MOOER

# OCEAN MACHINE II

**Premium Dual Delay, Reverb and Looper Pedal**

# Owner's Manual

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# PRECAUTIONS

## PLEASE READ CAREFULLY BEFORE PROCEEDING

### Power supply

Please use a designated pedal power supply adapter supplying 9V DC, 500 mA,

and center negative. 

Unplug the power adapter when not in use or during electrical storms. Please use a power supply that meets UL, CSA, VDE or CCC standards.

### Cleaning

Clean only with a soft, dry cloth. If necessary, lightly moisten the cloth. Do not use abrasive cleaners, cleaning alcohol, paint thinners, wax, solvents, cleaning fluids, or chemical-impregnated wiping cloths.

### Connections

Always disconnect the power to the device and any other equipment before connecting or disconnecting signal cables. This will help prevent malfunctions and / or damage to other devices. Also make sure to disconnect all connection cables and the power supply before moving the device.

### Operation

- Please do not use excessive force to operate the control elements of the unit.
- Please do not drop the unit, and avoid heavy blows.
- Please do not modify the unit without authorization.
- Should repairs be required, please contact the MOOER support team for more information.

### Storage and usage locations

To avoid deformation, discoloration or other serious damage, do not expose this device to any of the following conditions:

- direct sunlight
- extreme temperature or humidity
- excessively dusty or dirty locations
- magnetic fields
- high humidity or moisture
- strong vibrations or shocks

### FCC certification

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

### Interference with other electronic devices

Radios and televisions placed nearby may experience interference with reception. Operate this device at a suitable distance from radios and televisions.

## FEATURES

- Based on the first generation; we have further improved the algorithm in the ambient performance
- Two standard modes of operation: Play Mode for quick parameter editing and Patch Mode for quick preset access
- Two independent delay modules with 9 different delay types available for each module (total of 15 different delay types), 0 - 2 seconds of delay time and optional ping-pong effect
- High fidelity Reverb module with 9 different reverb types and shimmer effect
- Freeze feedback effect for Delay and Reverb modules
- Tap Tempo functionality with independent, relative tempo options
- For quick and easy adjustment, all main delay and reverb parameters can be adjusted on the fly using dedicated control knobs
- Improved audio Looper providing a total of up to 120 seconds of recording time
- Programmable parallel/serial effect chain, with selectable order of effects; the secret weapon of Devin Townsend's tone creation
- Various additional programming options via LCD menu
- Adjustable Global EQ settings plus adjustable input and output levels for easy integration in any setup and great results with all different kinds of instruments and venue configurations
- 8 storage banks with 3 presets each, providing a total of 24 storage spaces for presets
- Full stereo inputs and outputs
- Switchable circuit design for true bypass or DSP (buffered) bypass
- Supports external parameter control via expression pedal
- Upgraded MIDI control with clock sync, allowing the pedal to sync with other MIDI devices
- Supports external control with MOOER F4 wireless footswitch controller
- USB-C port for firmware updates

## TOP PANEL




1. **LCD screen:** Display screen, showing the current status and setting parameters.
2. **Pre-Dly**: Rotate to adjust the pre-delay of the reverb effect.
3. **Decay**: Rotate to control the decay time of the reverb effect.
4. **Tone**: Rotate to adjust the tone color of the reverb effect:
   12 o'clock for flat EQ; clockwise (1-5 o'clock) low pass filter (20 Hz ~ 500 Hz);

counterclockwise (11-7 o'clock) high pass filter (20 kHz ~ 3 kHz)

5. **RevMix**: Rotate to adjust the dry/wet ratio of the reverb effect.
6. **FeedbackA**: Rotate to adjust the feedback value of the DelayA module (repeats).
7. **TimeA**: Rotate to adjust the delay time of the DelayA module.
8. **SweepA**: Default adjustment of the bandpass sweep for the DelayA delay effect. Turned all the way left, the bandpass filter is turned off. Rotate the control to the right to open up the bandpass sweep with a center frequency range of 80 Hz - 10 kHz and a Q value range of 0.3 - 5. Press and hold the Setting knob while you rotate the Sweep control to adjust the Q value.
9. **DlyMixA**: Rotate to adjust the dry/wet ratio of the DelayA module.
10. **FeedbackB**: Rotate to adjust the feedback value of the DelayB module (repeats).
11. **TimeB**: Rotate to adjust the delay time of the DelayB module.
12. **SweepB**: Default adjustment of the bandpass sweep for the DelayB delay effect. Turned all the way left, the bandpass filter is turned off. Rotate the control to the right to open up the bandpass sweep with a center frequency range of 80 Hz - 10 kHz and a Q value range of 0.3 - 5. Press and hold the Setting knob while you rotate the Sweep control to adjust the Q value.
13. **DlyMixB**: Rotate to adjust the dry/wet ratio of the DelayB module.
14. **Menu**: Rotate/press the knob to select the parameters. (See section *Menu* control)
15. During standard operation, rotate the Menu knob to adjust the Master Mix.
    Press to access the screen menu. Rotate to navigate, press to enter.
16. **Reverb**: Rotate to select a reverb type. (See section *EFFECT TYPES*)
17. **DelayA**: Rotate to select the delay type of DelayA. (See section *EFFECT TYPES*)
18. **DelayB**: Rotate to select the delay type of DelayB. (See section *EFFECT TYPES*)
19. **Home**: Press to return to the main interface screen.
20. **Setting**: Press to enter the Settings menu.
21. **Store**: Press to store the current preset setting.
22. **Looper**: Press to open the Looper Menu.

**Footswitches:**

23. **REV footswitch**:
    Play mode: press to turn the Reverb on/off, hold for frozen feedback effect
    Patch mode: activates all effects used in the selected preset / bypass for all effects (global bypass)
    Looper mode: controls the REC/PLAY/STOP/CLEAR functions of the Looper
24. **A footswitch**:
    Play mode: press the footswitch to turn DelayA on/off, hold for frozen feedback effect
    Patch mode: scroll down between presets
    Looper mode: 1/2 speed mode on/off
25. **B footswitch**:
    Play mode: press the footswitch to turn DelayB on/off, hold for frozen feedback effect
    Patch mode: scroll up between presets
    Looper mode: Reverse mode on/off

**REV + A footswitches simultaneously:**

Play mode: opens **Tap tempo** mode. Then use the **REV** footswitch for Master Tap Tempo or the **A** / **B** footswitches for their respective tap tempos. (See section *Tap Tempo*)

Patch mode: switch between **Patch Detail** screen and **Preset Selection** screen

**A + B footswitches simultaneously:**

Switch between Play Mode and Patch Mode. (See sections *Play Mode* and *Patch Mode*).

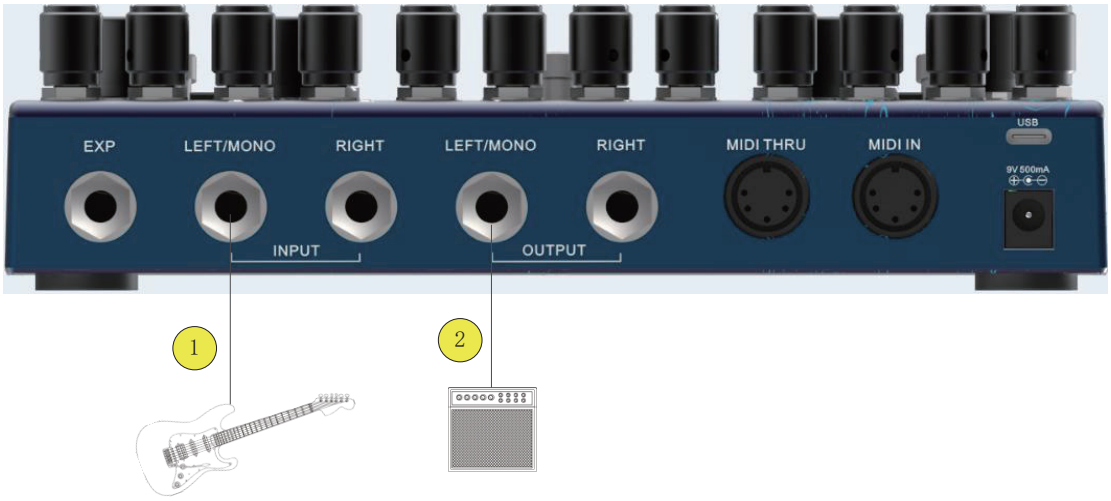
## BACK PANEL




1. **EXP**: 1/4" stereo audio jack, connection to external expression pedal (please use a TRS cable for the connection)
2. **LEFT INPUT**: 1/4" mono audio jack, input for the left channel
3. **RIGHT INPUT**: 1/4" mono audio jack, input for the right channel
4. **LEFT OUTPUT**: 1/4" mono audio jack, output for the left channel
5. **RIGHT OUTPUT**: 1/4" mono audio jack. output for the right channel
6. **MIDI THRU**: 5-PIN MIDI port, transfers and outputs the received MIDI signal from other MIDI devices connected to MIDI IN
7. **MIDI IN**: 5-PIN MIDI port, receives the MIDI signal from other MIDI devices
8. **DC IN**: power supply connector (9V DC, 500 mA, center negative) 
9. **USB**: USB-C port, connection to a computer for firmware update

