UP/DOWN             UP/DOWN
```

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 usuful when controlling multiple MIDI devices.

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

```
TT-DP ──────▶ ①ON-1s ──────▶ TT-DP
        ENTER   PARAMETER   ENTER
                UP/DOWN
```
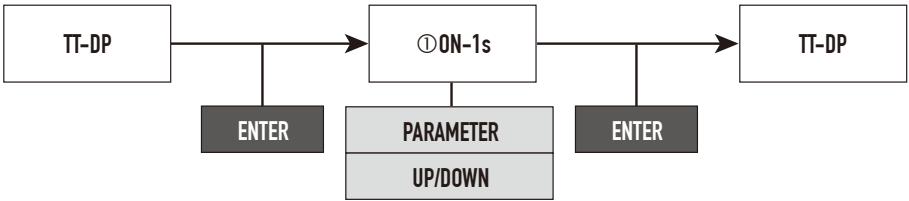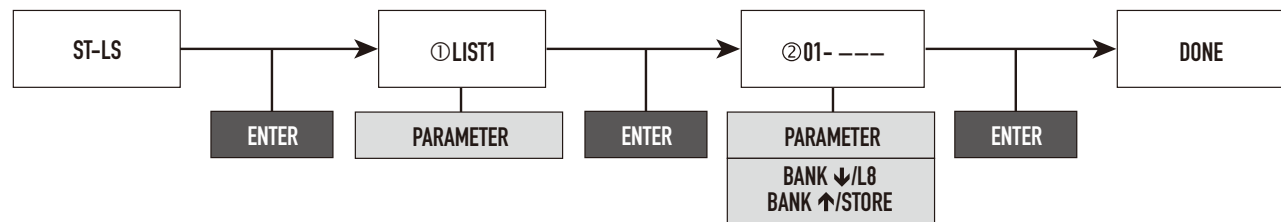
① Turn the **PARAMETER** encoder to set the desired time (duration).

   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

ST-LS	→	①LIST1	→	②01- – – –	→	DONE
	ENTER	PARAMETER	ENTER	PARAMETER	ENTER	
				BANK ↓/L8		
				BANK ↑/STORE		

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

BK-CP	→	①FROM	→	②TO	→	DONE
	ENTER	PARAMETER	ENTER	PARAMETER	ENTER	
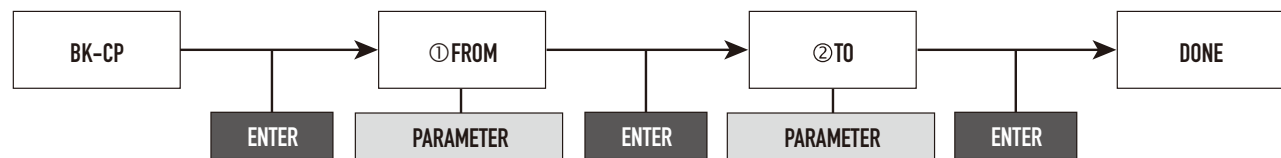
① Turn the **PARAMETER** encoder to select the copy source setlist.

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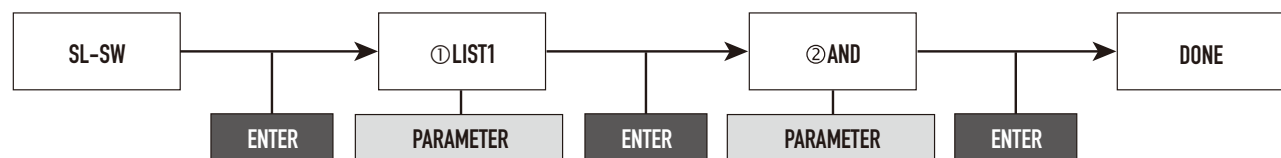
Parameter: LIST1 to LIST9 (default = LIST1)

> **NOTE**
> The desitination setlists will be overwritten.

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

SL-DL	→	①LIST1	→	DONE
	ENTER	PARAMETER	ENTER	
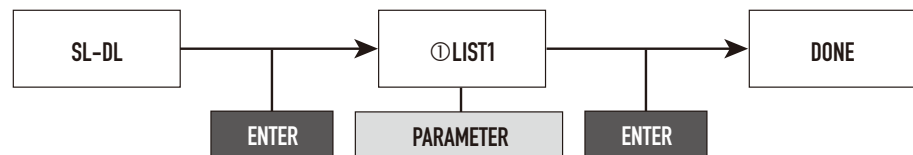
① Turn the **PARAMETER** encoder to select the setlist to be deleted.

Parameter: LIST1 to LIST9 (default = LIST1)

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

| SL-SW	→	①LIST1	→	②AND	→	DONE
	ENTER	PARAMETER	ENTER	PARAMETER	ENTER	

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

RX-CH	→	①OMNI	→	RX-CH
	ENTER	PARAMETER	ENTER	
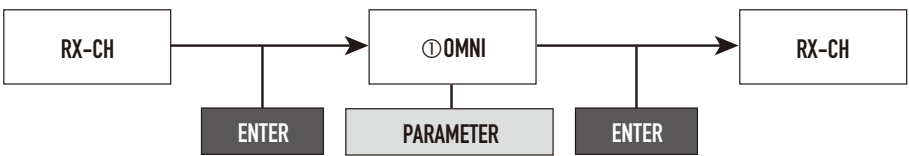
① Turn the **PARAMETER** encoder to select the MIDI receive channel. This sets the MIDI channel (CH1–16, OMNI, OFF) received by the ARC-4.

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
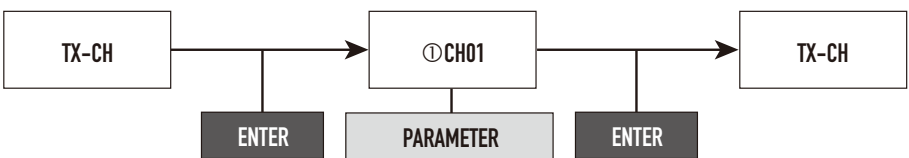
TX-CH	→	①CH01	→	TX-CH
	ENTER	PARAMETER	ENTER	

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
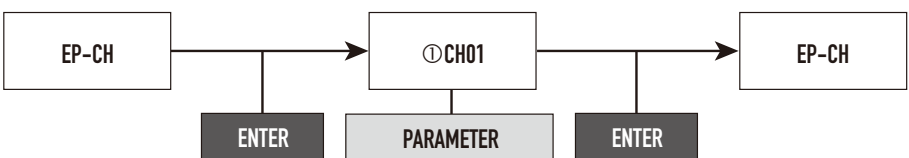
EP-CH	→	①CH01	→	EP-CH
	ENTER	PARAMETER	ENTER	

① Turn the **PARAMETER** encoder to select the desired MIDI transmit channel.

