Pioneer

Operation Manual for Tuning Application

DSP Controller

Contents

Beginning Screen

Connect DSP-AMP device at Beginning Screen

① **Select a certain product number**

② **Tap to open Main Screen**

＊Possible to open Demo Mode if any DSP-AMP is not found

Screen Configuration

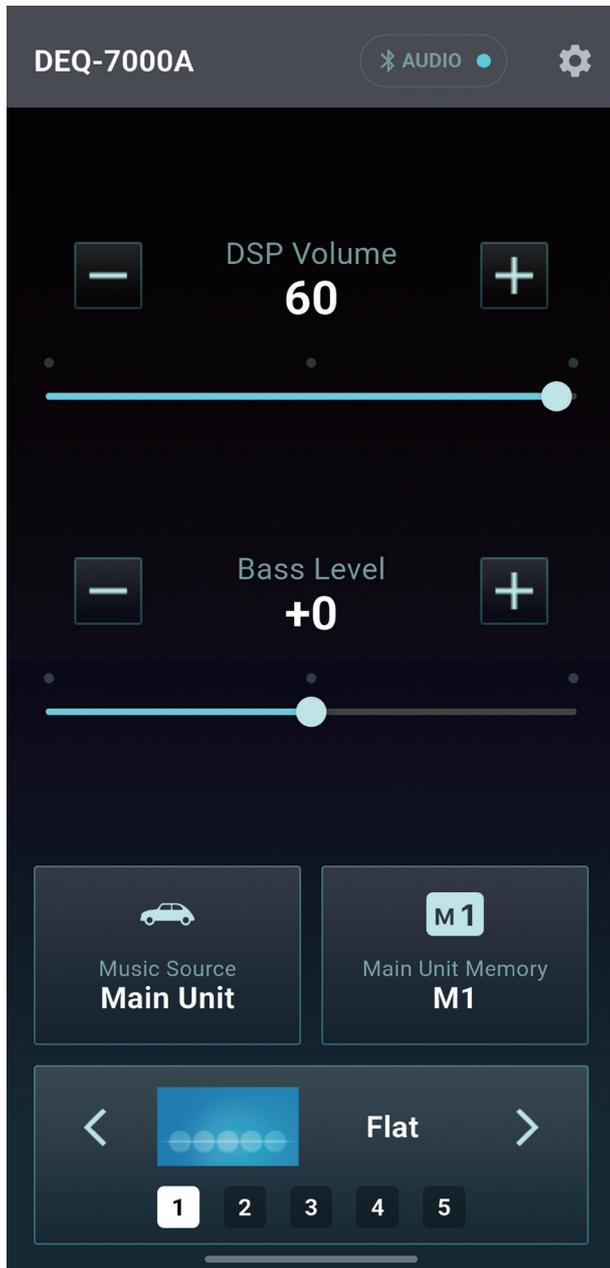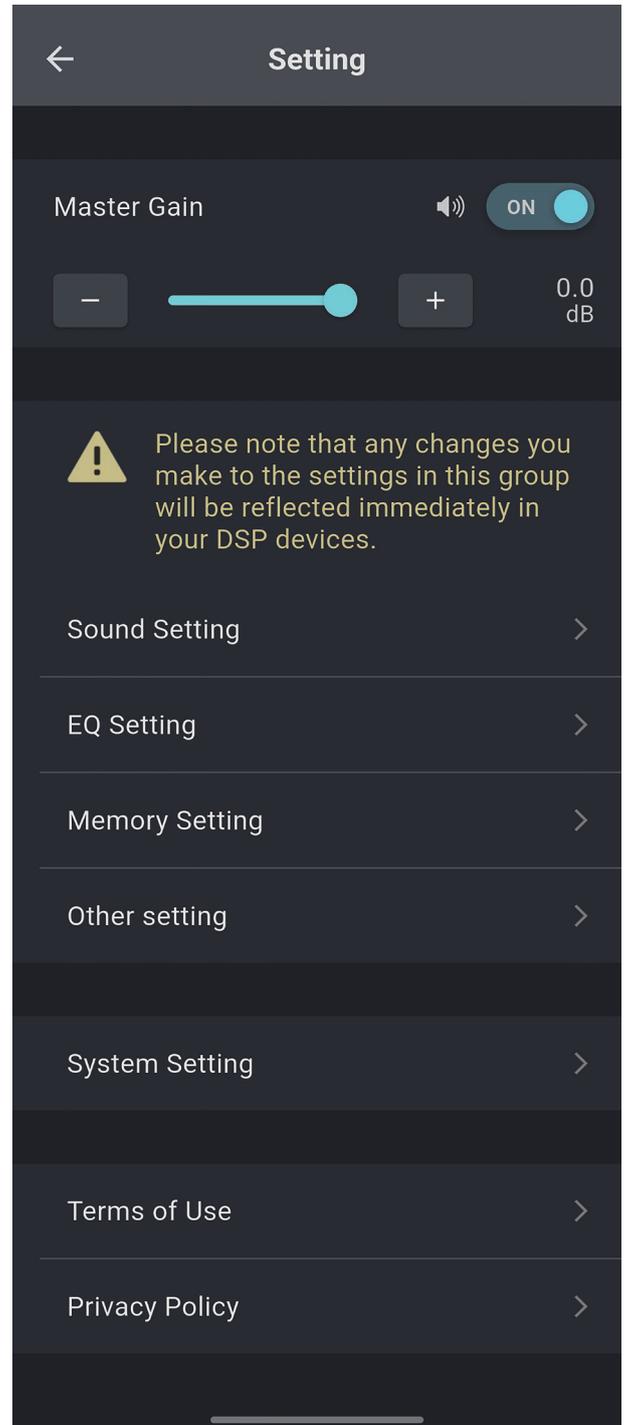| DEQ-7000A | ☆ AUDIO ● | ⚙ |

DSP Volume
60

Bass Level
+0

| 🚗 Music Source **Main Unit** | M1 Main Unit Memory **M1** |

| ‹ | Flat | › |
| 1 | 2 | 3 | 4 | 5 |

【Main】

← **Setting**

Master Gain 🔊 **ON** ⬤

− ━━━━━ + **0.0 dB**

⚠ Please note that any changes you make to the settings in this group will be reflected immediately in your DSP devices.

| Sound Setting | › |
EQ Setting	›
Memory Setting	›
Other setting	›
System Setting	›
Terms of Use	›
Privacy Policy	›

【Setting】

Possible to control basic function like remote controller at Main screen.

Adjust some audio effect in detail at Setting.

Tap the gear mark on right upper to open setting view.