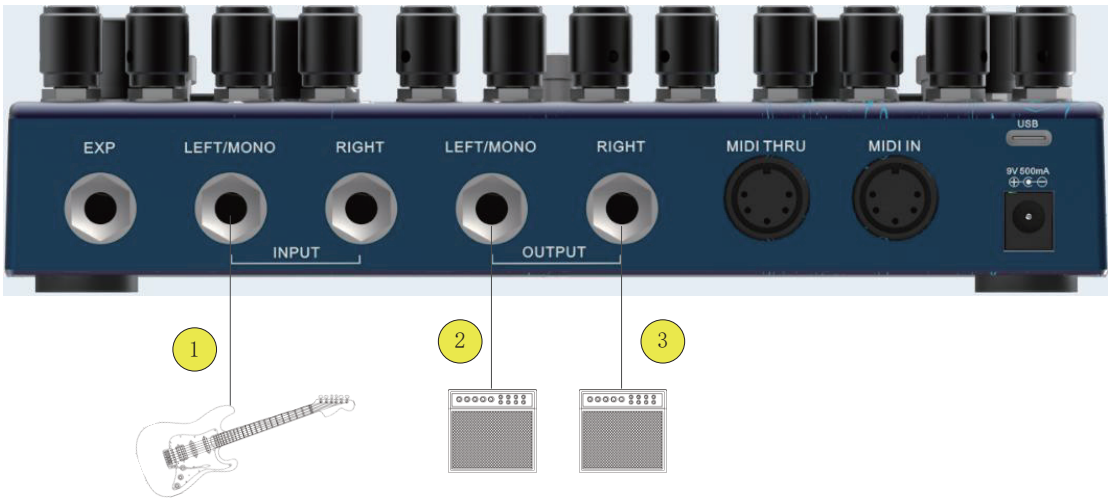
## CONNECTION SCENARIOS

### *Mono setup*



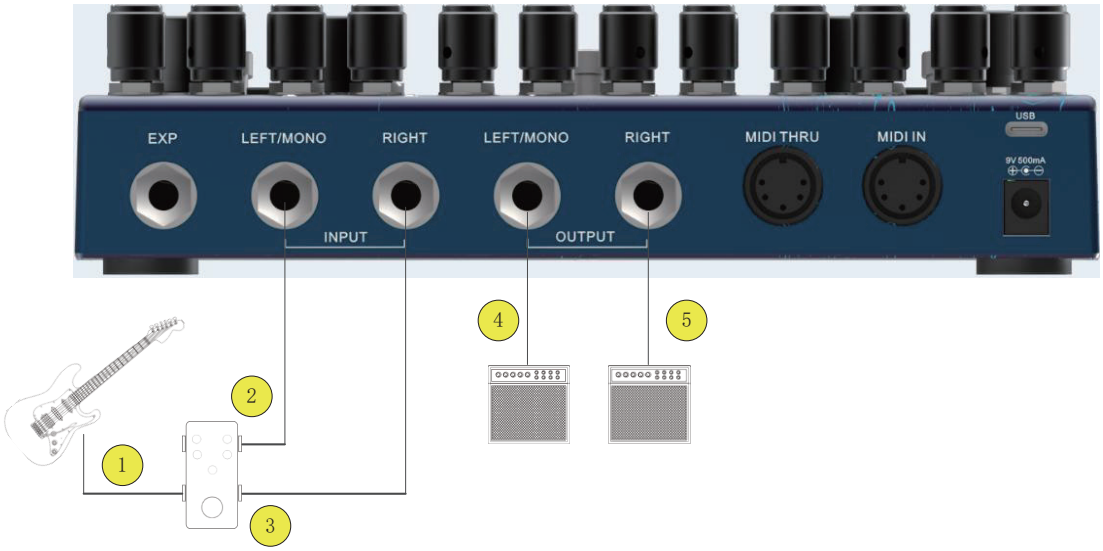

1. Guitar connects to the LEFT/MONO input jack
2. LEFT/MONO output jack connects to the INPUT of the amplifier

## *Mono input and stereo output setup*



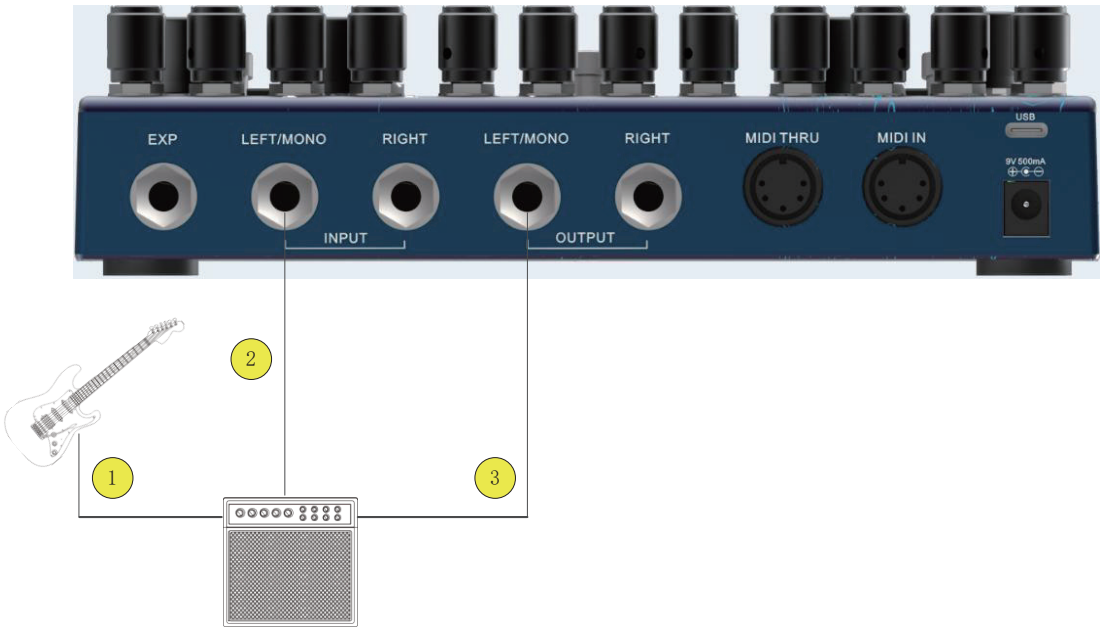

1. Guitar connects to the LEFT/MONO input jack
2. LEFT/MONO output jack connects to the INPUT of the amplifier
3. RIGHT output jack connects to the INPUT of another amplifier

## *Stereo input and stereo output setup*




1. Guitar connects to the INPUT of a stereo pedal
2. LEFT output jack of the stereo pedal connects to the LEFT/MONO input jack
3. RIGHT output jack of the stereo pedal connects to the RIGHT input jack
4. LEFT/MONO output jack connects to the INPUT of the amplifier
5. RIGHT output jack connects to the INPUT of the other amplifier

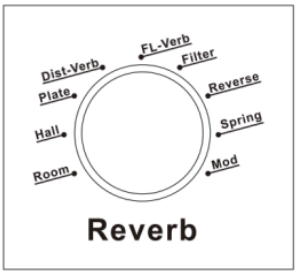
## *FX LOOP setup*




1. Guitar connects to the INPUT of the amplifier
2. LEFT/MONO input jack connects to the SEND of the amplifier
3. LEFT/MONO output jack connects to the RETURN of the amplifier

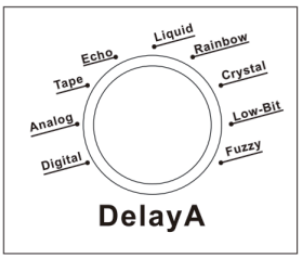
## EFFECT TYPES

### *Reverb*



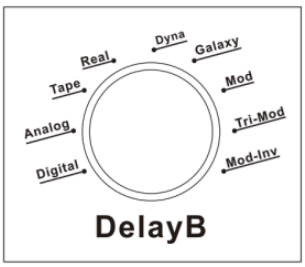

**Room**: Small room reverb with a short decay
**Hall**: Large spacious reverb with a long decay
**Plate**: Based on a traditional mechanical plate reverb
**Ds-Verb***: Distorted reverb
**FL-Verb*:** Reverb with a modulated Flanger effect
**Filter***: Reverb with a modulated envelope follower
**Reverse**: Backwards reverb
**Spring**: Based on a vintage, large tank, spring reverb
**Mod***: Reverb with a modulated Chorus effect
***Note**: All effects marked with an asterisk have additional parameters available for adjustment via the Menu knob.* (See section *Menu* )