Parameter: CH01 to CH16, OFF (default = CH01)

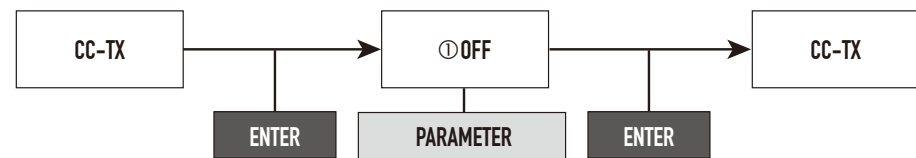### Setting MIDI Control Change Number to Each Function (CC-NM): ON/OFF switch 4

CC-NM	→	①LOOP1	→	②OFF	→	LOOP1
	ENTER	PARAMETER	ENTER	PARAMETER	ENTER	
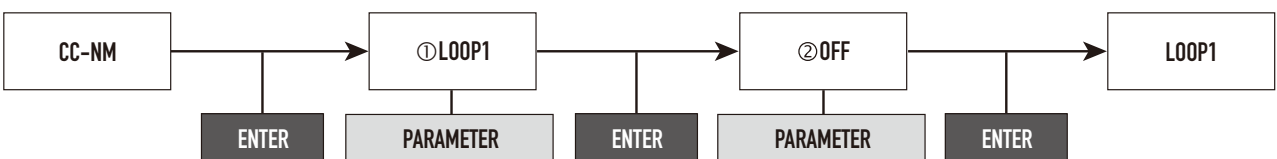
① Turn the **PARAMETER** encoder to select the function to which you want to set the MIDI control change number.

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
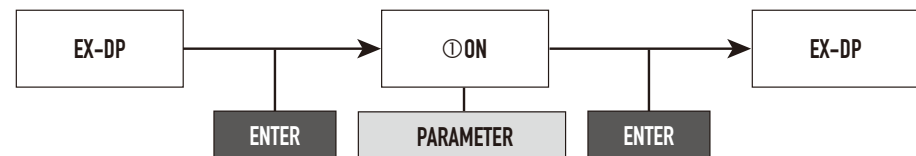
```
CC-TX  →  ①OFF  →  CC-TX
        ENTER   PARAMETER   ENTER
```

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

```
EX-DP  →  ①ON  →  EX-DP
        ENTER   PARAMETER   ENTER
```

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

```
OT/TH  →  ①OUT  →  OT/TH
        ENTER   PARAMETER   ENTER
```
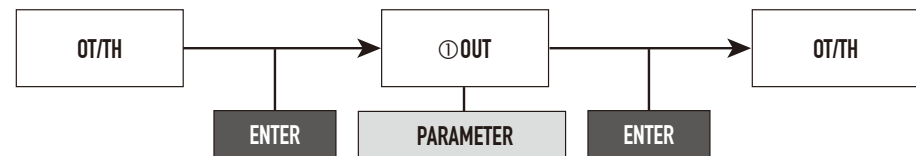
① Turn the **PARAMETER** encoder to select the terminal's function.

   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

```
ST-NM  →  ①001  →  ST-NM
        ENTER   PARAMETER   ENTER
```
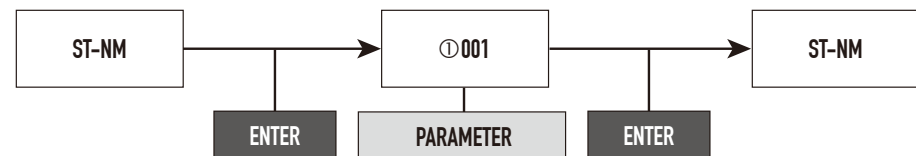
① Turn the **PARAMETER** encoder to select the desired start number.

   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

```
CS-CC  →  ①CSW1  →  ②OFF  →  ③CH01  →  CSW1
        ENTER  PARAMETER  ENTER  PARAMETER  ENTER  PARAMETER  ENTER
```
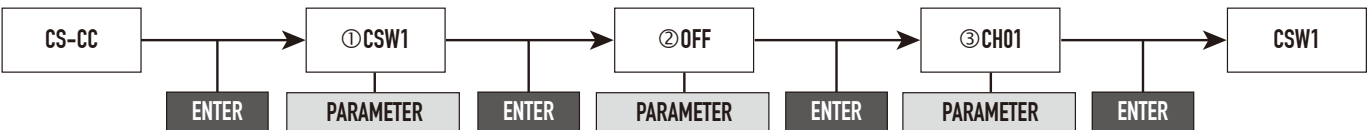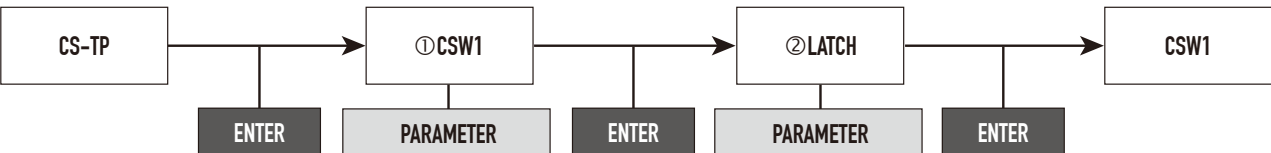
① Turn the **PARAMETER** encoder to select the **CSW** switch to which you want to enter the data.
② Turn the **PARAMETER** encoder to select the MIDI control change number to be sent.
③ Turn the **PARAMETER** encoder to select the MIDI channel to which the MIDI control change number will be sent.

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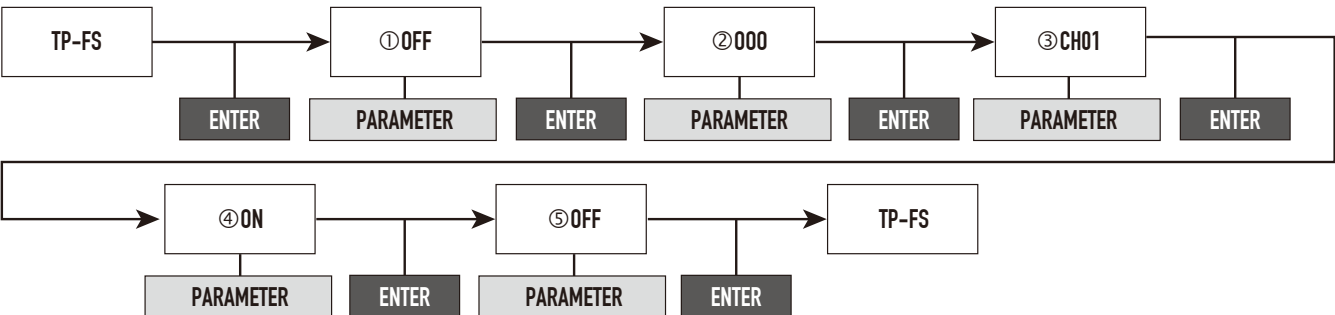
Setting Operation Type of CSW Switch (CS-TP): ON/OFF switch 2

```
CS-TP  →  ①CSW1  →  ②LATCH  →  CSW1
        ENTER  PARAMETER  ENTER  PARAMETER  ENTER
```

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

```
TP-FS  →  ①OFF  →  ②000  →  ③CH01
        ENTER  PARAMETER  ENTER  PARAMETER  ENTER  PARAMETER  ENTER

       →  ④ON  →  ⑤OFF  →  TP-FS
        PARAMETER  ENTER  PARAMETER  ENTER
```

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

MD-CK → ①THRU → MD-CK
[ENTER] [PARAMETER] [ENTER]
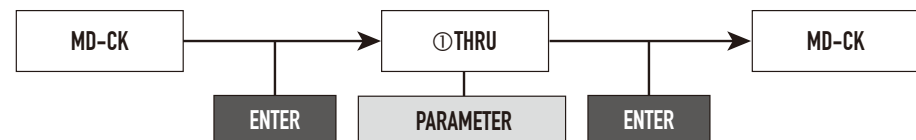
① Turn the **PARAMETER** encoder to select the desired operation type.