Handle with Care
・Do not control this application while driving
・Require a car-audio expertise to maximumly use an adjustment function
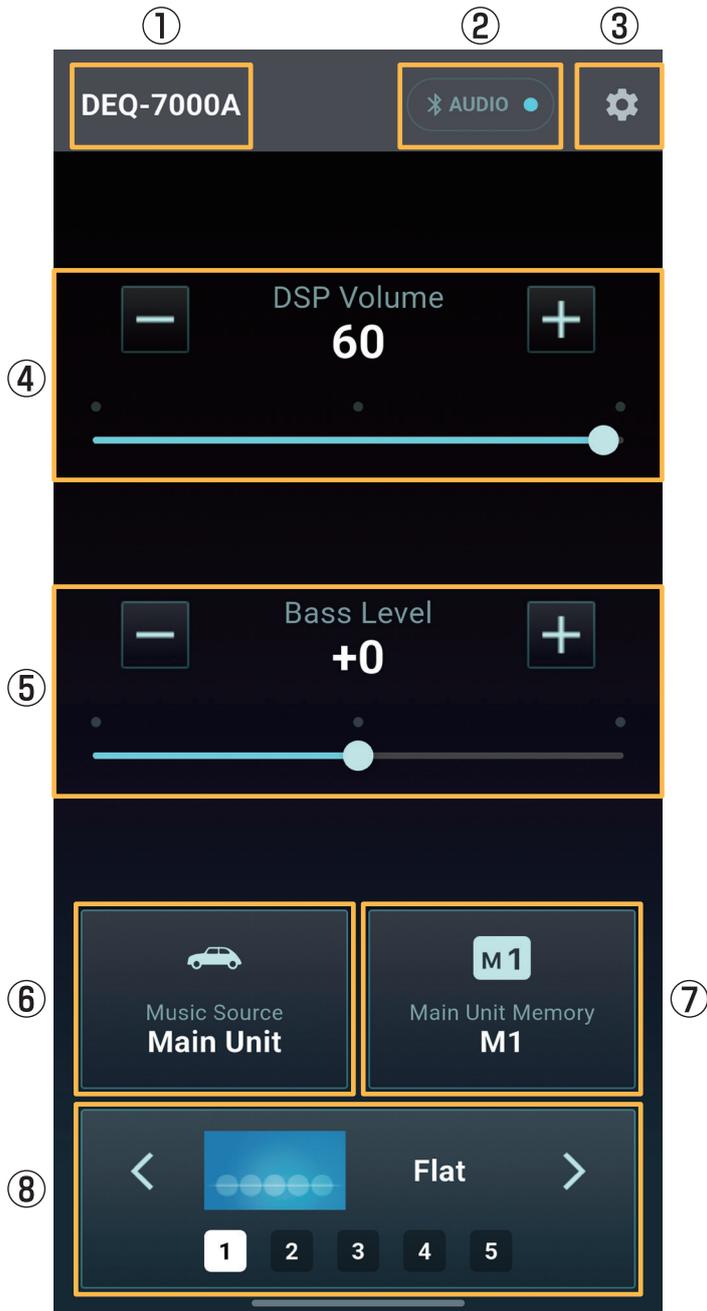
Main

【Main】

① **View Connected Device**
   Show a device what connected

② **Pairing for Bluetooth Audio**
   Connection Button for pairing with DSP-AMP device
   and Bluetooth Audio Device

③ **Tap to open Setting** *1
   Move to Setting screen for an audio effect adjustment

④ **DSP Volume**
   Adjust volume of DSP source *2 what inputted
   （0 to 62）

⑤ **Bass Level**
   Adjust each Bass Level of certain CH what assigned *4
   （−8 to ＋8）

⑥ **Music Source**
   Select an enabled Music Source at Music Source
   Setting in Device Setting

⑦ **Memory**
   Select certain memory what saved

⑧ **Preset EQ**
   Select and Add sound effect
   ［Flat, S.Bass, Powerful, Vocal, Natural］
   Possible to adjust 5 stages level

＊1 Possible to use Setting Screen while parking brake enables
     Please check Owner's Manual about parking brake wiring
＊2 DSP Source stands for outer source such as Bluetooth, USB Audio, SPDIF, RCA *3 by excluding Main Unit
＊3 RCA can enable when Speaker Input is selected at Main Unit Selection in Device Setting
＊4 DEQ-7000A assigns CH9 and CH10 for subwoofer, DEQ-2000A is CH5 and CH6
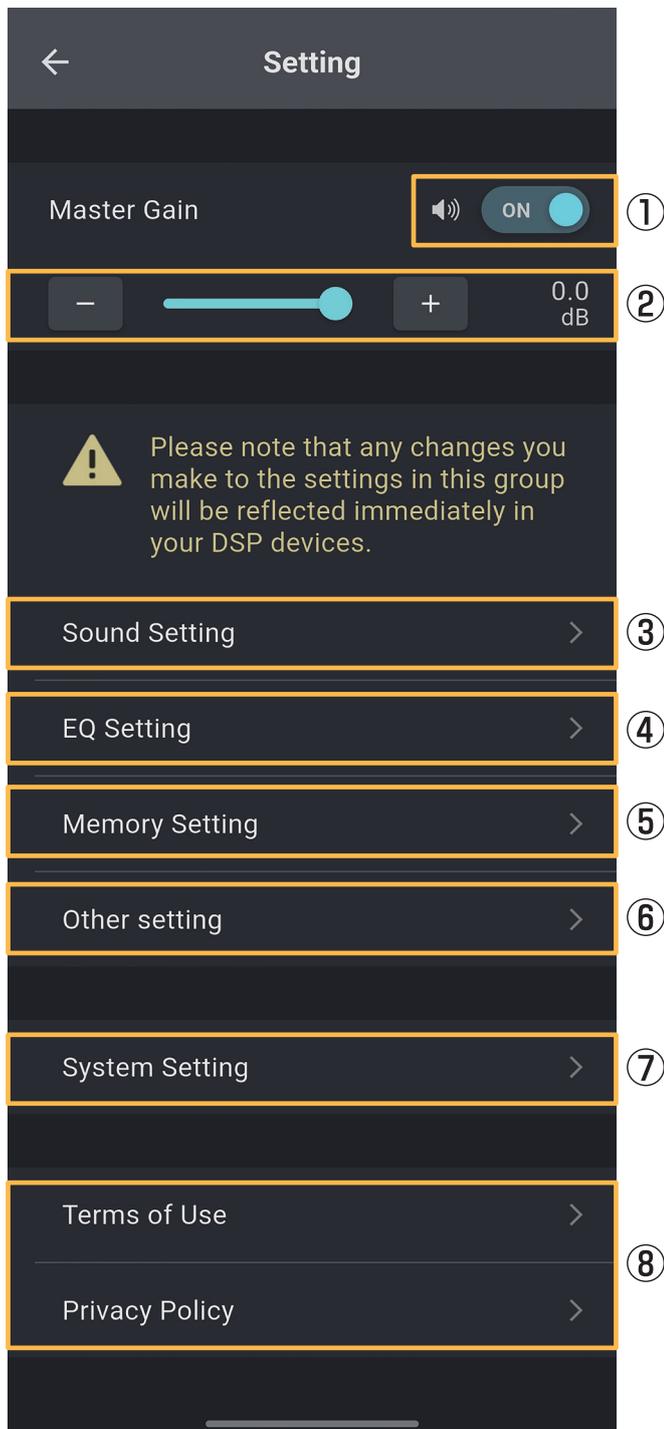
Setting

【Setting】

① **Master Gain ON/OFF Button**
Possible to select Mute at Master Gain
（overall gain including Main Unit）

② **Master Gain Adjust slider and button**
Adjust Master Gain level

③ **Sound Adjustment**
Tap to open the screen for each sound setting

④ **EQ**
Tap to open the screen for EQ adjustment

⑤ **Memory**
Tap to open Memory function screen to memorize
a setting for each devices

⑥ **Other Setting**
Tap to open the screen for source level adjustment
and Navi-Mix Setting

⑦ **System**
Tap to open a screen for language selection,
Save Device Setting, and Firmware update