### *DelayA*




**Digital:** High fidelity delay with clean repeats
**Analog**: Vintage BB style delay with warm degrading repeats
**Tape**: Based on a classic reel to reel tape echo
**Echo**: Based on a vintage Echorec
**Liquid*:** Digital delay with modulated Phaser repeats
**Rainbow***: Special effect pitch delay with modulation
**Crystal***: Special effect pitch delay with glistening highs
**Low-Bit***: Delay with bit crusher
**Fuzzy***: Delay with Fuzz
***Note**: All effects marked with an asterisk have additional parameters available for adjustment via the Menu knob.* (See section *Menu* )

## *DelayB*




**Digital**: High fidelity delay with clean repeats
**Analog**: Vintage BB style delay with warm degrading repeats
**Tape**: Based on a classic reel to reel tape echo
**Real**: Clear delay with natural sounding repeats
**Dyna**: Dynamic delay
**Galaxy**: Delay with swelled repeats and a light modulation
**Mod***: Delay with modulated repeats
**Tri-Mod*:** 80's style delay with thick modulated repeats
**Mod-Inv*:** Reverse delay with modulation
***Note**: All effects marked with an asterisk have additional parameters available for adjustment via the Menu knob.* (See section *Menu* )

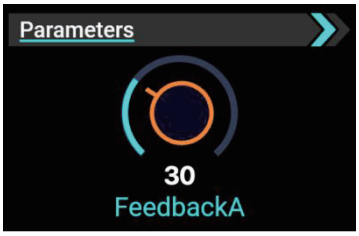
## OPERATION

Plug your guitar into the INPUT of the Ocean Machine II and use audio cables to connect to your amplifier. (See section *CONNECTION SCENARIOS*). Connect the power adapter (9 VDC, 500 mA, center negative) to the DC IN jack.

## *Physical knobs*

Turn the 12 **physical parameter knobs** (4 for each of the three effects) to adjust parameters directly. The screen will temporarily display the parameter names and values and then switch back to display information for the active operating mode.



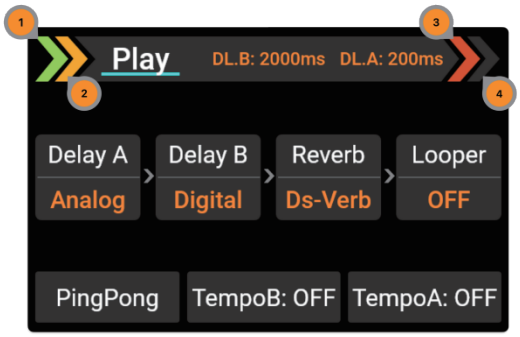



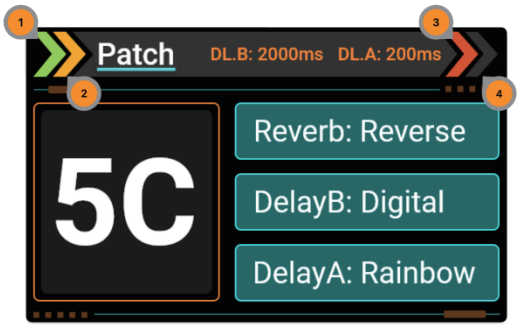

## *Input and Output levels*

The main interface shows arrow graphics to indicate input and output levels. The color of the arrows indicates the signal status:

- dark arrow: no signal or signal too week
- green: signal of moderate strength
- yellow: signal strength close to the critical value
- red: signal distortion

A red indication should be avoided during operation. Green or yellow indications are okay.




1. left input level
2. right input level
3. left output level
4. right output level

## *Modes*

The Ocean Machine II features two main operation modes for using the delay and reverb effects in different ways (**Play Mode** and **Patch Mode**) plus a **Looper Mode**. The Patch Mode features different interfaces: the **Preset Selection** screen and the **Patch Detail** screen.

Press the **footswitches A and B simultaneously** to change the main mode of operation. The active mode is indicated at the top of the screen (**Play** or **Patch**). When booting up, the pedal will remember the mode it was in before it was turned off (power supply removed).

The labeling of the footswitches corresponds to the functions they perform in different modes:

Play mode:



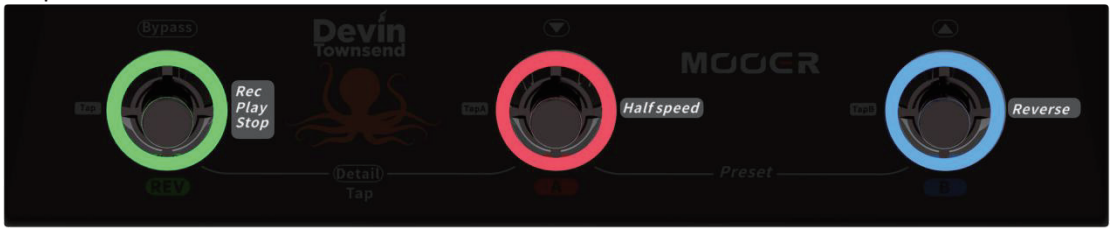

Patch (Preset) mode:




Tap tempo mode:




Looper mode:



## *Play Mode*

In this mode the Ocean Machine II operates like a traditional effects pedal. You can use the **Rev**, **A** and **B** footswitches as if the effects were individual pedals. The footswitch LED indicate whether the respective effect is ON or OFF.

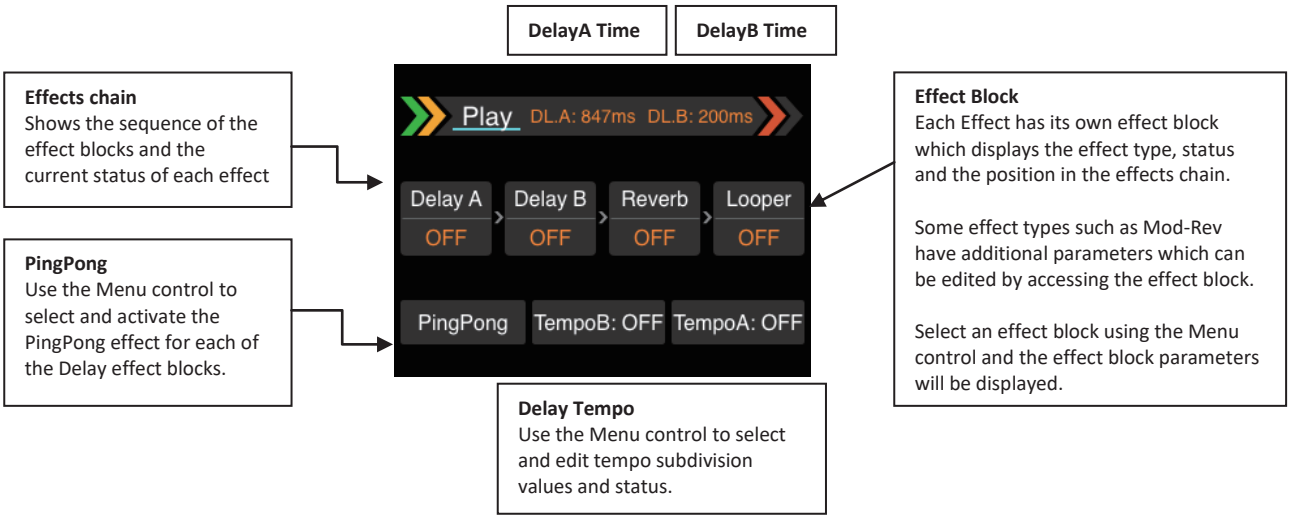
In Play mode, turn the **Reverb**, **DelayA** and **DelayB** knobs to select the effect type for each of the three effect modules. After selecting an effect type, turn the physical knobs at the top of the panel to make quick adjustments to the effect parameters.

All of the basic effect parameters can be changed directly by adjusting the respective control knobs. The values of the main effect parameters correspond to the settings indicated by the physical knobs. For some effect types, additional parameters can be set using the **Menu** button. These are indicated only in the display. (See section *Parameter screen*.)

Additional effect parameters, tempo subdivisions, ping pong effects, sequence of the effects chain, etc. can be edited and adjusted in the menu screen. (See section

*Menu* control.)

### Display in Play Mode




### Footswitch functions




#### *REV / A / B*

Pressing any of the footswitches once will turn the respective effect **(Reverb / DelayA / DelayB)** ON or OFF.

If one of the effects is active, it will show its selected effect type in the display and the respective footswitch LED ring is lit and, in case of the delays, blinking to indicate the selected tempo.

If an effect is not active, the respective LED ring is off and the module in the display shows OFF.

### *Freeze Feedback*

Holding down any of the footswitches while its respective effect is turned on will put the effect into a state of **infinite feedback** until the footswitch is released. This can result in oscillating feedback in some cases. The feedback will decay again as soon as the footswitch is released.

