

LOOP CORE Users Manual

CORE SERIES



Thank you for choosing the **NUX Loop Core** pedal!

Loop Core allows you to record and create music phases and play back as loops! Whether you practice, compose, or play live gigs, you will get inspired by the well-considered functions of Loop Core!

Please take the time to read this manual carefully to get the most out of the unit. We recommend that you keep the manual at hand for future reference.

FEATURES

- Record and overdub as many layers as you need.
- Up to 6 Hours recording time.
- Mono or Stereo recording* (stereo input only via AUX IN jack).
- 99 user memories.
- Built-in rhythm tracks with 40 patterns.
- Change the playback tempo of your recorded phrases without changing the key.
- Switching phrases without latency.
- Extensional pedal (optional) for more control.
- Import and backup phrases with PC.
- Runs on batteries and AC adaptor.

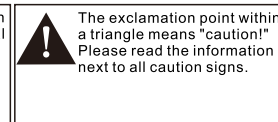
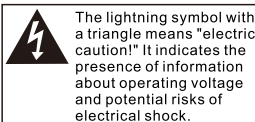
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Accuracy
Whilst every effort has been made to ensure the accuracy and content of this manual, Cherub Technology Co. makes no representations or warranties regarding the contents.

WARNING!-IMPORTANT SAFETY INSTRUCTIONS BEFORE CONNECTING, READ INSTRUCTIONS

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

CAUTION: To reduce the risk of fire or electric shock, do not remove screws. No user-serviceable parts inside. Refer servicing to qualified service personnel.

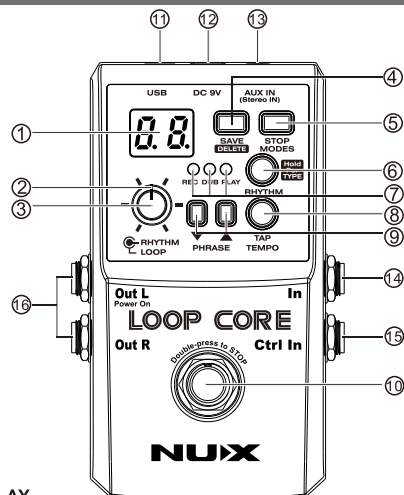
CAUTION: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



1. Use only the supplied power supply or power cord. If you are not sure of the type of power available, consult your dealer or local power company.
2. Do not place near heat sources, such as radiators, heat registers, or appliances which produce heat.
3. Guard against objects or liquids entering the enclosure.
4. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
5. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
6. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
7. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and at the point where they exit from the apparatus.
8. Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice "safe listening".

Follow all instructions and heed all warnings
KEEP THESE INSTRUCTIONS!

PRODUCT INTERFACE



1. **DISPLAY**
It indicates the memories and rhythm number, and other setting information.
2. **LOOP knob**
To adjust the playback volume level of the recorded audio.
3. **RHYTHM knob**
To adjust the volume level of the internal rhythm tracks.
4. **SAVE/DELETE button**
To save the current phrase or delete the phrase in current memory.
5. **STOP MODES button**
To select the way you want to stop during playback after you press pedal to stop. (see. 1.4 for details.)

6. **RHYTHM button**
This is for turning on/off the rhythm or selecting rhythm patterns.

7. **LED Lights**
REC: The red light indicates that you are recording.
DUB: The orange light indicates that you are overdubbing.
PLAY: The green light indicates that it's during playback of current phase.

During overdubbing, both DUB and PLAY will light up.

8. **TAP button**
Press this several times in time to set the tempo of rhythm. This can change the playback speed of a saved loop.

9. **Up and Down buttons**
For selecting memory numbers, rhythm patterns, and other setting options.