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

TP-DT → ①OFF → TP-DT
[ENTER] [PARAMETER] [ENTER]
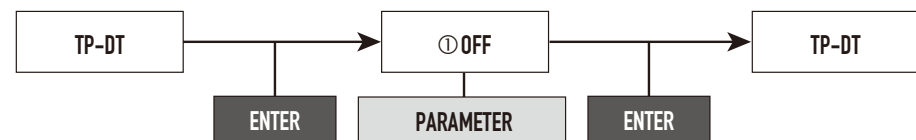
① Turn the **PARAMETER** encoder to select ON or OFF.

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 supprting 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

LK-MD → ①NORMAL → LK-MD
[ENTER] [PARAMETER] [ENTER]
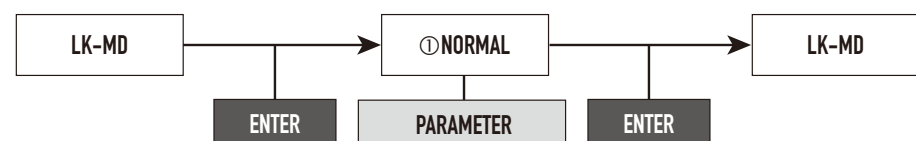
① Turn the **PARAMETER** encoder to select the desired operation mode.

• In NORMAL mode, the preset numbers on the two unites 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

OP-MD → ①BANK → OP-MD
[ENTER] [PARAMETER] [ENTER]
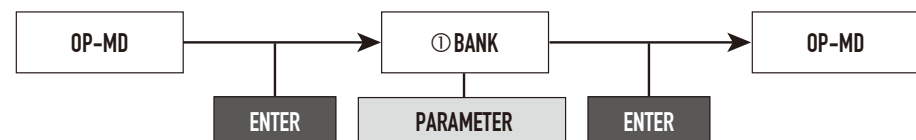
① Turn the **PARAMETER** encoder to select the desired operation mode.

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

FS-AS → ①E1 → ②PS8 → ③LATCH → E1
[ENTER] [PARAMETER] [ENTER] [PARAMETER] [ENTER] [ENTER]
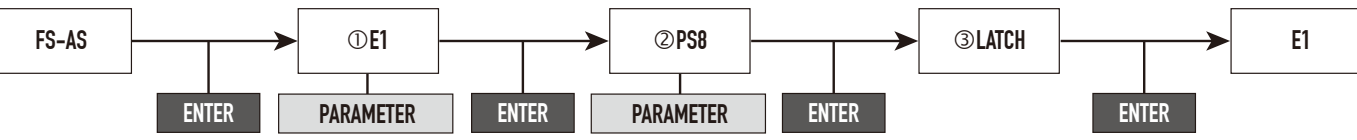
① Turn the **PARAMETER** encoder to select the desired footswitch.
② Turn the **PARAMETER** encoder to select the desired function.

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

RL-CT → ①CTL1 → ②LATCH → CTL1
[ENTER] [PARAMETER] [ENTER] [PARAMETER] [ENTER]

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)
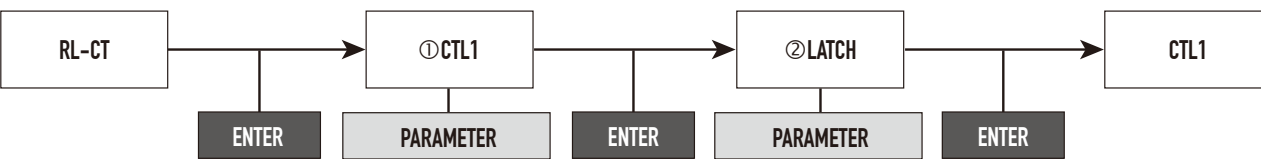MOMENTARY1 (MOM1): The contact closes for 100 ms only when CONTROL is turned on to execute a momentary operation. Use this mode to control an amplifier channel that supports momentary switching.
MOMENTARY2 (MOM2): The contact closes for 100 ms when CONTROL is turned on and off to execute a momentary 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

MT-MD → ①AUTO → MT-MD
[ENTER] [PARAMETER] [ENTER]
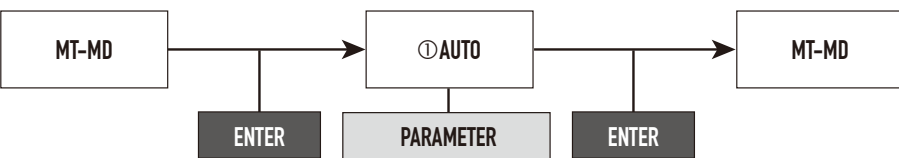
① Turn the **PARAMETER** encoder to select the desired operation type.

• 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

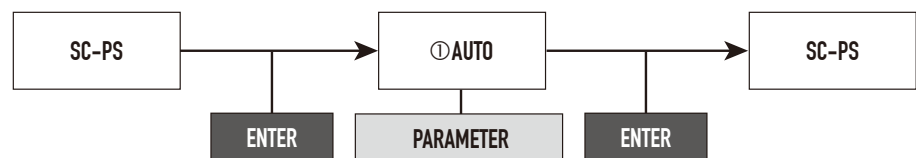| MT-PT	→	①MUTE-A	→	②ON	→	MUTE1
	ENTER	PARAMETER	ENTER	PARAMETER	ENTER	
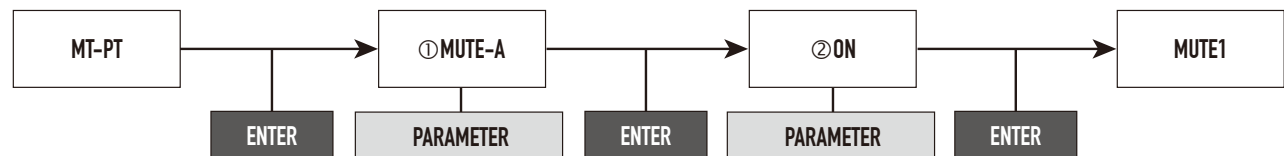
① Turn the **PARAMETER** encoder to select the desired mute circuit.

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
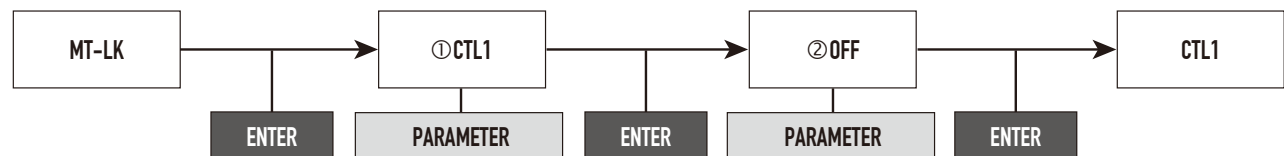
MT-LK	→	①CTL1	→	②OFF	→	CTL1
	ENTER	PARAMETER	ENTER	PARAMETER	ENTER	

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

| SC-PS	→	①AUTO	→	SC-PS
	ENTER	PARAMETER	ENTER	

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

AT-LC	→	①OFF	→	AT-LC
	ENTER	PARAMETER	ENTER	
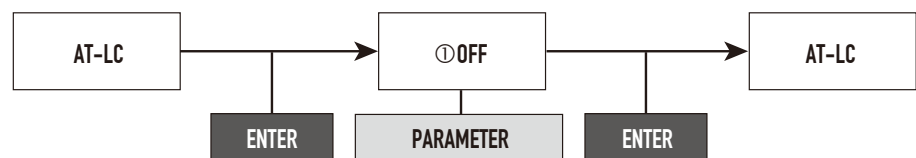
① Turn the **PARAMETER** encoder to select ON or OFF.