**Note**: If you want to use Freeze Feedback in **Patch Mode,** press the REV and A footswitches simultaneously to switch to **Patch Detail** screen. Then use the footswitches as described above.

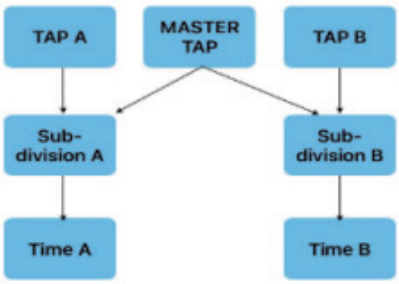
### *Tap Tempo*

Simultaneously press the **REV** and **A** footswitches to access tap tempo control. The green LED ring for the REV footswitch will blink to indicate that the Tap Tempo Mode is active. The blinking rate indicates the speed of the MASTER TAP TEMPO. The Screen will show the BMP value of the Master Tap Tempo.
You will then have a few seconds to enter your desired tempo by tapping a footswitch at least two times.

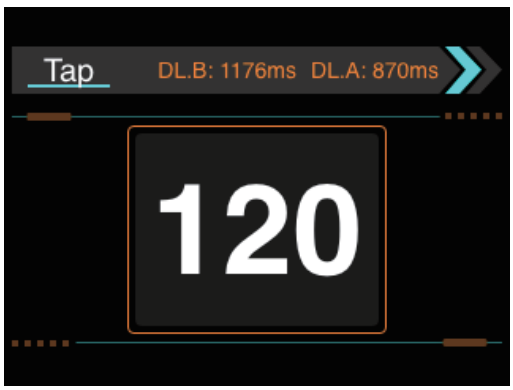



Values for automatic tempo subdivision can be set for each delay separately by accessing the **TempoA** and **TempoB** fields in the main screen. (See section *Tempo subdivisions*.)

**REV footswitch** = **Master Tap Tempo**:
Tapping the REV footswitch sets the Master Tap Tempo for DelayA and DelayB simultaneously.
The subdivision settings for DelayA (TempoA) and DelayB (TempoB) will then be applied to the Master Tap Tempo.
The Master Tap Tempo has no effect on DelayA or DelayB if the subdivision settings are set to OFF.




While setting the Master Tap Tempo, the display screen shows the BPM value for the Master Tap Tempo and the blinking rate of the Reverb LED ring also indicates the tempo.
You can set the value by rotating the **Menu knob** or by tapping the **REV footswitch** several times.

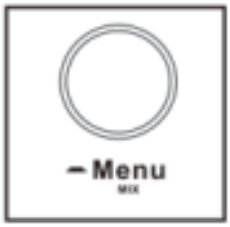



**A footswitch** = Sets an individual tap tempo for DelayA.

**B footswitch** = Sets an individual tap tempo for DelayB.

The BPM value for each tempo is indicated in the display and the respective footswitch LED blinks to indicate the selected tempo. The top line of the display screen shows the tempo values for DelayA and DelayB in milliseconds.

The tap tempo mode is automatically closed after 3 seconds without tapping.
The LED ring of the REV footswitch will then stop blinking. The LED rings of the A and B footswitches will continue blinking in the selected tempo.



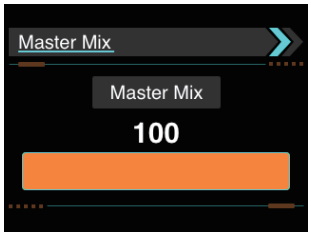

## Menu control

### *Navigation*

- Press the **Menu** knob once and rotate it to navigate the menu screen.
  The selected module or parameter is highlighted by a blue frame.
- Press the **Menu** knob to access the respective parameter screen for each module.
  Rotate and press **Menu** to select and edit parameters (only those not controlled by physical knobs) or to set states.
- Press the **Home** button to return to the main menu screen (main interface for Play Mode or Patch Mode).
- The Menu knob will then act as a master mix control.

### *Master Mix*

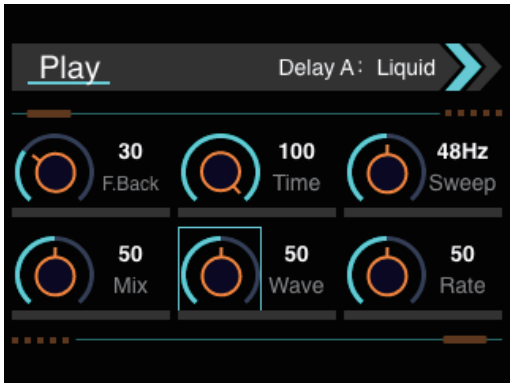
When the main interface (Play or Patch Mode) is displayed and no module is selected (highlighted), rotate the **Menu** knob to adjust the master output effect mix of the Ocean Machine II (ratio of the effect signal / dry signal), with 100 being the maximum effect volume and 0 being completely dry sound output.




In Play mode, adjust the Master Mix by turning the Menu knob. In Patch mode, you can adjust it by turning the Menu knob in the Preset Selection Screen and in the Patch Details screen.

### *Parameter screen*

The parameter screen is opened by selecting a module by pushing the **Menu** knob once, then rotating it to highlight the desired module and then pushing the **Menu** knob again to open the module.



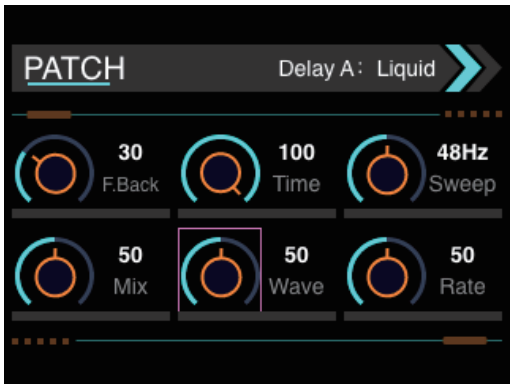

The top row in the display shows the selected effect type. The section below shows the parameters for this type.

In Play Mode, the indicated parameters correspond to the physical settings of the knobs. The main parameters can only be adjusted by rotating the corresponding knobs. The parameter values are indicated as dials and digital readouts (in percent).

**"Hidden" parameters**

Some effect types (e.g. "Dist-Verb" or "Crystal Delay") may have additional parameters that have no physical knobs and can only be selected and adjusted using the **Menu** knob. Rotate the **Menu** knob to select the additional parameter (highlighted by a blue frame), then press **Menu** to access the parameter (highlighted by a red frame) and then rotate **Menu** to adjust the parameter. Press **Menu** again to return to parameter selection.

**Note**: If you are in **Patch Mode**, press REV and A footswitches simultaneously to open the Patch Detail mode. You can then adjust the parameters as described above.

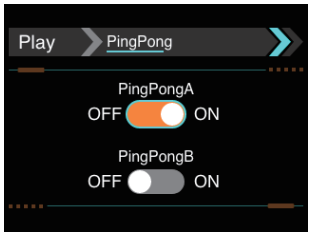



Return to the main screen by pressing the **Home** button.

### *PingPong effect*

The PingPong effect will alternate the delay repeats between the right and left side in a stereo panorama.

- Use the **Menu** knob to select the **PingPong** field in the bottom row of the main screen and push **Menu** to open the **PingPong** screen.
- Use the **Menu** knob to select and activate/deactivate the PingPong effect for DelayA and/or DelayB.
- Return to the main screen by pressing the **Home** button.




In **Patch mode**, first step on the **REV** and **A** footswitches simultaneously to open the Patch Detail screen, then use the steps above to set the PingPong effect.

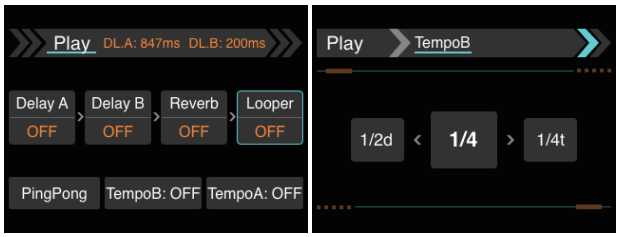
### *Tempo subdivisions*

For DelayA or DelayB, tempo subdivisions will be applied to the tap tempo that was entered for each individual delay or to the Master Tap Tempo entered with the help of the Reverb footswitch.

**Example**: If TempoA is set to 1/2, the tempo for DelayA will be half of the tap tempo value.

- Use the **Menu** knob to select one of the **TempoA** or **TempoB** fields in the bottom row of the main menu screen and push **Menu** to open the respective screen.
- Push **Menu** to activate / deactivate subdivisions for the tempo of DelayA or DelayB. Rotate the **Menu** knob to select the desired subdivision (if activated).
- Return to the main screen by pressing the **Home** button.

The selected subdivision (or OFF status) is indicated in the respective Tempo field for DelayA or DelayB.




**Note**: Tempo OFF state is fixed to 1/4 by default.

### *Positioning effects in the signal chain*

The effect modules and the Looper module can be positioned **in series** in the signal chain. This is indicated by showing the modules behind each other in the menu screen.