⑧ **Term of Use/Privacy Policy**
Check Term of Use and Privacy Policy

Sound Adjustment

【Sound Adjustment】
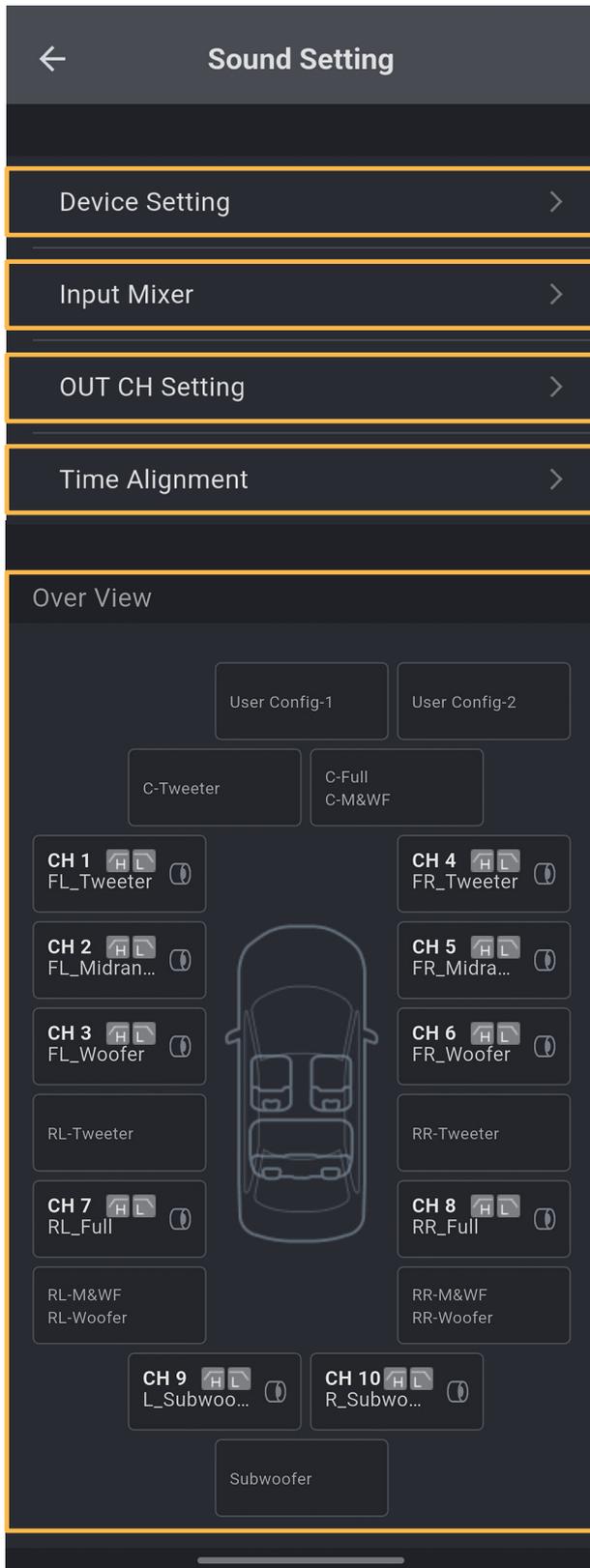
① **Device Setting**
  Select Main Unit signal and Set enable/disable of each DSP source

② **Mixer Setting**
  Set each input mixing against each output channels

③ **Channel Setting**
  Control Speaker Selection, Gain, and Crossover for each channels

④ **Time Alignment**
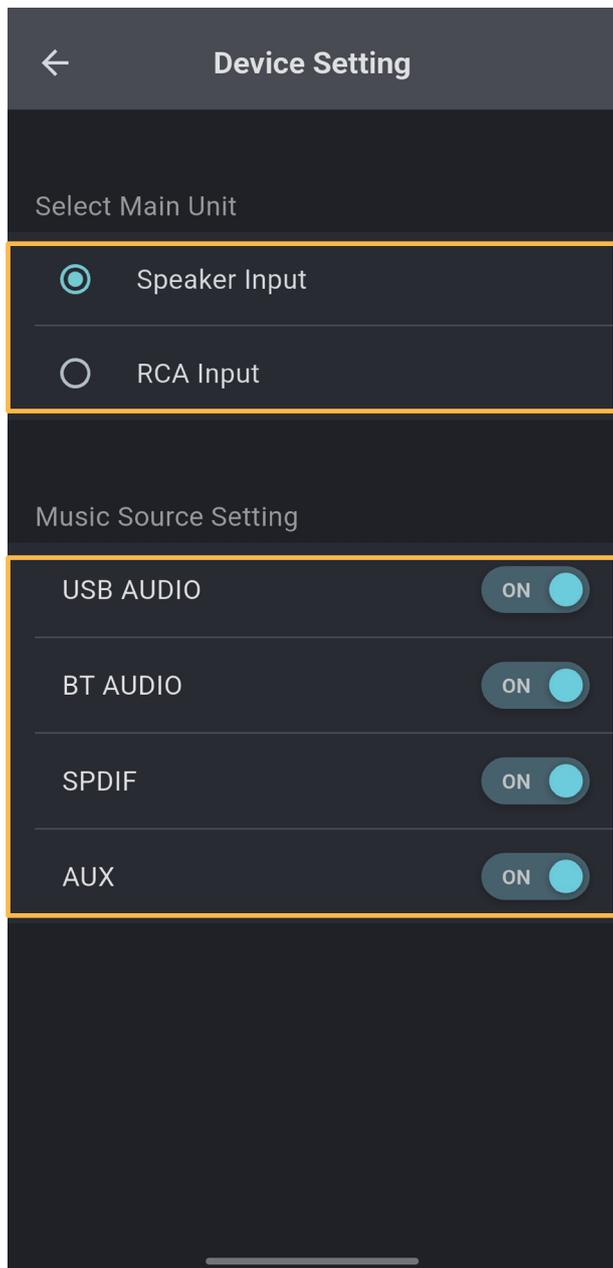 Adjust a time alignment (delay unit) for each channels

⑤ **Overview**
  Check each channel conditions for Speaker Selection and Crossover such as HPF/LPF

Device Setting

【Device Setting】

① **Main Unit Select**
Select Main Unit signal as Input method

② **DSP Source Setting**
Select enable/disable for each DSP source

＊The "OFF" selected Music Source doesn't show that source on Music Source Select

＊The "OFF" selected Music Source is skipped when selecting Music Source at DEQ-7000A remote controller

＊RCA input terminal (CH1, CH2) can be used to AUX what is external analog input if select "Speaker Input" at Main unit Select
In this case, the RCA input terminals (CH3, CH4) will be disabled
If select "RCA Input", AUX can not be used