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 (MM-PR): ON/OFF switch 2

MR-PR	→	①OFF	→	MR-PR
	ENTER	PARAMETER	ENTER	
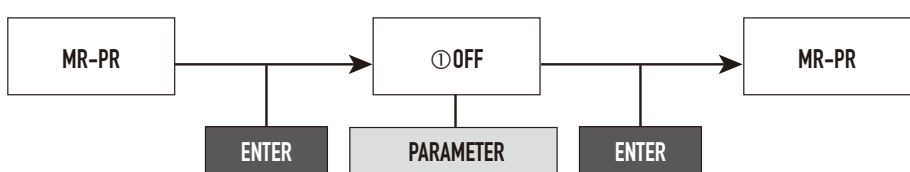
① Turn the **PARAMETER** encoder to select ON or OFF.

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

LD-BR	→	①MID	→	LD-BR
	ENTER	PARAMETER	ENTER	
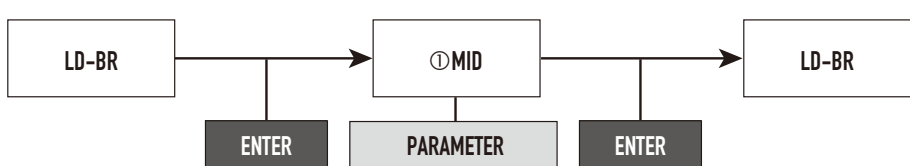
① Turn the **PARAMETER** encoder to adjust the LED brightness.

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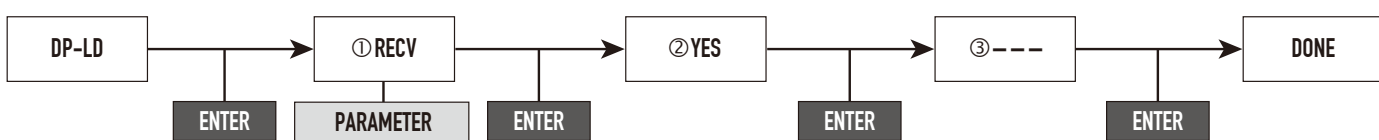
Setting Expression Pedal's Calibration (EP-CB): ON/OFF switch 4

EP-CB	→	①HIGH	→	②LOW	→	DONE
	ENTER	EX.PEDAL	ENTER	EX.PEDAL	ENTER	
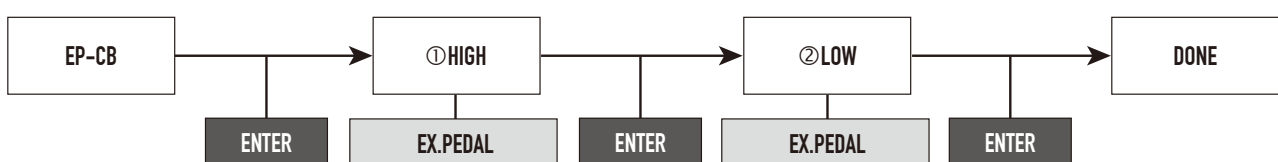
The expression pedal connected to the **EXT** terminal is calibrated in this configuration mode. By execituting this process, you can control from the minimum to maximum values precisely. Be sure to use an expression pedal with variable resistance from 10kΩ to 25kΩ.

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

DP-LD	→	①RECV	→	②YES	→	③---	→	DONE
	ENTER	PARAMETER	ENTER		ENTER		ENTER	

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**."

DP-LD	→	①RECV	→	②YES	→	③ 001	→	DONE
		ENTER		ENTER				ENTER
		PARAMETER		PARAMETER		ENTER		

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

INITI	→	①YES	→	②WAIT	→	③DONE	→	INITI
		ENTER		ENTER				
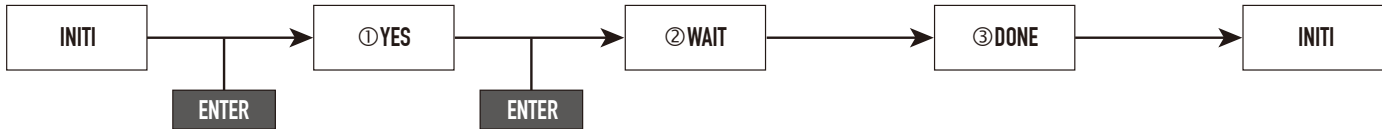
① Press the **ENTER** switch when "**YES**" is shown.

② When the process is in progress, "**WAIT**" is shown.

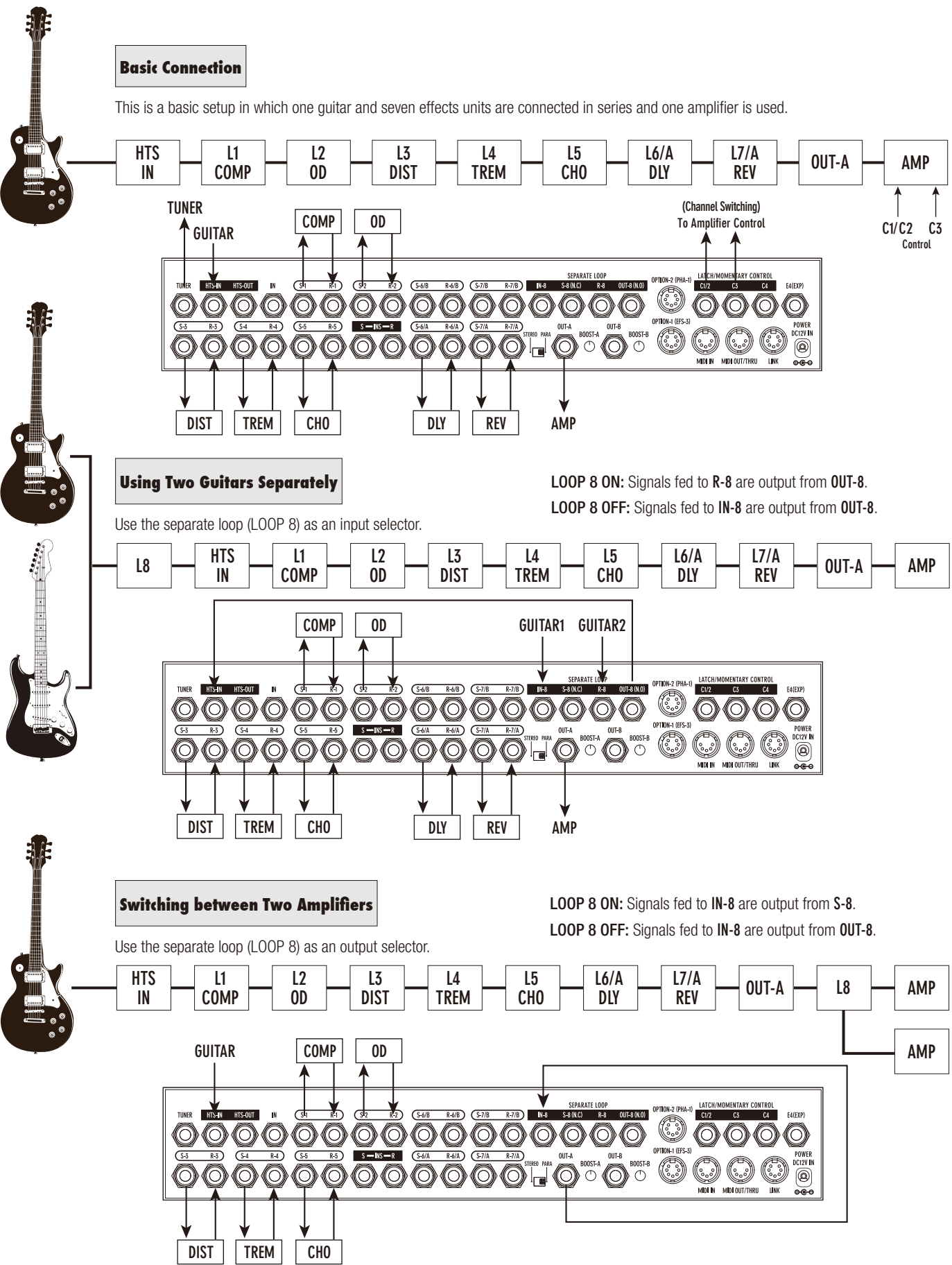③ When the **Display-1** shows "**DONE**," the process is completed and all of the stored data is lost.