Delay and Reverb effects can also be positioned **in parallel** to each other. This in indicated by two modules shown on top of each other in the menu screen.

The Looper module can only be used in series in the effect chain.

- Use the **Menu** knob to highlight the effect module you wish to move (blue frame).
- Hold the **Menu** knob down and rotate it to move the effect module to the desired position.
- Release the **Menu** knob to confirm effect module placement.

In **Patch mode**, first step on the **REV** and **A** footswitches simultaneously to open the Patch Detail screen, then move the module as described above.

**Storing settings as preset**

All setting configurations can be saved as presets for later recall in Patch Mode.

- Press the **Store** button.
- The screen will show a preset number indicating the bank number (1-8) followed by a letter for the Preset (A-C).
- Rotate the **Menu** knob to select a preset slot where you want to save your settings. You can also use the A and B footswitches to select a slot.
- Press the **Save** button one more time to confirm or press **Home** to cancel the saving process.




**Note**: Previously saved settings in the selected slot will be overridden.

## *Patch Mode*

In this mode, the Ocean Machine II recalls saved presets. The OMII features 8 banks with 3 presets each, for a total of 24 presets.

All main effect parameter values correspond to the values saved in the preset, **not** to the values indicated on the respective physical knobs.

The parameter values will revert to the value indicated on a physical knob as soon as an adjustment is made on the respective knob. During adjustments, a temporary digital readout of the adjusted value is shown in the respective effect field in the display.

Adjusted values must be saved in the preset or they will return to the previously stored value as soon as the preset is changed.

Other effect parameters such as additional parameters, relative tempos, ping pong effect, sequence of effects in the chain, etc. can all be edited the same way as in Play Mode. (See section

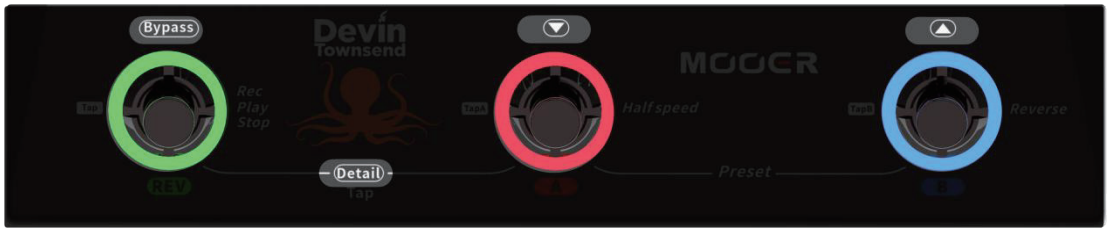
*Menu* control.)

**Note**: All changes must be stored in the preset or they will get lost as soon as the preset is switched.

Rotating the **Menu** knob will adjust the Master Mix.

Pressing the **Menu** knob opens the Patch Detail screen to allow the same adjustments as in Play Mode. (See section *Play Mode*.)

## Footswitch functions



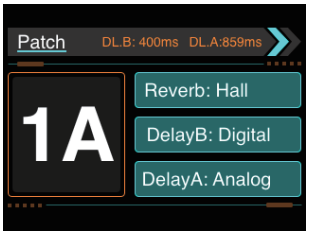

**REV (Bypass)** **in Preset Selection screen:**

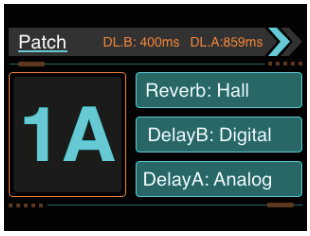
**- activates the pedal,**

- footswitch LED for effects that are active in the selected preset are lit
- A and B LED rings blink to indicate the respective tempo
- the preset number in the display is shown in blue

**- or switches the pedal to global bypass,**

- all effects are switched to bypass
- all footswitch LED rings are off
- the preset number in the display is shown in white




**in Patch Detail screen:**

- activates / deactivates the Reverb effect

Press **REV + A** footswitches simultaneously to toggle between the **Preset Selection** screen and the **Patch Detail** screen. You can also press the **Home** button to return to Preset Selection from Patch Detail screen.

**A (down)** **in Preset Selection screen:**

- switches to the previous preset,
- hold to scroll and release when desired preset is reached
- activates the pedal if it is in bypass mode

**in Patch Detail screen:**

- activates / deactivates DelayA

**B (up)** **in Preset Selection screen:**

- switches to the next preset,
- hold to scroll and release when desired preset is reached
- activates the pedal if it is in bypass mode

**in Patch Detail screen:**

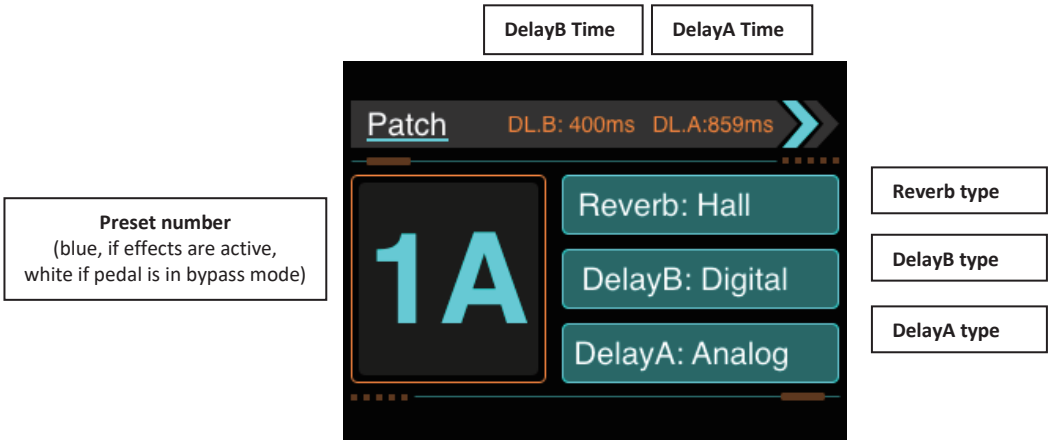
- activates / deactivates DelayB

If the **Patch Detail** screen is shown, all three footswitches can be used to **activate / disable the respective effect** for this preset. The status is indicated by the respective footswitch LED and in the

Patch Detail screen (Effect type / OFF).
The On/Off status of each individual effect is stored separately for each preset.

Press **A + B** footswitches simultaneously to switch to **Play Mode**.

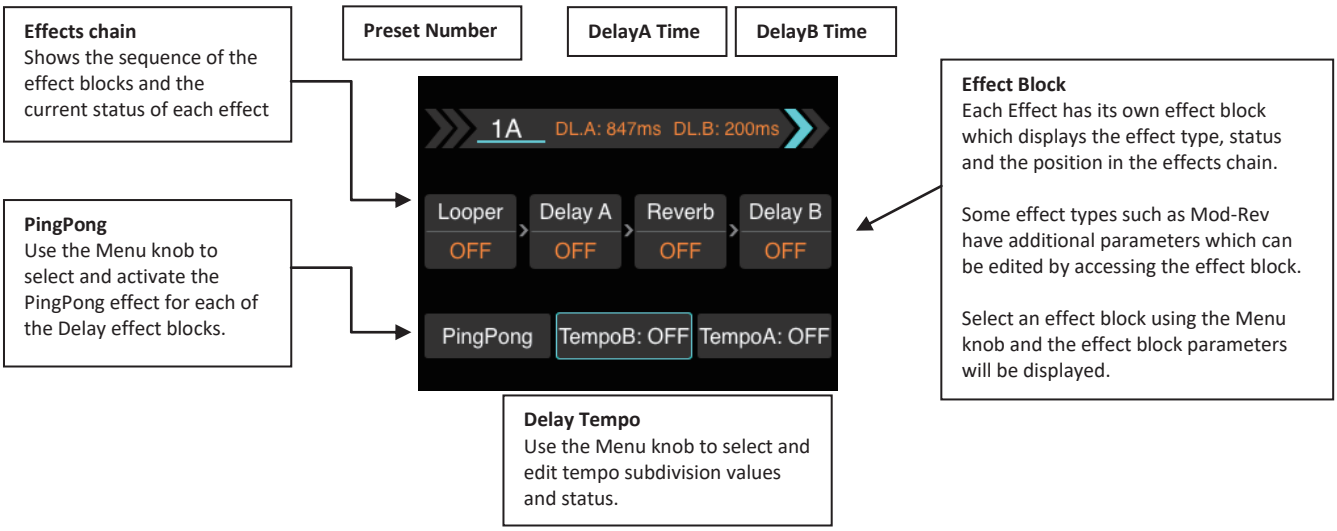
## Preset Selection screen




## Patch Detail screen

When the display shows the Preset Selection screen, press the **Menu** knob to open the patch detail screen. Alternatively you can press the **REV + A** footswitches simultaneously to toggle between the Patch Detail screen and the Preset Selection screen.