Mixer Setting
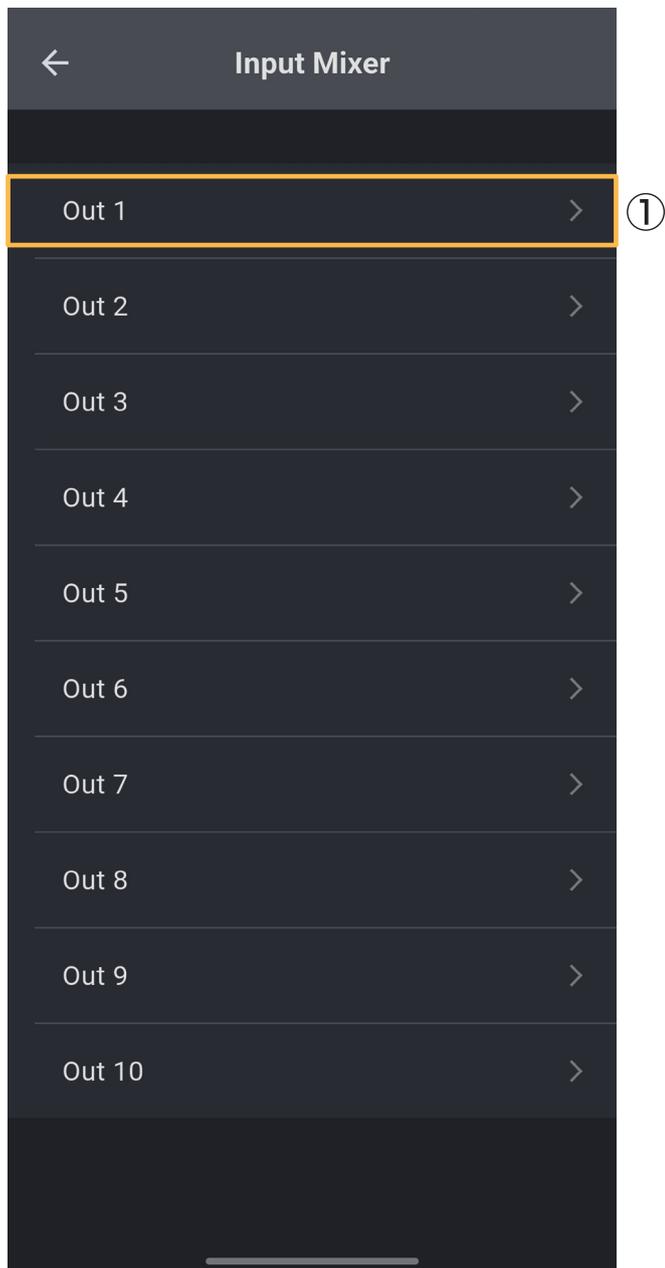
【Setting】

① **Setting for each Output**
Select a method of Main Unit signal

② **Main Unit signal for Input**
Select an assigned Input Channel

③ **Mixer Level adjustment (Main Unit)**
Adjust a Mixer level of assigned input signal
Range：0 to 100

④ **DSP Source signal for Input**
Select an assigned Input Channel

⑤ **Mixer Level adjustment (DSP Source)**
Adjust a Mixer level of assigned input signal
Range：0 to 100
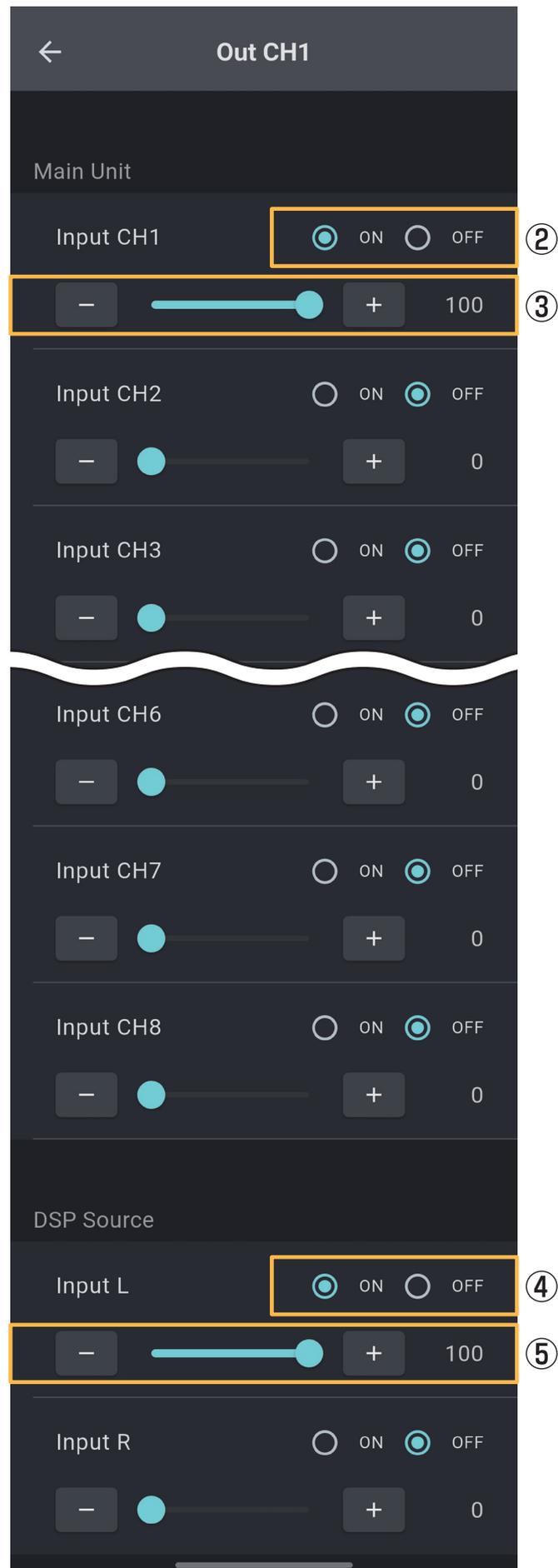
【Setting for each Output 】

Channel Setting
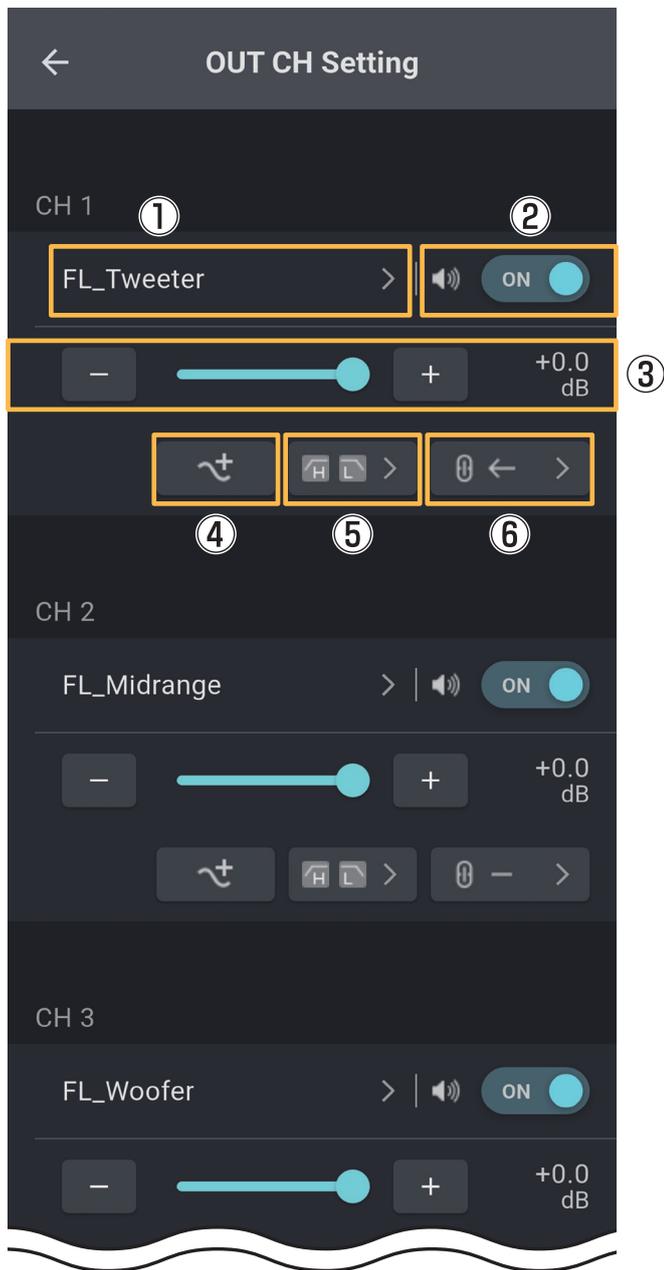
【Channel Setting】

① **Speaker Select**
   Select the speaker kinds for each Output Channel

② **Enable/Disable Output**
   Select enable/disable for each Output Channel

③ **Gain Adjustment**
   Adjust Gain level for each Output Channel
   Range : －60.0 dB to 0.0 dB