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

FW-UD	→	①YES	→	− − −	→	DONE	→	FW-UD
		ENTER		ENTER				
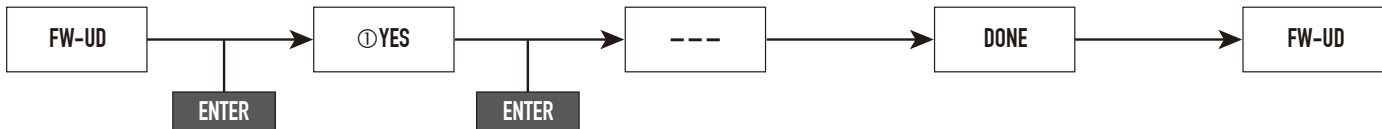
The ARC-4 can update its firmware via MIDI. For the latest firmware or connection and setup procedures, please confirm with the product or support page of the Free The Tone website.

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

LOOP 8 ON: Signals fed to **R-8** are output from **OUT-8**.

LOOP 8 OFF: Signals fed to **IN-8** are output from **OUT-8**.

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

Switching between Two Amplifiers

LOOP 8 ON: Signals fed to **IN-8** are output from **S-8**.

LOOP 8 OFF: Signals fed to **IN-8** are output from **OUT-8**.

Use the separate loop (LOOP 8) as an output selector.
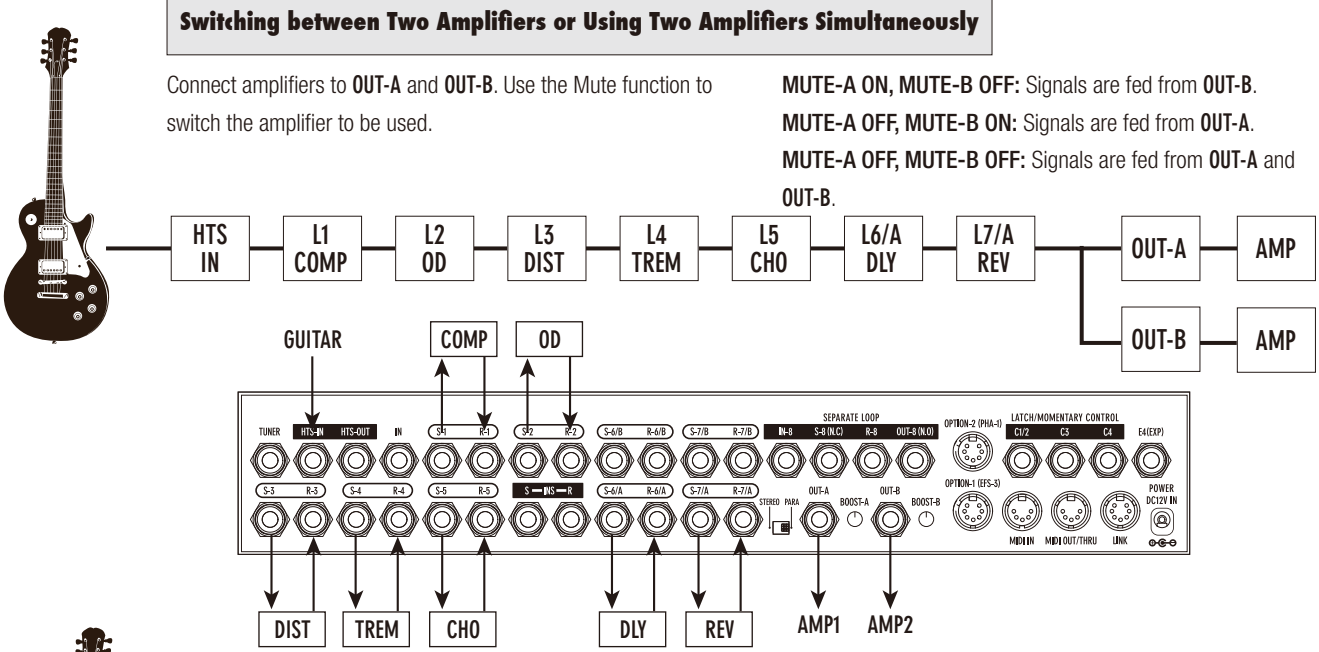
## Switching between Two Amplifiers or Using Two Amplifiers Simultaneously

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**.
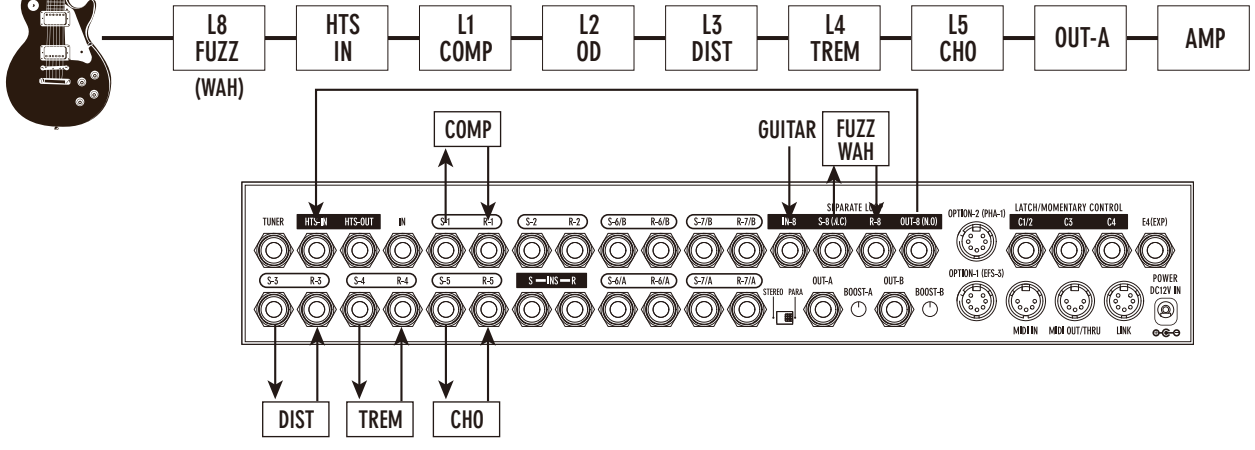

Leaving Delay Sound when MUTE Switch is Pressed

Connect the separate loop (LOOP 8) to **OUT-B** (after the Mute function).