When the Patch Detail screen is open, all footswitches and controls will have the same functions as in Play Mode (except Tap Tempo) and can be used to perform the same adjustments as in Play Mode. Parameters are also adjusted the same way as in Play Mode. (See section *Play Mode*.)
The footswitches can now be used to activate / disable the individual effects for this preset.




In Patch Detail mode, features like **Freeze Feedback**, **parameter** adjustment, **PingPong** settings, tempo **subdivisions** and **module positioning** can be accessed the same way as on Play Mode. (See section *Play Mode*.)

## Tap Tempo

**Tap Tempo** input in Patch Mode can only be realized by using an optional **F4 wireless footswitch**. Please see section *F4 Wireless Footswitch* for Details.

Subdivisions for the tempo input can be set the same way as in Play Mode. See section *Tempo subdivisions*.

## Storing presets



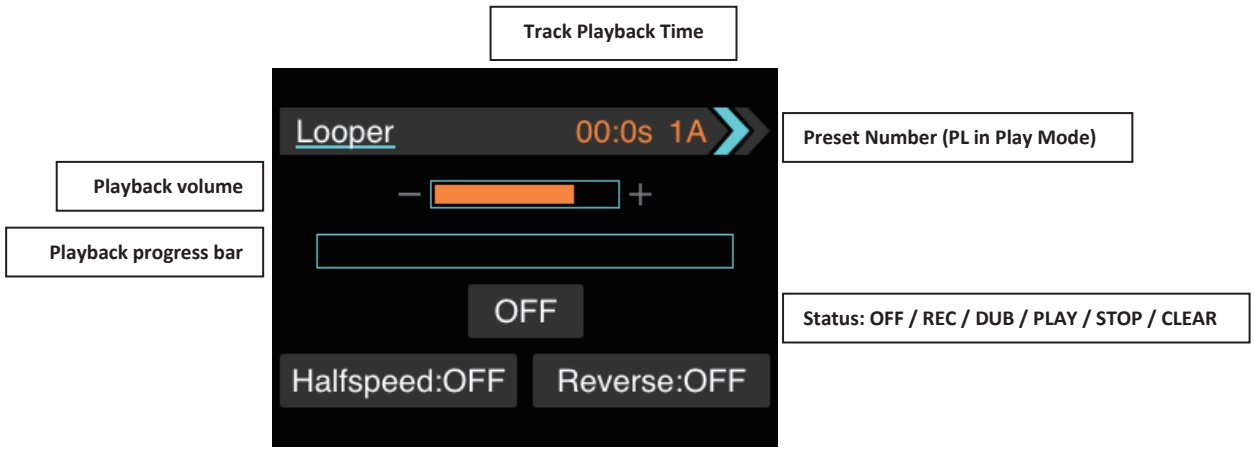

- After changing settings for a preset, press the **Store** button to save the changes.
- The screen will display a preset number.
- Rotate the **Menu** knob to select a preset slot where you want to save your settings. You can also use the A and B footswitches to select a slot.
- Press the **Save** button one more time to confirm or press **Home** to cancel the saving process.

**Note**: Previously saved settings in the selected slot will be overridden.

# LOOPER

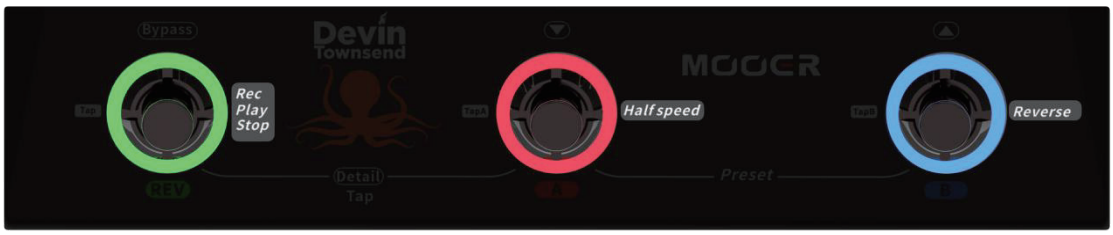
The Ocean Machine II pedal features a Looper with up to 120 seconds of recording time, overdubbing, independent level control, full featured half speed + reverse effects and no limit to the number of recorded tracks.

Press the **Looper** button on the panel to access the Looper mode from any other mode.



## *Operation*

**Menu knob**
Rotate **Menu** to adjust the Looper playback volume level. This is independent from the master mix.




**REC / PLAY / DUB / STOP / CLEAR (REV footswitch)**

- With an empty track: **Tap once** for Record, tap again for Play, tap again for Dub…
- **Double-tap** for Stop (when Looper is in Play mode)
- **Hold** for Clear All (when Looper is in Stop Mode)

**LED indication:**

- **Off**: nothing recorded (e.g. after Clear All)
- **Blinking slowly**: the Looper is recording or over dubbing
- **Continuously lit:** the Looper is playing back
- **Blinking quickly:** the Looper is in Stop-Mode

**HALF SPEED (A footswitch)**

- Half-Speed on / off
  When half-speed is active, the footswitch LED is lit and the status is indicated in the screen.

**REVERSE (B footswitch)**

- Reverse loop on / off
  (this effect is available after the first loop was recorded)
  When reverse loop is active, the footswitch LED is lit and the status is indicated in the screen.

**Notes**:

- When the Looper is recording and the first layer of recording is full, the Looper will automatically switch to Dub (and record the next layer).
- While the Looper is operating, you can go back and forth between the Looper and your current operation mode by pressing the Looper button. You cannot change the operating mode (i.e. use A + B footswitches to switch between Play and Patch) while in Looper mode.
- If the Looper is playing and the pedal is in **Play Mode**, the loop will continue playing, even if all effects are turned off. In **Patch Mode**, however, the playback will be muted, if the pedal is switched to global bypass (REV footswitch).

## *Looper positioning*

The Looper can be placed at different positions in the effects chain. (See section *Positioning effects in the signal chain*)

- **In front of the chain**, the Looper will record (and then play) the dry signal directly from the input. This can be used to record a dry signal of the instrument and apply Delay / Reverb effects after the Loop was recorded. This "clean" recording can then be moved further back in the chain so different or no effects (end of chain) will be applied to the loop as compared to the live input from the instrument.
- **In the middle of the chain**, the Looper will record any effects that have been applied to the signal before the Looper position. These effects will remain recorded in the loop and always be audible even if the recorded loop is moved in the signal chain and even if all effects on the pedal are

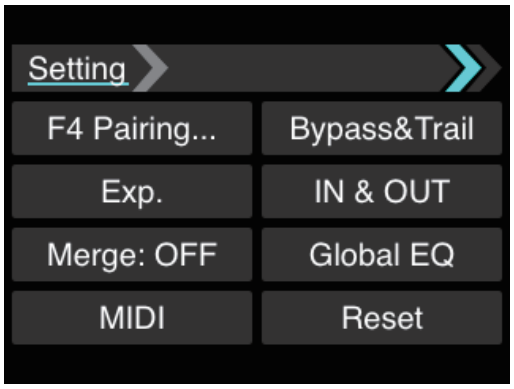
turned off after the recording was made.

- **At the end of the chain**, the Looper will record the wet sound of the entire effects chain.

## SETTINGS MENU

Press the **Settings** button to open the menu screen for global settings. These settings are not stored within the presets and are effective regardless of the selected operation mode or the selected preset.

- Press the **Setting** button to enter the settings menu.
- Press the **Home** button to return to the main menu screen (main interface for Play Mode or Patch Mode).



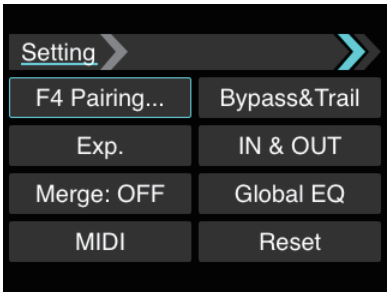

- Rotate the **Menu** knob to navigate the settings menu.
- Press the **Menu** knob to access parameter screens, enter parameters and set states.

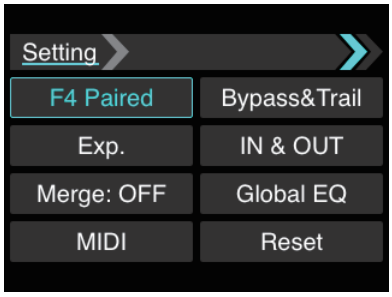
### *F4 Pairing*

Ocean Machine II supports the MOOER F4 wireless footswitch for external control options.
Use this setting to pair your Ocean Machine II with an optional wireless MOOER F4 series footswitch.

Turn the F4 wireless footswitch on and long press the A + C footswitches on the F4 simultaneously to put it into pairing mode. The F4 LED will flash to indicate "ready for pairing" status.