10. **Foot Switch**
To record, overdub, playback, and you also press this pedal to stop, undo/redo and clear recording. (Please see below instruction for details)

11. **USB Jack**
Connect the Loop Core to your PC with a mini USB cable to import or backup audio data. (See. 4.7)

12. **POWER IN**
Loop Core requires 9V DC/300 mA with center negative. Use the power supply with identical specifications. (i.e. Optional NUX ACD-006A)

13. **AUX IN (Stereo In)**
You can connect an extensional music playback device to input stereo music signal to Loop Core, and record the input music as a stereo loop.
Or, you can use a "Y" cable to input the stereo signal from your guitar effects or other instruments to Loop Core.

14. **IN jack**
This is a mono input. Plug your guitar to this jack.

15. **Ctrl In**
This is for connecting extensional pedals to stop playback, clear a phrase, switching memories, or do TAP tempo. (See. 3.7)

16. **Out L / Out R Stereo**
These output the signal to your guitar amp or mixer.
Out L is the main mono output. If you only input your guitar as mono signal, please use Out L.

IMPORTANT NOTICE: Out L works as the power trigger as well. Unplug the cable from Out L will turn off the power of Loop Core.

If you input stereo signal from AUX In, and the sound is only output from Out L to monaural system, the sound will be output as mono signal.

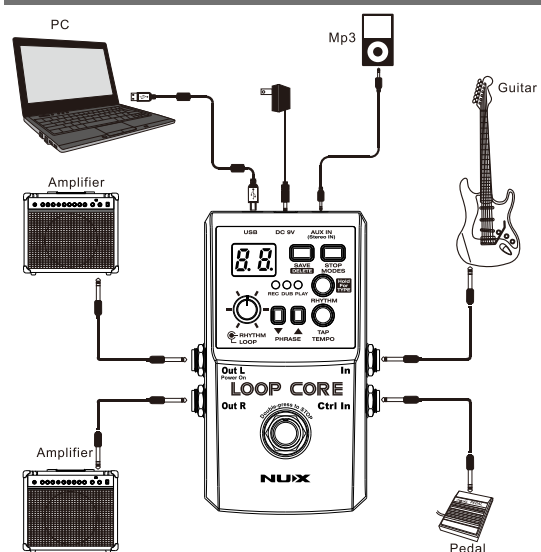
INSTALLING THE BATTERIES

Battery is supplied with the unit. The life of battery may be limited, however, since their primary purpose was to enable testing.

Insert the batteries as shown in figure, being careful to orient the batteries correctly.

1. Remove the old battery from the battery housing, and remove the snap cord connected to it.
2. Connect the snap cord to the new battery, and place the battery inside the battery housing.
3. When the battery run down, the sound of unit gets distort. If this happens, replace with new battery.
4. Battery life can vary depending on battery type.
5. The power comes on when you insert the connector plug into the OUT L jack.
6. The use of an AC adaptor is recommended as the unit's power consumption is relatively high.

CONNECTIONS



POWER ON/OFF

When running the unit on battery power, inserting a plug into the **OUT L** jack will automatically switch the unit on.
To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.

Once the connections have been completed, turn on power to your various device in the order specified. By turning on device in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

When powering up: Turn on the power to your guitar amp last. When powering down: Turn off the power to your guitar amp first.

NOTE: Loop Core will take a few seconds to run self-test and the display will show "SC" after it is powered on. It will return to normal status after self-test.

OPERATION INSTRUCTION

1. TO RECORD AND CREAT A LOOP PHRASE

- 1.1 **NORMAL RECORDING MODE** (Default)
 - 1.1.1 Select a empty memory location by pressing the **Up** and **Down** arrows.
The display shows the current memory number. A dot at the down right corner of the display means the current memory number already has data saved. If there is no dot, it means the current memory number has no data, and you can start to create a new loop and save it in this memory location.

- 1.1.2 **RECORD:** Press the pedal to start to record a loop.

- 1.1.3 **OVERDUB:** After a loop was recorded, you can record overdubs on it. Each time you press the pedal, the sequence is: **Rec - Play - Overdub**.