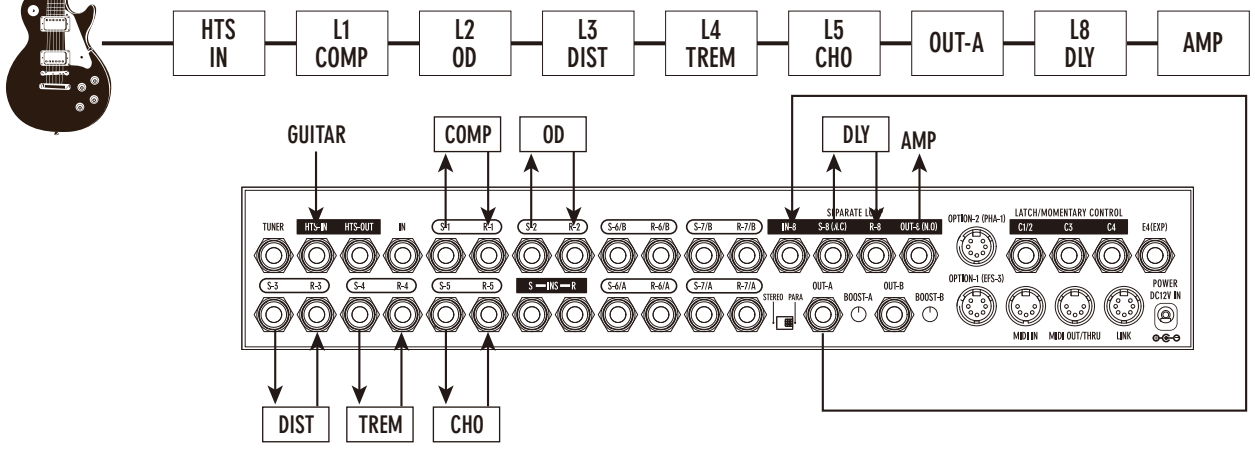
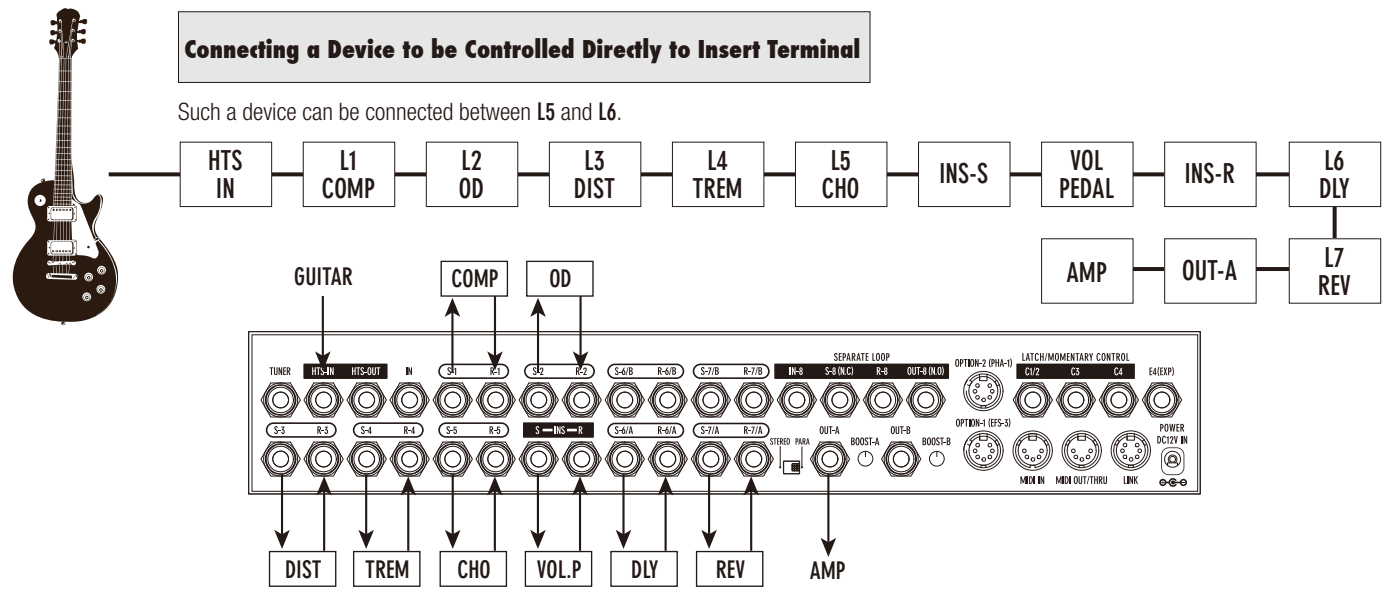## Connecting a Fuzz or Wah-wah Pedal

Same 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.