Select "**F4 Pairing**" in the Settings screen and press the Menu knob for pairing. The "**F4 Pairing**" label turns green to indicate that the pairing is in progress. After successful pairing, the label changes to "**F4 Paired**".




Once paired, the wireless footswitch will automatically connect to the OMII as soon as both devices are turned on.

After successful pairing, F4 footswitch display shows "PL" for **Play Mode** or the current preset number in **Patch Mode**.

The four footswitches on the F4 wireless pedal perform the following functions:

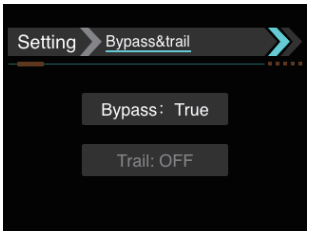
**Footswitch A:** Master Tap Tempo, the LED flashes to indicate the selected tempo

**Footswitch B:** Tap Tempo for Delay A, the LED flashes to indicate the selected BPM value

**Footswitch C:** Tap Tempo for Delay B, the LED flashes to indicate the selected BPM value

**Footswitch D:** Switches all modules into bypass, only the dry signal is put out (works in Play and Patch modes). LED is off in BYPASS. Step on D again to re-activate the previously active modules. The LED will be lit to indicate ACTIVE mode.

## *Bypass & Trail*




Use this screen to select the bypass type (**DSP** or **True** bypass).

**Note:** When the INPUT has only LEFT/MONO connected, but the OUTPUT has both LEFT/MONO and RIGHT connected, the system will automatically switch to **DSP** bypass.
The user can select between **DSP** and **True** bypass if both inputs are connected or if only one input and one output are connected.

**Bypass type**
**DSP bypass** (Digital Signal Processing) buffers the signal in the bypass.
**True bypass** does not buffer the signal and provides a direct connection between input and output.

- Rotate the **Menu** knob to select the Bypass field.
- Press the **Menu** knob to select the desired bypass type (True or DSP).

**Trails**
**Trails** can only be activated when DSP bypass is selected.

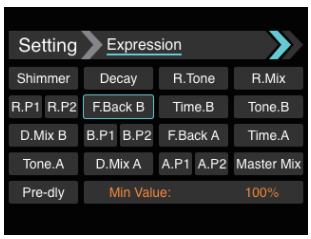
With **Trails active** the repeats of the delay effects or the echo of the reverb effect are allowed to naturally decay after the respective effect has been switched off, but no new repeats or echoes will be generated.

With **Trails deactivated** the repeats of the delay effects or the reverbs echoes will be cut off as soon as the respective effect is switched off.

- Rotate the **Menu** knob to select the Trail field.
- Press the **Menu** knob switch Trail On/Off.

## *Exp.*

Use this page to select which parameter is controlled by an external expression pedal and adjust the minimum value for the parameter when the expression pedal is in the heel down position (in case you do not want the minimum value to be zero).



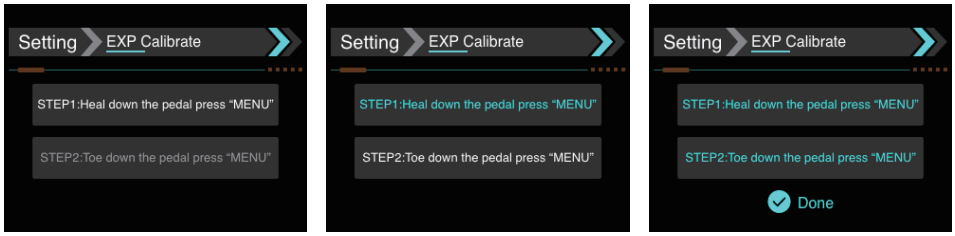
- Rotate the **Menu** knob to select which parameter you want the expression pedal to control. This will be a global setting and cannot be changed per preset.
- Press the Menu knob to confirm your selection. The selected Parameter will be highlighted in red. (**Note**: P1 and P2 in are the two hidden parameters in the effect model, such as Dist and Level for "Dist-Verb")
- Select the "**Min Value**" field at the bottom of this screen to change the minimum value in percent that is applied to the effect when the expression pedal is in the heel down position.

## *Calibrate*

When connecting an expression pedal for the first time or when you find that the pedal is not working properly, it is recommended to calibrate the pedal. An expression pedal only needs to be calibrated once. You only need to re-calibrate when you switch expression pedals.

Use this screen to calibrate the connected expression pedal. Follow the instructions on the screen.

For best results, use an expression pedal with a max potentiometer resistance of 10 kΩ - 50 kΩ.
Use a 1/4" TRS (stereo) cable to connect your expression pedal and your OMII.




To calibrate your pedal:

- Open the **Calibrate** screen in the OMII settings menu.
- Open your expression pedal all the way to the "**heel down**" position.
- Press **Menu** on the OMII to calibrate the minimum value.
- Close your expression pedal all the way to the "**toe down**" position.
- Press **Menu** on the OMII again to calibrate the maximum value.

This completes the calibration process. Press **Home** to return to the main screen.

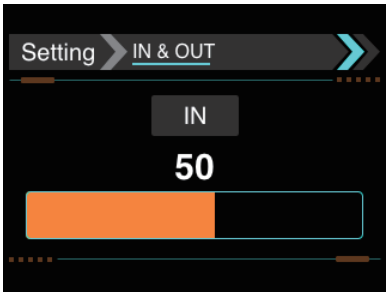
**Note**: If an error is prompted during calibration, please check the following:

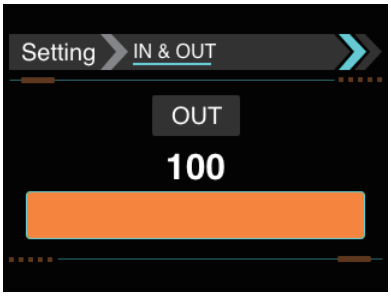
- The expression pedal is properly connected with a 3-wire TRS connecting cable and the cable is not damaged.
- The value for the heel down position should always be smaller than the value for the toe down position (the value in Step 1 should be smaller than Step 2).

## *IN & OUT*

Use this screen to adjust the global input and output levels.

- Press the **Menu** knob to change between Input level (**IN**) and Output level (**OUT**).
- Rotate the **Menu** knob to adjust the level.




## *Merge*

With Merge activated, trails (repeats and echoes) of the delays and reverb will blend into each other when the effect type or a preset is changed.

- Press the **Menu** knob to switch Merge on/off.

## *Global EQ*

The Ocean Machine II is equipped with a Global EQ section which will affect both your dry guitar signal and the sound of the effects. This can be switched on or off. The Global EQ can be used for quick adjustments to accommodate the sound conditions at the venue. Global EQ settings are independent of presets and affect all presets.

- Rotate the **Menu** knob to select the On/OFF field or the parameter you wish to change (blue frame).
- Press the **Menu** knob to adjust the selected parameter (red frame).
- Rotate the **Menu** knob to change value.
- Press the **Menu** knob again to finish adjustments (blue frame).



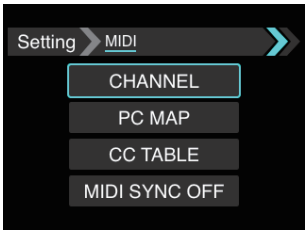

**1. ON/OFF:** Switches the Global EQ on or off

**2. L.FREQ:** Adjustable low frequency cut.
The following options are available: OFF, 27 Hz, 47 Hz, 82 Hz, 150 Hz and 270 Hz.
The default setting for the LOW frequency cut is OFF.

**3. EQ:** Cut or boost BASS, MID or TREBLE frequencies up to +/- 12dB
(12 O'clock is 0 dB boost or cut).

**4. H.FREQ:** Adjustable high frequency cut.
The following options are available: OFF, 18 kHz, 12 kHz, 8.2 kHz, 5.6 kHz and 3.9 kHz.
The default setting for the HIGH frequency cut is OFF.

## *MIDI*




Use this screen to configure settings for MIDI control.

**CHANNEL:** select one of MIDI channels 1-16 or OMNI.

**PC MAP**: map PC# to presets to be able to change presets using PC commands.

**CC TABLE:** shows a table of CC commands, the functions they control and the respective value ranges. (See *MIDI TABLES.*)

**MIDI SYNC**: activates / deactivates MIDI clock sync with other devices.
If MIDI SYNC is active, the Master Tap Tempo of the OMII will be synched with the connected MIDI device.

## *Reset*




This will perform a factory reset of your Ocean Machine II.

- Rotate the **Menu** knob to select **YES**.
- Press the **Menu** knob to perform factory reset.
  You will be prompted to press again for confirmation.

Select **NO** or press the **Home** button to cancel the factory reset procedure.

