# 4BY8 MIDI LOOPER

Firmware Version 1.0

## CONNECTION

Connect the unit as follows:

#### **USB POWER**

If using the USB cord for power, connect to an appropriate USB compliant (5V) power source. This could be a USB powerbank for cordless operation.

#### **POWER**

If using the standard power port, connect to a 9V, center-positive adapter.

#### MIDI

You will need 2 standard MIDI cables.

Connect the 4by8 MIDI OUT port to your synthesizer's MIDI IN port.

Connect the 4by8 IN port to your MID controller's MIDI OUT port.

Remember: OUT to IN, IN to OUT.

## **POWER**

The unit will turn on when power is applied at either power connection. To turn the unit off, disconnect the power source. Note that your settings and loop(s) will be lost when power is disconnected.

## MIDI THROUGH

By default the unit passes all MIDI received on the IN port through to the OUT port. If you are using the same keyboard as controller and sound source, you will want to either:

- 1. Turn MIDI LOCAL OFF on your keyboard or –
- 2. Turn MIDI ECHO off on the 4by8 (see section later)

## **CONTROLS**

There are 2 controls:

- 1. REC button (Red button on the right of the unit)
- 2. FUNC button (Black button on the left of the unit)

There are 2 ways to interact with each button:

• Click – press and release the button in a short amount of time.

• Long Press – press and hold down the button for ½ second or more.

## RECORD A NEW LOOP

The 4by8 displays A100. This indicates that you are recording on Loop A, and 100% of the looper memory is available for recording.



Loop Mem Remaining

Click the REC button.

The metronome starts running, and a count is displayed (1-2-3-4 repeating). The "n" indicator indicates that the 4by8 is ready for recording. You can now rehearse the part you want to play.



Loop Count

When you are ready to begin, Click the Rec button again, and the display changes to:



Loop Count

When you are ready, begin playing. The display changes to show measures and beats.



Loop Meas Beat

When the loop reaches the 4<sup>th</sup> beat of the 4<sup>th</sup> measure, the loop restarts. If you continue to play, overdubbing occurs.

To stop recording and save the track, click the REC button. The loop continues to play.

To undo your recording, long-press the REC button. The metronome again displays a 1-4 count until you begin playing.

To stop loop playback, Long-press the REC button.

## OVERDUB ON AN EXISTING LOOP

Start the loop if it is not already playing by pressing the REC button.

Press the REC button. The display changes to show that the looper is armed for recording. Recording will begin the NEXT time the loop starts.



Loop Armed Meas Rest

If you want to hear the metronome, press REC again. The metronome plays, and the looper remains armed for recording. This display changes to:



Loop | Met | Meas | Beat

When the loop restarts, the display changes to:



Loop | Rec | Meas | Beat

Indicating that the looper is recording. Play your new part. When finished, click REC

To stop recording and save the track, click the REC button. The loop continues to play.

To undo your recording, long-press the REC button. Your part will be deleted, and the recorder continues to run.

To stop loop playback, Long-press the REC button.

## RECORDING SETTINGS

When you are in Record mode, long-press the FUNC button to access the recording settings. These settings are displayed in order:

- 1. Tempo. Adjust the tempo with FUNC and REC buttons. Long-press REC to access:
- 2. Quantize. Adjust the quantization of your recording with FUNC and REC buttons. Long-press REC to access:
- 3. Gate. Adjust the gate length of your recorded notes with the FUNC and REC buttons.

Long-press FUNC from any setting to return to RECORD mode.

#### CLEAR A LOOP

To clear a loop, first stop the loop, then long-press the REC button. The display shows:



And the loop is cleared.

## LOOPS AND TRACKS

4BY8 can record up to 4 loops, each with up to 8 tracks. Total memory capacity is 400 notes, which can be allocated in any way between the 32 tracks.

#### CHANGING LOOPS

When the looper is stopped, click the FUNC button to change loops. The displayed loop will be played when the looper starts again.