NOTE: You can change this sequence to: **Record - Overdub - Play** by following this:

While holding down the pedal, turn on the power by inserting DC jack and plug a cable in OUT L jack. The display will show "r d" or "r p", you can select either one by pressing the arrow buttons, and press the pedal once again to confirm.
"r d" for **Record - Overdub - Play**.
"r p" for **Record - Play - Overdub**.

NOTE: To overdub on the current phrase. Loop Core requires that the total remaining recording time must be longer than the time of current phrase. If the DUB LED light keeps blinking after you overdub, it means you cannot overdub under such status.
If the screen shows "FU", it means the memory is full and you are not able to record.

- 1.1.4 **STOP:** During playback or overdubbing, double-press the pedal (press the pedal twice within 1 sec) to stop.

1.2 AUTO RECORDING MODE

You can temporary set the Loop Core to Auto Recording mode by following below steps:

- 1.2.1 Under an empty memory slot, press and hold **STOP MODE** button for 2 sec, "R r" will be blinking on the display, press **STOP MODE** button again within 2 sec to change it to "R r" to enable Auto Recording mode.

- 1.2.2 Under this mode, the first time you press the pedal will enter recording standby status, and the REC LED will be blinking. It automatically starts recording as soon as it detects input sound signal from AUX In or Input jack.

- 1.2.3 Overdubbing and playback are the same as normal recording mode.

NOTE: Changing to Auto Recording mode only temporary functions for the current memory location. Switching to next memory number will go back to Normal Recording mode, which is the default mode for Loop Core.

1.3 UNDO/REDO/CLEAR

UNDO During overdubbing or playback, you can hold down the pedal for 2 sec to undo (cancel) the most recent overdubbing.

REDO During playback, press and hold the pedal for 2 sec can restore the overdubbing that you have just canceled.

* Redo is Only for restoring overdubbing. There will be a little dot displayed in the middle of the two digits to indicate that you have data that can be restored.

CLEAR You can clear all recording data in this memory by holding the pedal down for 2 sec while stopped. (Already saved data will not be cleared this way, which is different from DELETE (see 1.8))

1.4 STOP MODES

LOOP CORE has three stop modes that you can choose to finish the playback.

- 1.4.1 Before start playing a loop or during playback, you can press **STOP MODES** buttons to select the way you want the loop to end after you double-press the pedal.
 - "SL": instantly stops.
 - "FR": stop at the ending of this loop.
 - "RR": fade out and stop in 10sec.

- 1.4.2 If you choose "FR" or "RR", after you double-press the pedal during playback, the PLAY LED will start blinking until it finally stops. If you still want the loop to end instantly during the time when the PLAY LED is blinking, just quickly press the pedal once again.

1.5 SWITCHING MEMORY NUMBERS/LOOPS

You can press **Up** and **DOWN** buttons to switch memory numbers/loops, or using optional extensional pedal (see 3).

During playback, if you switch to another loop, the number of the chosen phrase will start blink, and when the current loop reaches its end, the chosen loop will start playing. **The transition has NO GAP, so it is perfect for creating a complete backing track that has verse and chorus!**

1.6 SAVE A LOOP TO MEMORY

Once you have created a music loop, you can save it to memory. You can save up to 99 memories. Each memory can be as long as you want until it reaches the memory limit. The memory limit of Loop Core is 4GB. Maximum recording time is about 6 hours.

- 1.6.1 Short press **SAVE** button and you will see the memory number and "SR" will be blinking on the display in turn.

- 1.6.2 Press **Up** or **Down** to choose an empty memory location (the down right corner of the display has no dot), and press **SAVE** again to confirm the storage. Or, you can press any button other than **SAVE** and **UP/DOWN** to abandon saving.

- 1.6.3 All the data including recordings, stop mode, tempo and the selected rhythm pattern will be saved. But recording mode will not be saved. Auto Recording mode can only be temporary set (see 1.2).