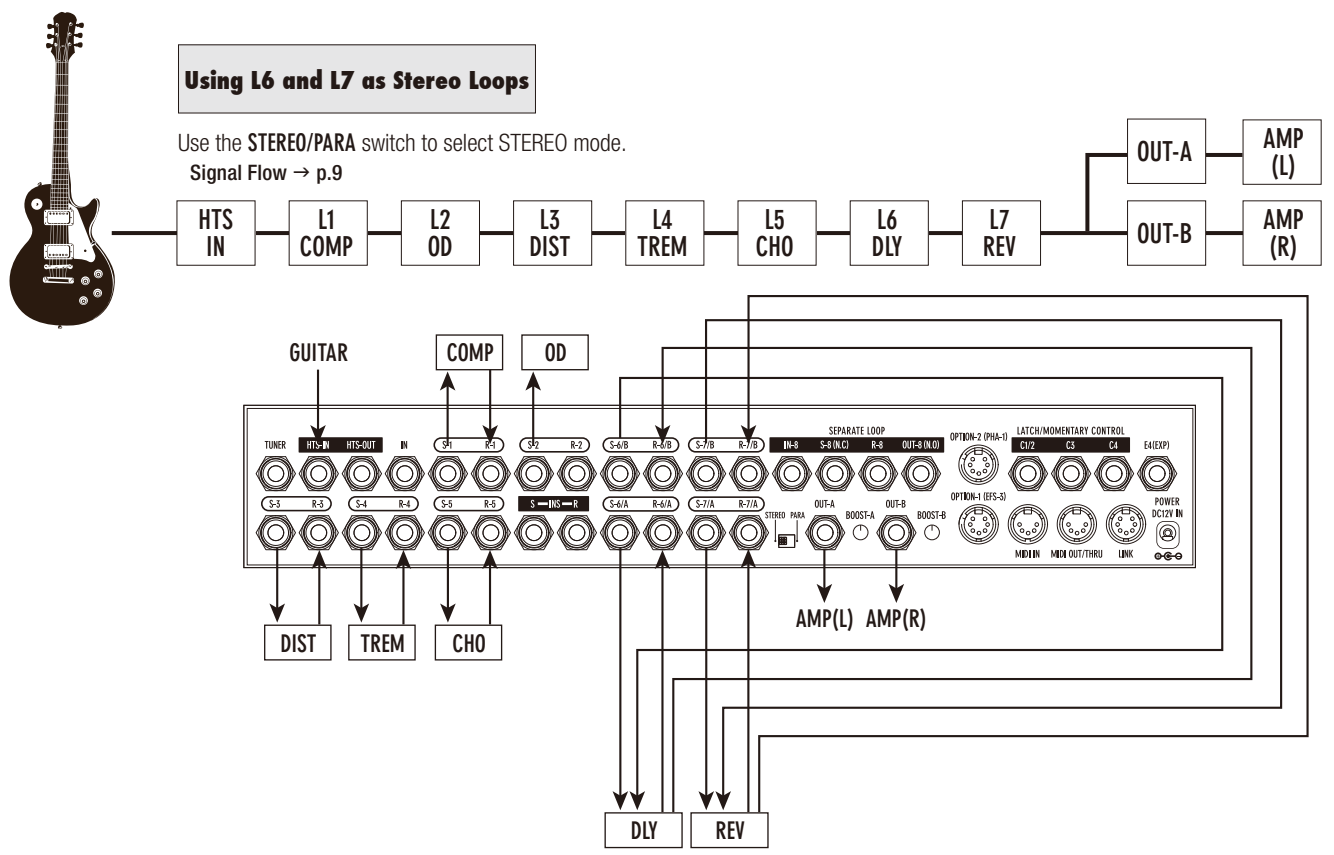

Connecting a Device to be Controlled Directly to Insert Terminal

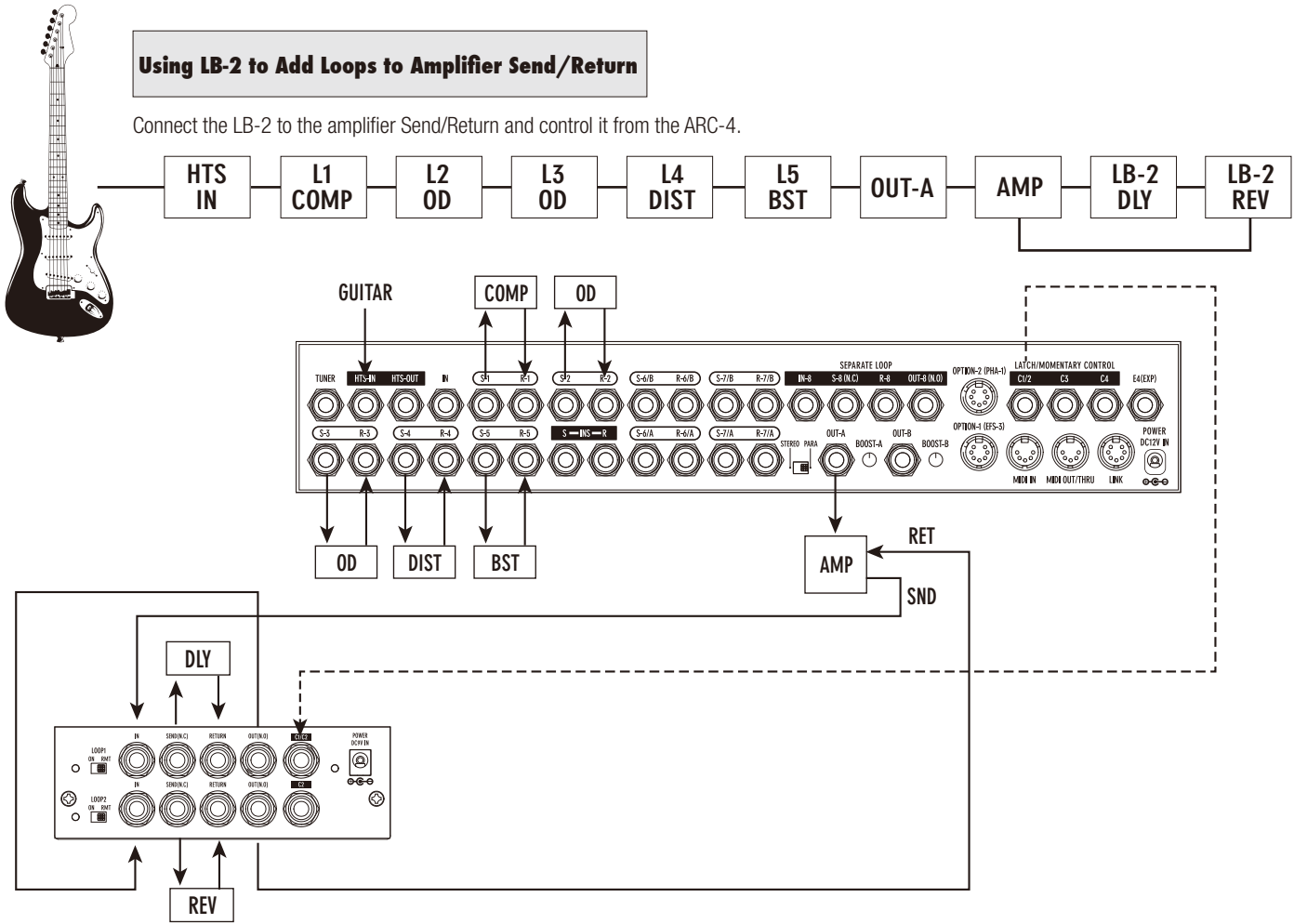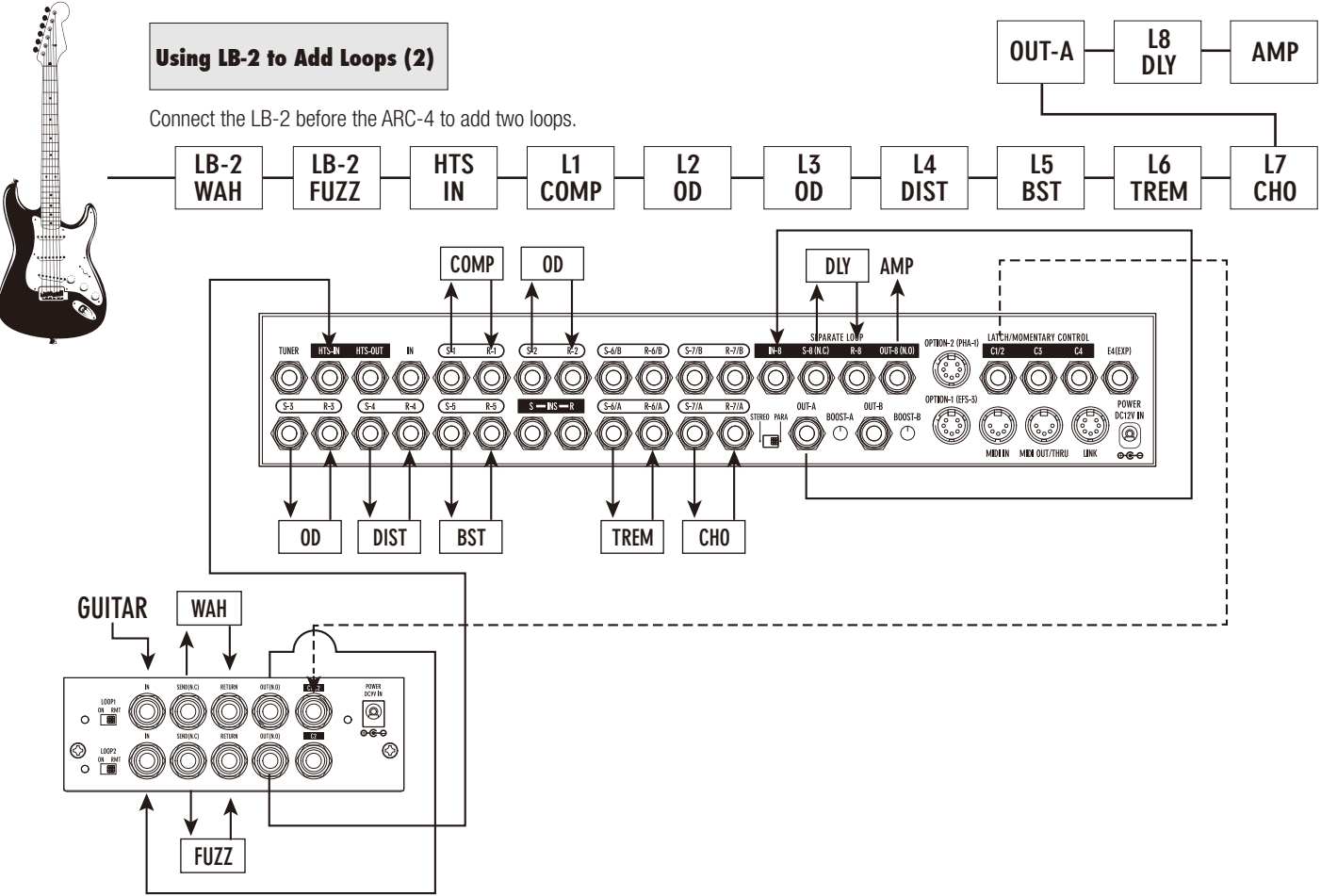Such a device can be connected between **L5** and **L6**.