When the looper is playing, click the FUNC button to change loops. The display changes to show both the currently playing loop, and the next loop that will play:



Current | Next | Meas | Beat

The new loop will play the next time the loop starts over.

## TRACK MUTE / CLEAR

When the looper is playing or stopped, long-press the FUNC button to access the TRACK mode.

The 8 tracks are indicated with the top and bottom segments of the 4 digits in the LCD.

Select a track by clicking the Func button. Then:

- REC click Mute that track (if stopped) or mute on next loop (if playing)
  - o Muted tracks are indicated by the addition of a vertical segment on the display
- REC long-press Clear that track

## MIDI CHANNELS

The 4BY8 records on all 16 MIDI channels.

#### **SETTINGS**

Access the settings menu by long-pressing the FUNC button when the unit is in STOP mode. Then, select a setting by clicking the FUNC and REC buttons.

To select a setting to change, long-press the REC button.

Adjust a setting by clicking the REC and FUNC buttons.

To exit a setting, long-press the FUNC button.

To exit back to STOP mode, long-press the FUNC button again.

The settings are:

- 1. TRAC (Track) Mute and clear saved tracks.
- 2. TMPO (Tempo) Adjust the tempo of the loop. Move up and down in increments of 6 with the FUNC and REC buttons.
- 3. QUAN (Quantize) Set the recording quantization. Displayed based on the NOTE setting:
  - a. Q 32 / Q 6 Quantization to 32<sup>nd</sup> notes or sextuplets.
  - b. Q 16 / Q 3 Quantization to 16th notes or triplets.
  - c. Q 8 Quantization to 8th notes (no equivalent in triplet mode)
  - d. Q 4 Quantization to quarter notes.
- 4. GATE (Gate) Set the length of the recorded notes. Displayed based on the NOTE setting:
  - a. Goff No gate, notes are recorded at the length input
  - b. G 4 Quarter notes are recorded
  - c. G 8 Eight notes are recorded
  - d. G 16 Sixteenth notes are recorded
  - e. G 32 32<sup>nd</sup> notes are recorded
- 5. CLIC (Click) Set the metronome output:
  - a. CSPK Click through internal speaker
  - b. CMID Click on MIDI Channel 10
- 6. NOTE (Note) Set the length of the smallest recorded note:
  - a. N 4 4 notes per beat (16<sup>th</sup> notes)
  - b. N3 3 notes per beat (triplets)
- 7. BEAT (Beat) Set the number of notes per measure, from 2 to 7.
- 8. MEAS (Measures) Set the number of measures per loop, from 2 to 8.
- 9. ECHO (Echo) –Set MIDI Echo:
  - a. ECON Notes received at MIDI IN will be echoed to MIDI OUT.
  - b. ECOF Notes received at MIID IN will not be echoed to MIDI OUT.
- 10. CLOC (Clock) Set MIDI Clock behavior:
  - a. COff MIDI Clock is not sent or received
  - b. Crcv MIDI Clock/Start/Stop is received. When the 4by8 receives a MIDI Start signal, it will behave as though the REC button was clicked.
  - c. CSnd MIDI Clock/Start/Stop is transmitted. Use this when using the 4by8 as the master clock source.

## **FUNCTIONS AND MODES**

	FUNC		REC	
Mode	Click	LongPress	Click	LongPress
STOP	Change Loop	MENU	Loop Empty: RECORD Loop w/Data: PLAY	Clear Loop
RECORD	TEMPO	TRACK	PLAY	Undo Recording
PLAY	Change Loop	TRACK	RECORD	STOP
TEMPO	Tempo -6	RECORD	Tempo +6	
TRACK	Select Track	PLAY	Mute Track	Clear Track
MENU	Switch Setting	STOP	Switch Setting	SETTING
SETTING	Adjust Setting	MENU	Adjust Setting	