NOTE: You cannot save to a memory location that already has data. During step 1.6.2, if you press **UP** or **DOWN** button and the next memory number already has data, it will lead you to the closest empty memory location.

1.7 COPY A LOOP PHRASE

You may want to copy a saved loop to another memory location by following below steps:

- 1.7.1 Choose the memory loop that you want to copy.

- 1.7.2 Short press **SAVE/DELETE** button and you will see the memory number on the display start blinking.

- 1.7.3 Press **Up** or **Down** to choose an empty memory location (the down right corner of the display has no dot), and press **SAVE/DELETE** again to confirm the storage.

NOTE: If the remaining memory is not enough for copying the chosen loop, the display will show "FU".

1.8 DELETE A MEMORY

- 1.8.1 Press and hold the **SAVE/DELETE** button for two second, you will see "dL" blinking on the display.

- 1.8.2 Press **SAVE/DELETE** once again to confirm deleting. Or, you can press any button other than **SAVE/DELETE** to abandon deleting.

- 1.8.3 All the data including recordings, stop mode, tempo and the selected rhythm pattern will be deleted.

2. RHYTHM TRACKS

LOOP CORE has built-in rhythm tracks that with 40 patterns, ranging from metronome click to drum tracks that cover various music styles. You can use the rhythm to guide your recording, or even after you finishing recording, you can turn on the rhythm tracks, and it will smartly immediately find your beat and follow! Tap tempo button blinks to indicate the beat.

- 2.1 Press **RHYTHM** or **TAP TEMPO** button to turn on the rhythm. The default sound is metronome click. The RHYTHM button blinks to indicate the tempo. If you start the rhythm after the loop has been recorded, the Loop Core will automatically detect the tempo of the loop.

- 2.2 **TAP TEMPO** button lights up to indicate that you can use this to set tempo. If this button does not light up, it means tap tempo is not possible in such status, i.e. during recording or overdubbing.

- 2.3 Press and hold **RHYTHM** button for 2 sec, and you will see the pattern number blinking on the display.

- 2.4 Use **UP** and **DOWN** buttons to choose your favorite pattern.

- 2.5 Use **TAP TEMPO** button to set your desired tempo.

- 2.6 The default **time signature** of Loop Core is 4/4 beat. You can change it to 3/4 beat by:
 - 2.6.1 Only in an empty memory location, turn on the rhythm, press and hold the **TAP TEMPO** button until you see "4b" or "3b" blinking on the display.
 - 2.6.2 Press **Up** or **Down** button to switch between "4b" or "3b".
 - 2.6.3 Press **TAP TEMPO** again to confirm setting.

NOTE: Changing time signature to 3/4 is only valid for current memory.

You can only change time signature before you start record anything. It is not possible to change time signature if there is already recording.

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Rhythm			
01	Metronome	11	Hip-Hop 2
02	Hi-Hat	12	Pop
03	Rock	13	Pop 2
04	Rock 2	14	Fast Rock
05	Shuffle	15	Metal
06	Blues Rock	16	Latin
07	Swing	17	Latin 2
08	Country	18	Old TimesRock
09	Country 2	19	Reggae
10	Hip-Hop	20	Dance

3. USING EXTENSIONAL CONTROL PEDALS

You can plug in an extensional control pedal to the **Ctrl In** jack, i.e. Cherub **WTB-004 Pedal** (optional) to have more hand-free control during live performance:

- 3.1 Plug in the WTB-004 to Ctrl In jack on Loop Core with the WTB-004 **NOT pressed** for at least 1 second, so that the Loop Core can recognize the pedal.

- 3.2 **Stop:** short press the WTB-004 once to stop during recording, overdubbing and playback. Same as double-press the pedal of Loop Core.

- 3.3 **TAP TEMPO:** press WTB-004 several times in time to set the tempo while stops.