Using L6 and L7 as Stereo Loops
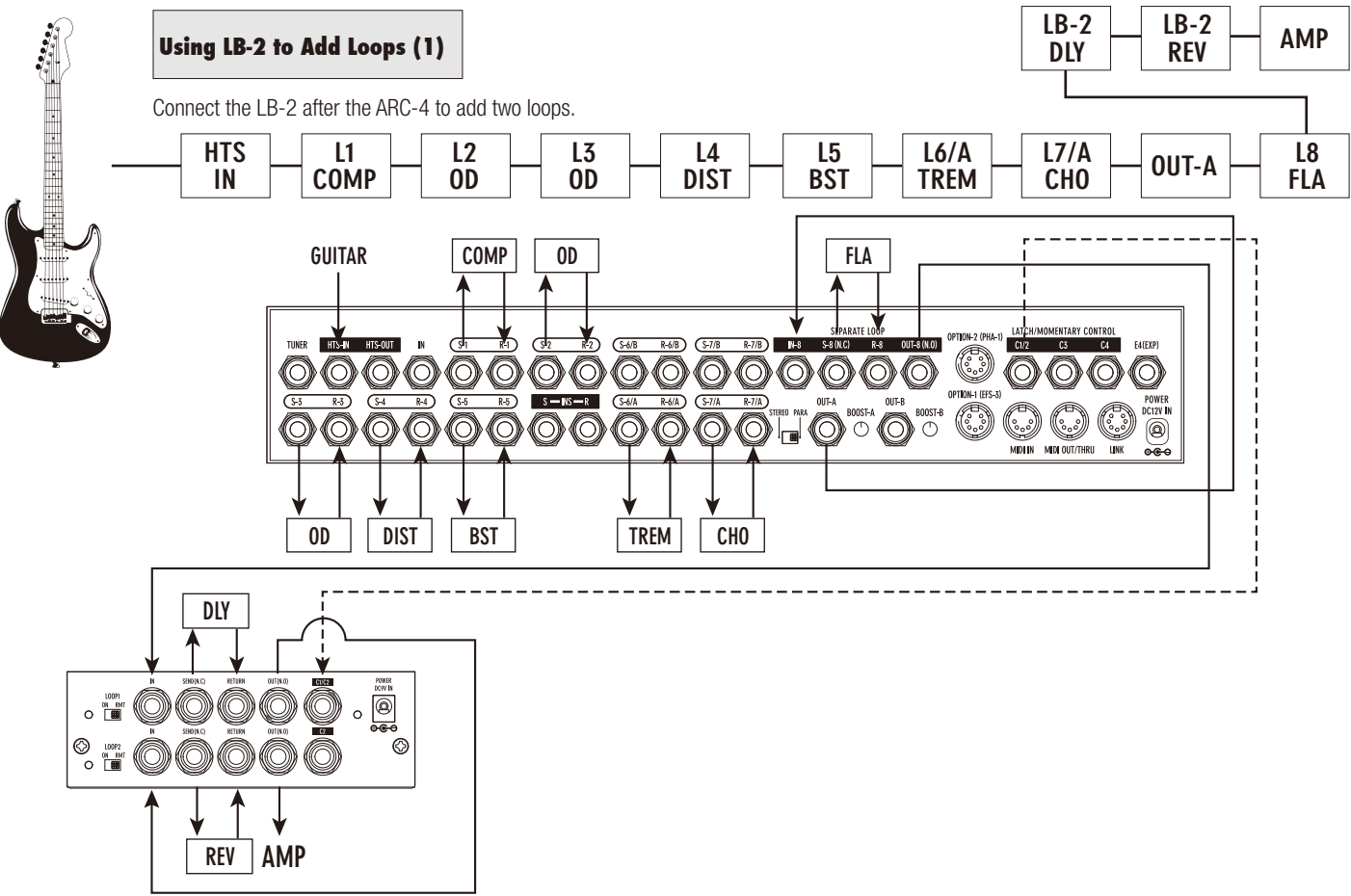
Use the **STEREO/PARA** switch to select STEREO mode.
Signal Flow → p.9

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.

Using LB-2 to Add Loops (1)

Connect the LB-2 after the ARC-4 to add two loops.

LB-2 DLY → LB-2 REV → AMP

HTS IN | L1 COMP | L2 OD | L3 OD | L4 DIST | L5 BST | L6/A TREM | L7/A CHO | OUT-A | L8 FLA

GUITAR · COMP · OD · FLA

OD · DIST · BST · TREM · CHO

DLY

REV · AMP

Using LB-2 to Add Loops (2)

Connect the LB-2 before the ARC-4 to add two loops.

OUT-A → L8 DLY → AMP

LB-2 WAH | LB-2 FUZZ | HTS IN | L1 COMP | L2 OD | L3 OD | L4 DIST | L5 BST | L6 TREM | L7 CHO

COMP · OD · DLY · AMP

OD · DIST · BST · TREM · CHO

GUITAR · WAH

FUZZ

Using LB-2 to Add Loops to Amplifier Send/Return

Connect the LB-2 to the amplifier Send/Return and control it from the ARC-4.

HTS IN | L1 COMP | L2 OD | L3 OD | L4 DIST | L5 BST | OUT-A | AMP | LB-2 DLY | LB-2 REV

GUITAR · COMP · OD

OD · DIST · BST · AMP · RET · SND

DLY

REV

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.

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

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

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

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

⚠ Caution	⚠ Warning
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.	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**