④ **Phase/Opposite Phase**
   Select the Phase for each Output Channel

	: Phase		: Opposite

⑤ **Crossover**
   Tap to open a crossover setting for each
   Output Channel

⑥ **Link**
   Synchronize the setting same as other Output Channel
   When Synchronized the setting, EQ setting what linked
   to other CH is copied

	: No Link
	: Linked（example：CH 1）
	: Linked（example：Linked from other CH.）
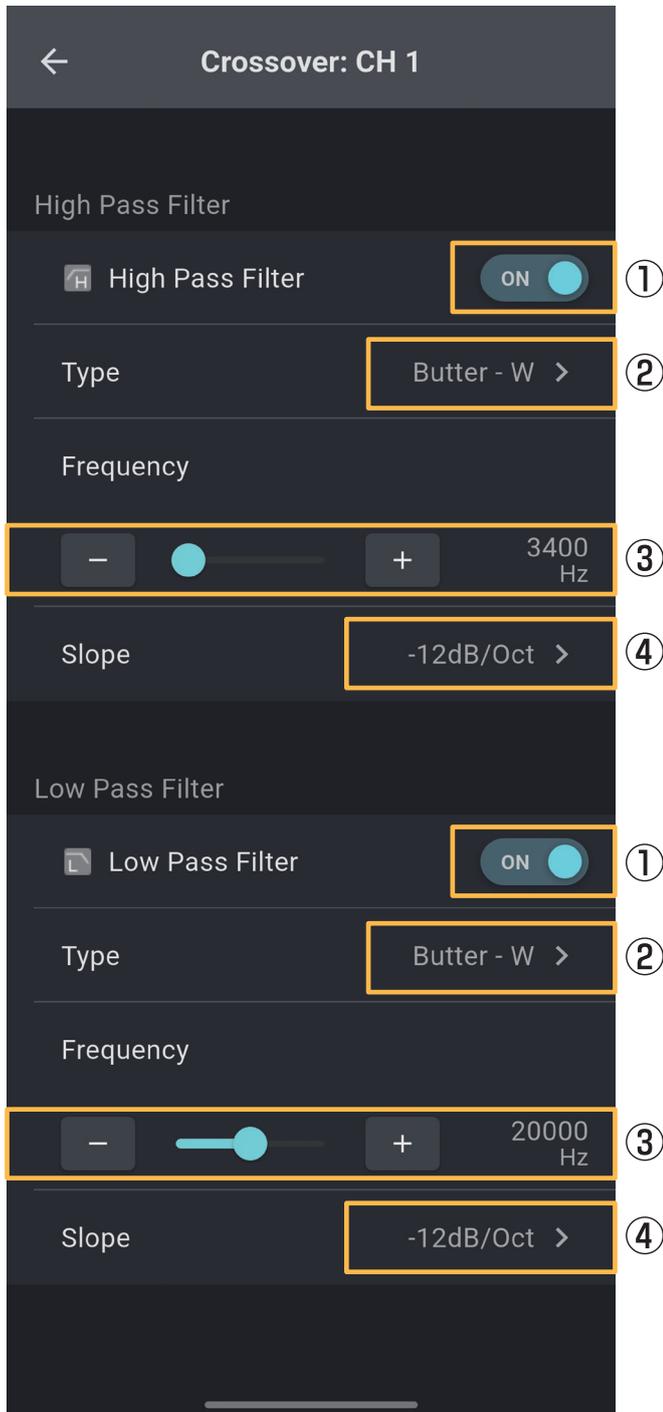
Crossover

【Crossover】

① **High Pass Filter/Low Pass Filter**
Select enable/disable for each filter

② **Type of Filter**
Select a Filter type
Possible to select 3 options below
[Butterworth, Bessel, Linkwitz-Riley]

③ **Cut-off frequency**
Adjust Cut-off frequency
Range：20 Hz to 40 kHz

④ **Slope**
Adjust a Slope of filter
Range：
　Butterworth：[－6, －12, －18, －24, －30, －36,
　　　　　　　－42, －48 dB/Oct]
　Bessel：[－6, －12, －18, －24, －30, －36, －42,
　　　　　－48 dB/Oct]
　Linkwitz-Riley：[－12, －24, －36, －48 dB/Oct]

Time Alignment

○ cm ○ inch ⦿ msec	①
CH 1: FL_Tweeter	② ... 🔗 No Assign ⟩ ③
⊖ ●————————— ⊕ 0.0 msec	④
CH 2: FL_Midrange	🔗 A ⟩
⊖ ●————————— ⊕ 0.0 msec	
CH 3: FL_Woofer	🔗 A ⟩
⊖ ●————————— ⊕ 0.0 msec	
CH 4: FR_Tweeter	🔗 No Assign ⟩
⊖ ●————————— ⊕ 0.0 msec	
CH 5: FR_Midrange	🔗 No Assign ⟩
⊖ ●————————— ⊕ 0.0 msec	
CH 6: FR_Woofer	🔗 No Assign ⟩

【Time Alignment】

① **Unit**
   Select a delay Unit
   [cm, inch, msec]

② **Channel Number/Speaker Select**
   Show the selected Channel Number and
   Speaker kinds

③ **Link**
   Synchronize the setting same as other Output Channel
   When Synchronized the setting, Time Alignment setting
   what linked to Delay group is copied
   Select a delay group by [A, B, C, D, E]

   🔗 — : No Link

   🔗 CH 1 : Linked（example：Group A）

④ **Adjust Delay Unit**
   Range：[0 cm to 680 cm]
         [0 inch to 268 inch]
         [0 msec to 20 msec]