- 3.4 **Clear Loop:** press and hold the WTB-004 will clear all the recordings that have not saved.

- 3.5 You can connect two WTB-004 pedals to Loop Core if you use a "Y" shape cable like this:



Then one WTB-004 will function like above, the other WTB-004 can be used to switch memory numbers:

- 3.5.1 Short press the second WTB-004, it switched to next memory number, same as pressing the **Up** button.

- 3.5.2 Press the second WTB-004 twice in one sec will switch to the previous memory number, same as you press **DOWN** button.

NOTE: Do not switch the slide-switch of WTB-004 after you connect it to loop Core.

4. USB CONNECTION

Connect a USB cable (like the USB cable for digital cameras) between Loop Core and your PC, and turn on the power of Loop Core by connecting the power adaptor and plug a cable into Out L. The display of Loop Core will show "UL" when it is connected successfully. Now you can import WAV files to Loop Core, or backup the recording phrases from Loop Core to your PC:

- 4.1 To import a WAV file to Loop Core
 - 4.1.1 Click and open the Removable Disk of Loop Core, and open the "Cherub" folder.
 - 4.1.2 Open the **WAV** folder, and there will be 99 folders for 99 memory numbers: "W001", "W002" ... "W099". Choose one empty folder that you want to import a WAV file to. For example: folder "W031".

- 4.1.3 Copy the WAV file from your computer to the folder "W031", and rename this WAV file to "w031.wav".

- 4.1.4 This WAV file is imported successfully and can be played as a loop in memory number 31 in Loop Core.

NOTE: Loop Core accept WAV file that is 16-bit, stereo 44.1kHz.

- 4.2 To backup up and recover phrases from Loop Core to your PC
 - 4.2.1 Copy the "Cherub" folder to your PC to back up.
 - 4.2.2 Copy the "Cherub" folder from your PC to replace the Cherub folder in Loop Core drive to recover.

IMPRTANT: The **SAVE/DELETE** button blinks when data is being transferring. Do NOT cut the power by disconnecting the power cable or unplugging the cable from Out 1 jack whenever the Loop Core is processing data.

NOTE: Changing time signature to 3/4 is only valid for current memory.

You can only change time signature before you start record anything. It is not possible to change time signature if there is already recording.

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- 5.2 Press and hold **Up** or **Down** button for 2 sec until the display shows "Fo".

- 5.3 Press the pedal once again to confirm formatting. Or, press any other buttons other than the pedal to abandon formatting.

WARNING: Formatting the Loop Core will wipe away all recordings from Loop Core and set everything to factory settings. Be sure to back up all your data before you format the Loop Core! During formatting, loop core will run self-test and the display will show "SL" until formatting is completed.

SPECIFICATIONS

- Sampling Frequency: 44.1K
- A/D converter: 20bit
- Signal Processing: 16bit
- Frequency response: 0hz—20khz
- INPUT impedance: 1Mohm
- AUX IN impedance : 33kohm
- OUTPUT impedance: 10kohm
- Display: LED
- Power: 9V DC Negative Tip (9V Battery, ACD-006A Adapter)
- Current draw: 78mA
- Dimensions: 122(L)x64(W)x48(H)mm
- Weight: 265g

PRECAUTIONS

- Environment:
 1. Do NOT use the pedal in high temperature, high humidity, or subzero environments.
 2. Do NOT use the pedal in the direct sunlight.
- Please do NOT disassemble the pedal by yourself.
- Please keep this manual for future reference.

ACCESSORIES

- Owner's manual
- 9V battery

THE FCC REGULATION WARNING (for U.S.A.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off or on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CE mark for European Harmonized Standards

CE Mark which is attached to our company's products of Battery mains the product is in fully conformity with the harmonized standard(s) EN 61000-6-3:2007+A1:2011 & EN 61000-6-1:2007 Under the Council Directive 2004/108/EC on Electromagnetic Compatibility.



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