**Note**: A reset will delete your stored presets and set them back to factory settings.

## EXPRESSION PEDAL

- An external expression pedal can be used to control various parameters of the Ocean Machine II.
- Use a 1/4" TRS (stereo) cable to connect an expression pedal to the EXP input of the OMII.
- For best results, use an expression pedal with a maximum potentiometer resistance of 10 kΩ ~ 50 kΩ.
- You can select the parameters which the expression pedal controls on the Exp. screen in the Settings menu (see section *SETTINGS MENU*).
- Please calibrate your expression pedal before you use it for the first time on your OMII. (See section *Calibrate* in the Settings menu)

## WIRELESS FOOTSWITCH

The Ocean Machine II supports a wireless footswitch of the MOOER F4 series (to be purchased separately).

Please consult the manual for the F4 footswitch for battery specs and charging requirements.

Please see section *SETTINGS - F4 Pairing* for information about establishing a connection between OM II and the F4 footswitch.

Once paired, the wireless footswitch will automatically connect to the OMII as soon as both devices are turned on.

The Ocean Machine II can only be connected to one wireless footswitch at a time.

The F4 wireless footswitch can be used to perform the following functions:

- **Footswitch A:** Master Tap Tempo, the LED flashes to indicate the selected tempo
- **Footswitch B:** Tap Tempo for Delay A, the LED flashes to indicate the selected BPM value
- **Footswitch C:** Tap Tempo for Delay B, the LED flashes to indicate the selected BPM value
- **Footswitch D**: Switches all modules into bypass, only the dry signal is put out (works in Play and Patch modes). LED is off in BYPASS. Step on D again to re-activate the previously active modules. The LED will be lit to indicate ACTIVE mode.

The Display on the wireless footswitch will indicate the Preset number in Patch Mode or "PL" in Play Mode.

If the Effects are active on the OMII, the LED on the wireless footswitch will blink to indicate their respective tempo.

## MIDI TABLES

The Ocean Machine II can receive MIDI signals but cannot generate its own MIDI commands.

Incoming MIDI commands can be routed through the OMII to the MIDI TRU port and forwarded to other devices.

Incoming Program Change signals (PC) can be used to recall presets. Incoming Control Change signals (CC) can be used to switch effects on/off, control parameter values, etc. (See table below.)

| Function | CC | Value Range |
|---|---|---|
| Reverb On/Off | 23 | 0-127 (OFF < 64 < ON) |
| Reverb type | 3 | 0-8 |
| Pre-Dly | 66 | 127 |
| Decay | 47 | 0-127 |
| R.Tone | 48 | 0-127 (Low pass: ≥ 73;<br>Flat: 55-72;<br>High pass: ≥ 54) |
| R.Mix | 49 | 0-127 |
| R.P1 | 50 | 0-127 |
| R.P2 | 51 | 0-127 |
| Delay A On/Off | 24 | 0-127 (OFF < 64 < ON) |
| Delay A Type | 12 | 0-8 |
| Feedback A | 52 | 0-127 |
| Time A | 53 | 0-127 |
| Sweep A | 54 | 0-127 |
| D.Mix A | 55 | 0-127 |
| A.P1 | 56 | 0-127 |
| A.P2 | 57 | 0-127 |
| Pingpong A | 58 | 0-127 (OFF < 64 < ON) |
| TempoA | 21 | 0-14 |
| Delay B On/Off | 25 | 0-127 (OFF < 64 < ON) |
| Delay B Type | 9 | 0-8 |
| Feedback B | 59 | 0-127 |
| Time B | 60 | 0-127 |
| Sweep B | 61 | 0-127 |
| D.Mix B | 62 | 0-127 |
| B.P1 | 63 | 0-127 |
| B.P2 | 64 | 0-127 |
| Pingpong B | 65 | 0-127 (OFF < 64 < ON) |
| TempoB | 20 | 0-14 |
| Looper In&Out | 26 | 0-127 (OFF < 64 < ON) |
| Rec/Dub | 27 | 0-127 |
| Play | 28 | 0-127 |

| Preset | Midi program No. |
|---|---|
| 1A | Midi program #1 |
| 1B | Midi program #2 |
| 1C | Midi program #3 |
| 2A | Midi program #4 |
| 2B | Midi program #5 |
| 2C | Midi program #6 |
| 3A | Midi program #7 |
| 3B | Midi program #8 |
| 3C | Midi program #9 |
| 4A | Midi program #10 |
| 4B | Midi program #11 |
| 4C | Midi program #12 |
| 5A | Midi program #13 |
| 5B | Midi program #14 |
| 5C | Midi program #15 |
| 6A | Midi program #16 |
| 6B | Midi program #17 |
| 6C | Midi program #18 |
| 7A | Midi program #19 |
| 7B | Midi program #20 |
| 7C | Midi program #21 |
| 8A | Midi program #22 |
| 8B | Midi program #23 |
| 8C | Midi program #24 |

| | | |
|---|---|---|
| Stop | 29 | 0-127 |
| Clear All | 30 | 0-127 |
| HalfSpeed | 31 | 0-127 (OFF < 64 < ON) |
| Reverse | 32 | 0-127 (OFF < 64 < ON) |
| Looper Level | 45 | 0-60 |
| Expression | 34 | 0-19 |
| Min Value | 35 | 0-100 |
| Trail On/Off | 70 | 0-127 (OFF < 64 < ON) |
| EQ On/Off | 36 | 0-127 (OFF < 64 < ON) |
| L.FREQ | 37 | 0-5 |
| BASS | 38 | 0-24 |
| MID | 39 | 0-24 |
| TREBLE | 40 | 0-24 |
| H.FREQ | 41 | 0-5 |
| Input Level | 42 | 0-100 |
| Output Level | 43 | 0-100 |
| Master Mix | 44 | 0-100 |
| Merge | 69 | 0-127 (OFF < 64 < ON) |
| R.Freeze | 4 | 0-127 (OFF < 64 < ON) |
| A.Freeze | 6 | 0-127 (OFF < 64 < ON) |
| B.Freeze | 5 | 0-127 (OFF < 64 < ON) |
| TAP Master | 71 | 0-127 |
| TAP A | 72 | 0-127 |
| TAP B | 73 | 0-127 |

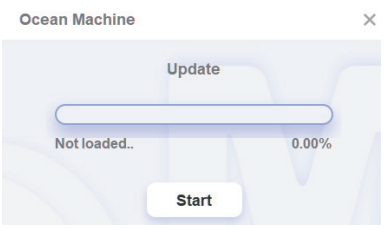
## FIRMWARE UPDATE

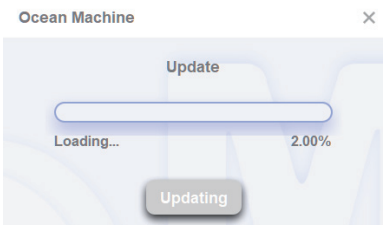
From time to time, MOOER will release new firmware updates for your Ocean Machine II which will include new features or bug fixes based on user feedback. The current firmware version of the OMII is shown in the **Reset** screen. (See *Reset* in the Settings menu)

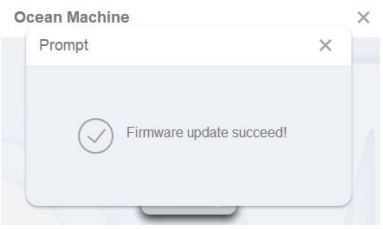
**Note**: A firmware update will reset all settings and stored presets to factory settings!

You will need a USB Type C to USB Type A cable to complete the firmware update.

- Download the latest update-software for the Ocean Machine II from the Download Center on the official MOOER Website ( https://www.mooeraudio.com/Downloads.html ) and install the application on your computer.
- Use the USB-C to USB-A cable to connect your computer to the USB port on your OMII.
- Disconnect the power supply on your OMII.
  **Press and hold the Menu knob while you re-connect the power supply**. The blue LED in the Preset button will blink quickly to indicate that the pedal is in **Firmware Update Mode**.
- Open the software on your computer and click **Start**. The update progress will be shown in a progress bar. (If the pedal is not in Update Mode, the software will show a connection error.)








- After a successful update, the pedal will power up into Play Mode and is ready for use again.

**Caution:** Do not disconnect the USB cable or the power supply on your pedal while an update is in progress. This could cause unexpected errors.

## SPECIFICATIONS

| | |
|---|---|
| **Input:** | 6.35 mm (1/4") TS audio interface, impedance 1 MΩ |
| **Output:** | 6.35 mm (1/4") TS audio interface, impedance 100 Ω |
| **External expression pedal:** | TRS device, impedance 10 kΩ - 50 kΩ |
| **Sampling rate:** | 44.1 k |
| **Sampling accuracy:** | 24 bit |
| **Power supply:** | 9 VDC, 500 mA power adapter (center negative) |
| **USB:** | Type C |
| **Dimensions:** | 215 x 127 x 56 mm (LxWxH) |
| **Weight:** | 1.1 kg |
| **Accessories:** | USB-C to USB-A cable, power adaptor, stickers, artist signature card |

Disclaimer: Parameter updates will not be notified separately.