＊Regarding calculation for Delay Unit　＊In case of cm unit
   Measure a distance for each speaker from Listening position, and The farthest speaker becomes
   the reference value. Difference with each speaker and the reference becomes Delay Unit.
      Example：CH1（100 cm）,CH2（50 cm）,CH3（110 cm）,CH4（40 cm）, CH5（180 cm）
            CH5（180 cm）becomes the reference value
            What should be filled in CH1：①180 cm ー ②100 cm = ③80 cm
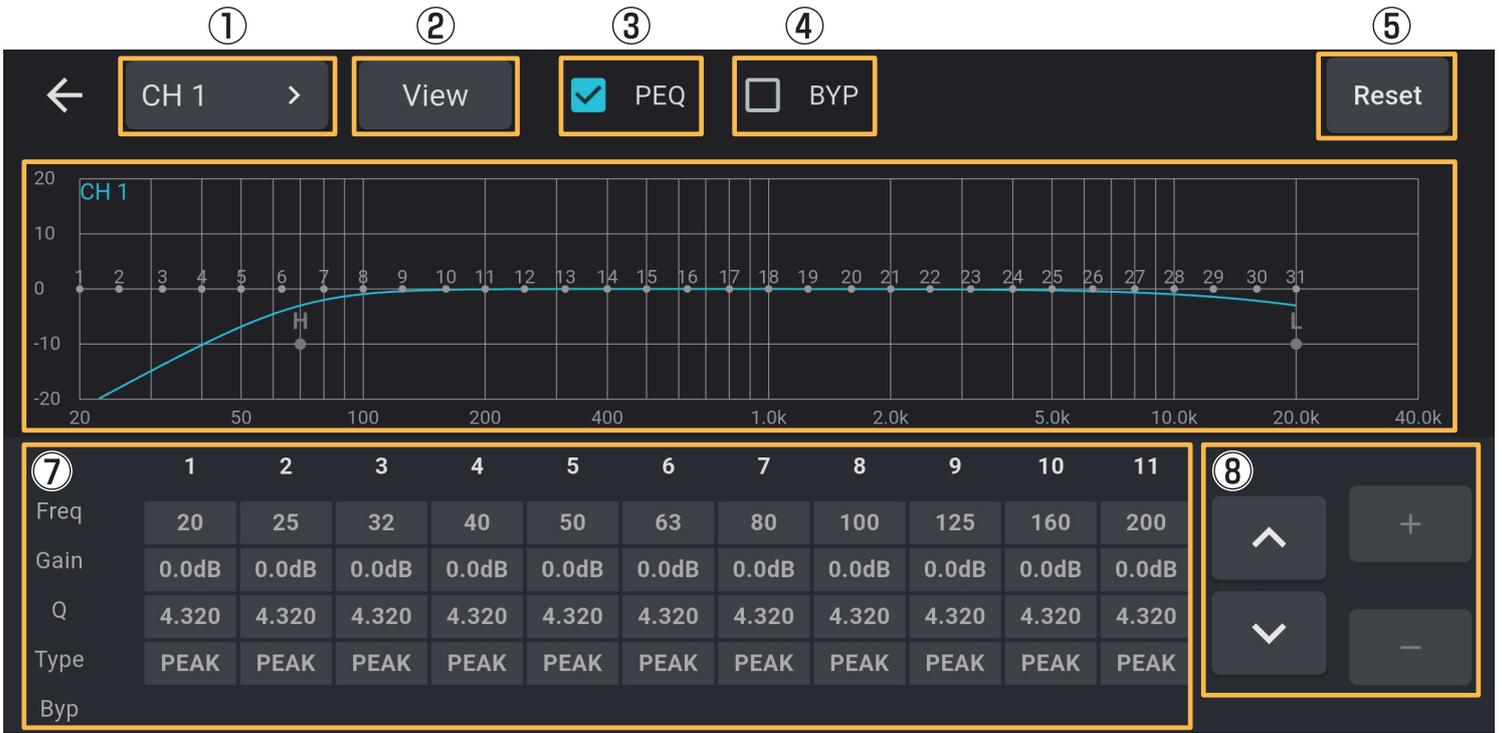   ↑   ↑   ↑
                                  The reference   CH1 distance   CH1 Value

②Setting Channel Actual →
   distance

①The reference value what →
   is the farthest speaker

Output	Actual	Difference with the reference		
	[cm]	[cm]	[inch]	[msec]
CH1	② 100.0	③ 80.0	31.50	2.35
CH2	50.0	130.0	51.18	3.82
CH3	100.0	70.0	27.56	2.06
CH4	40.0	140.0	55.12	4.12
CH5	① 180.0	0.0	0.00	0.00

← ③Delay Unit what should be filled

EQ

【EQ】

① **Select Channel**
Select a Channel what EQ is adjusted

② **EQ curve viewer**
Select certain CH curve what required on chart

③ **Parametric EQ enable**
Tap PEQ button when Parametric EQ is required
Default setting is Graphic EQ mode

④ **Bypass**
Select BYP button when temporarily makes EQ
setting disable

⑤ **Reset**
Tap Reset button when go back to default

⑥ **Charts**
Each CH curve is shown

⑦ **Table of EQ setting**
Adjust EQ setting for each frequency band

⑧ **Adjustment button**
Possible to use these buttons when adjust
Save Device Setting, and Firmware update

■ **Table of EQ setting**
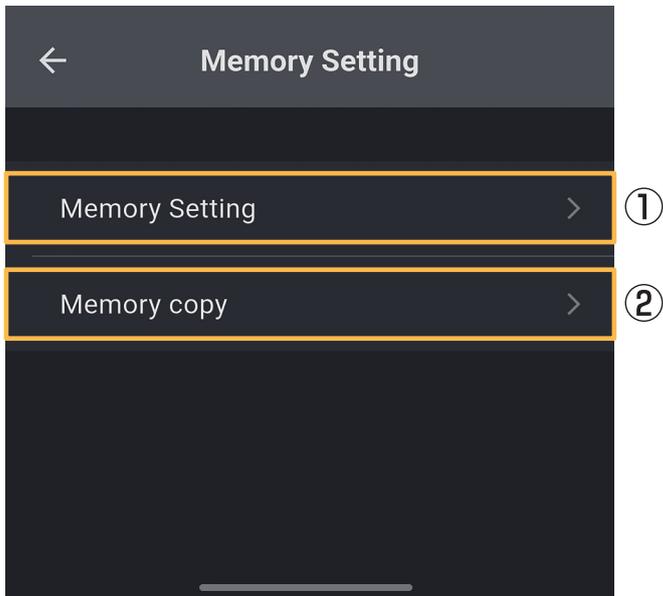Adjust EQ setting for each frequency band

Band ID No. →
Frequency →
Gain Adjustment →
Q Unit Setting *1 →
PEQ Type *2 →
Bypass *3 →

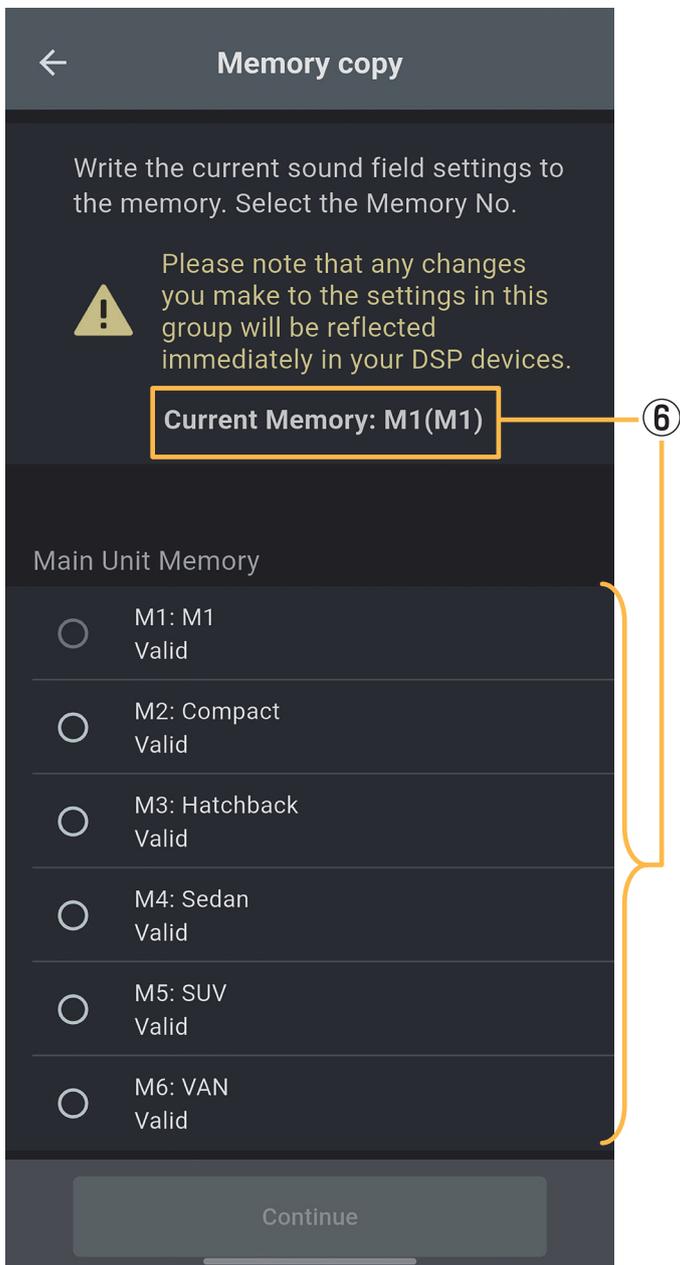＊1 Q Unit can be controllable when Parametric EQ is enable
＊2 Select PEQ Type ［PEAK, AP］
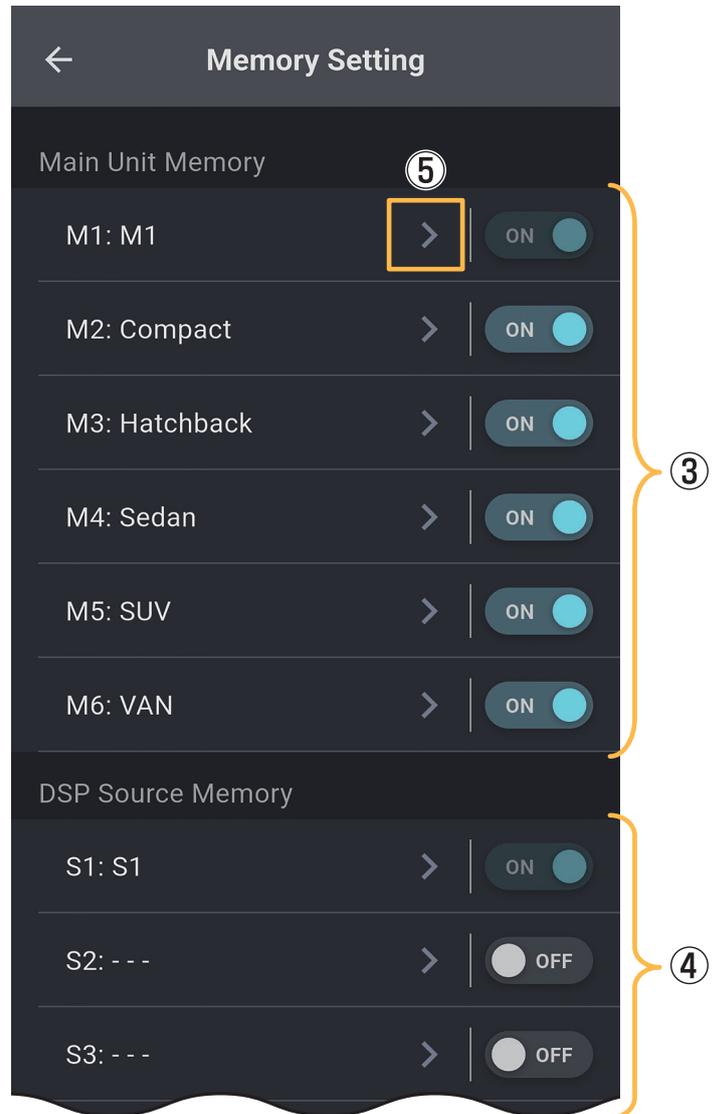＊3 Adjust and Confirm bypass setting for each frequency band
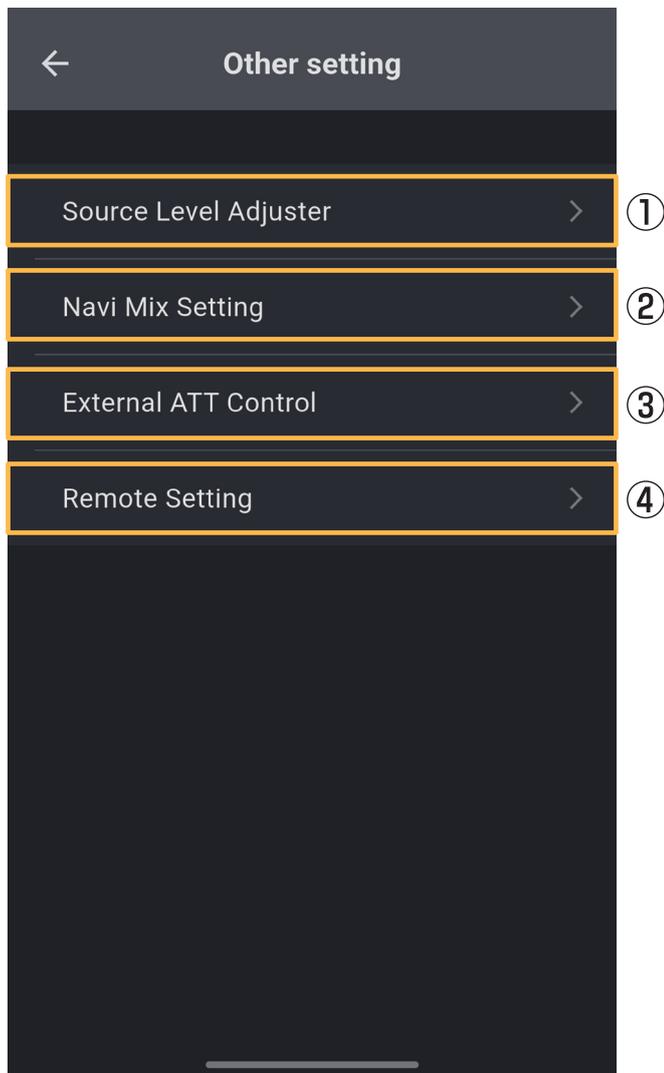
Memory

【Memory Screen】

【Memory Setting】

Main Unit Memory		
M1: M1	>	ON
M2: Compact	>	ON
M3: Hatchback	>	ON
M4: Sedan	>	ON
M5: SUV	>	ON
M6: VAN	>	ON

DSP Source Memory		
S1: S1	>	ON
S2: - - -	>	OFF
S3: - - -	>	OFF

Memory copy

Write the current sound field settings to the memory. Select the Memory No.

⚠ Please note that any changes you make to the settings in this group will be reflected immediately in your DSP devices.

Current Memory: M1(M1)

Main Unit Memory

○ M1: M1
Valid

○ M2: Compact
Valid

○ M3: Hatchback
Valid
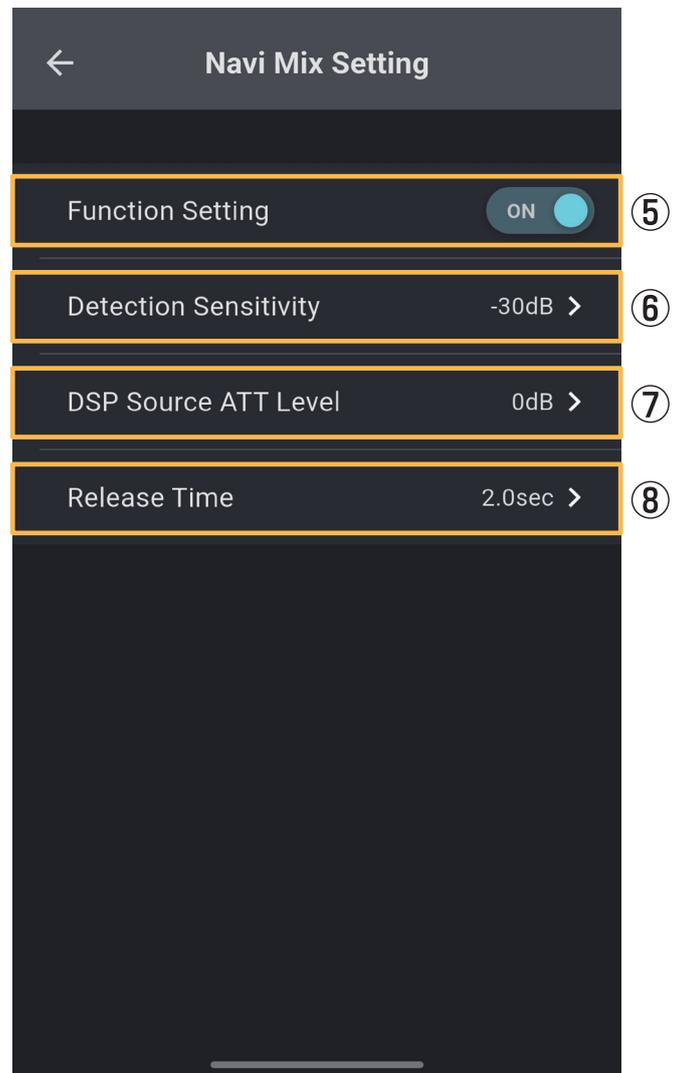
○ M4: Sedan
Valid

○ M5: SUV
Valid

○ M6: VAN
Valid

Continue

【Memory Copy】

① **Memory Setting**
Tap to open Memory Setting

② **Memory Copy**
Tap to open Memory Copy

③ **Main Unit Memory**
Select Memory enable/disable for Main Unit Max 6 Memories can be set

④ **DSP Source Memory**
Select Memory enable/disable for DSP source Max 6 Memories can be set

⑤ **Comment**
Possible to fill any comment for each Memory

⑥ **Memory Copy**
Possible to copy the selected memory to any other memory

Other Setting

【Other Setting】	【Navi-mix Setting】
Other setting Source Level Adjuster ① Navi Mix Setting ② External ATT Control ③ Remote Setting ④	**Navi Mix Setting** Function Setting `ON` ⑤ Detection Sensitivity -30dB ⑥ DSP Source ATT Level 0dB ⑦ Release Time 2.0sec ⑧

① **Source Level Adjuster**
Adjust input level for each source

② **Navi-mix Setting**
Tap to open Navi-mix Setting

③ **External Control**
Adjust Attenuate Level and enable/disable
Possible to use this function when the included Mute wiring (Yellow/Black) is connected control signal line (vehicle back signals, etc.)

④ **Remote Controller Setting (Only for DEQ-7000A)**
The operation of Included Remote Controller can set for short-cut operation
Possible to use a dimmer function when the included illumination wiring (Orange/White) is connected control signal line (illumination power supply, etc.)

＊Short-cut operation：Combinate with Any Music Source and Any Memory Setting Setting, and both settings can be simultaneously shifted

⑤ **Navi-mix enable/disable**
Select enable/disable for Navi-mix function
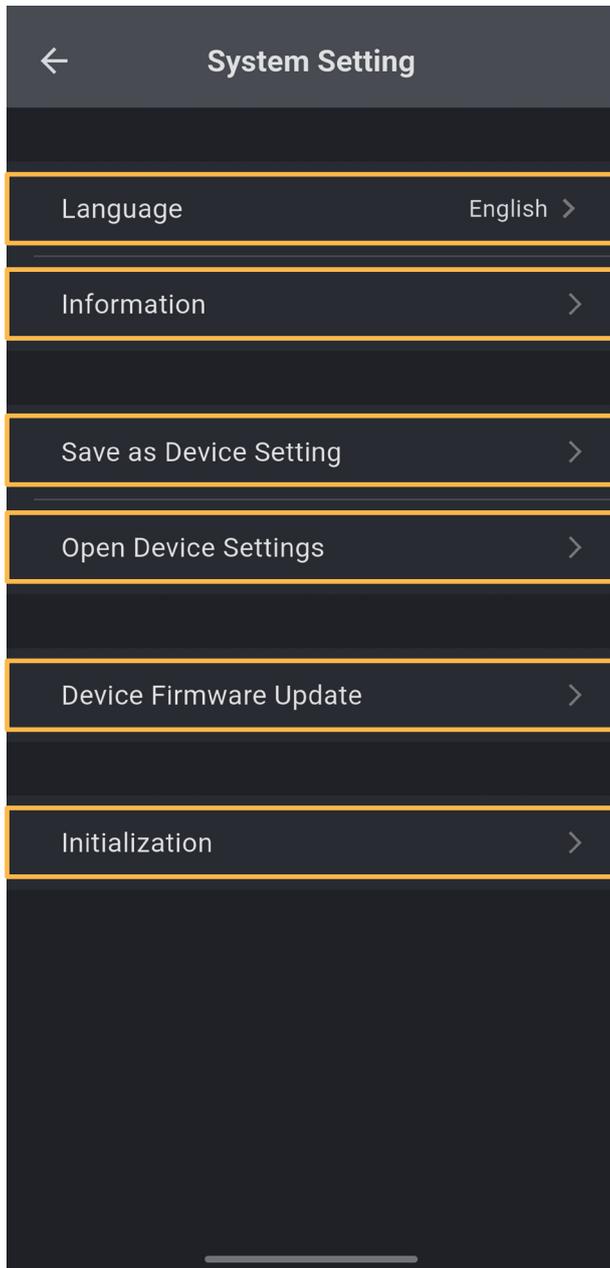
⑥ **Detection Sensitivity**
Adjust a detection sensitivity for Navi-mix function

⑦ **DSP Source ATT Level**
Adjust Attenuate level of DSP Source when Navi-mix function enables

⑧ **Release Time**
When Navi-mix function enable, Adjust Attenuate duration starting from when Navi signal is not detected

System

【System】

① **Language**
   Select Japanese or English

② **Software**
   Confirm a version of Software and Firmware

③ **Save as Device Setting**
   Save a Device Setting in any local of equipment

④ **Open Device Setting**
   Load and implement a saved Device Setting
   ＊Dispose of current Device Setting

⑤ **Device Firmware Update**
   Conduct the Device Firmware Update

⑥ **Initialization**
   Restore factory settings

Remote Controller （Only for DEQ-7000A）

① **Segment Display**
Show DSP Source volume and Memory number

② **Indicator (Power/Each Mode)**
Light up current operation mode

③ **Rotary Encoder**
Used for various operation

④ **Pairing for Bluetooth Audio**
Connection Button for pairing with DSP-AMP device and Bluetooth Audio Device

■ **Operation for Rotary Encoder**
Shift an operation mode each time presses
[VOL → SRC → MEM → BASS → (Back to) VOL]

■ **DSP Volume**
Adjust volume of DSP Source if "VOL" is selected

■ **Music Source**
Select Music Source if "SRC" is selected
[M/U → Bluetooth → SPDIF → USB Audio → RCA※1 → (Back to) M/U]

　＊1 RCA can enable when Speaker Input is selected at Main Unit Selection in Device Setting
　　　RCA is skipped if AUX input is disable

■ **Memory Select**
Select Memory if "MEM" is selected

■ **Bass Level**
Adjust Bass Level if "BASS" is selected

■ **Pairing mode for Bluetooth Audio device**
Tap to shift the pairing mode Bluetooth. Please connect to DSP-AMP by selecting "Pioneer DEQ-7000A Aud" from Bluetooth Audio Device
　＊Blue light LED is flashing in pairing process, and steady in connected

■ **Short-cut operation**
If Remote Controller Mode becomes Short-cut Mode in Device Setting, Tap of Rotary Encoder becomes short-cut operation and shifts to Source and Memory combination at the number What set in Short-cut Setting
[VOL → Short-cut Setting Number → BASS → (Back to) VOL]

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