

Ditto X2 Looper

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Product	Ditto X2 Looper
Product (firmware) version	1.0
Document	English Manual
Document version / date	2014-11-20

Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as 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.

Caution

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

Service

- All service must be performed by qualified personnel.

Warning

- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.
- Do not install this device in a confined space.

EMC/EMI

Electromagnetic compatibility/
Electromagnetic interference

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 residential installations. 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 and 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.

For customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Explanation of graphic symbols



The lightning bolt triangle is used to alert the user to the presence of uninsulated “dangerous voltages” within the unit’s chassis that may be of sufficient magnitude to constitute a risk of electric shock to humans.



The exclamation point triangle is used to alert the user to presence of important operating and service instructions in the literature accompanying the product.

About this manual

This manual will help you learn understanding and operating your TC product.

This manual is only available as a PDF download from the TC Electronic website.

Of course, you can print this manual, but we encourage you to use the PDF version, which has both internal and external hyperlinks. For example, clicking the TC Electronic logo in the upper left corner of each page will take you to the table of contents.

To get the most from this manual, please read it from start to finish, or you may miss important information.

To download the most current version of this manual, visit tcelectronic.com/support/manuals/

Enjoy your TC product!

Introduction

Ditto X2 Looper is the logical heir to the looping throne after the smash hit Ditto Looper. It houses all the features that made the original Ditto Looper such a success – and then some!

New to Ditto X2 Looper is a user interface sporting two footswitches. The **FX footswitch** allows you to trigger two types of loop effects: “**Reverse**” and “**Half speed**”. This second footswitch can also be used as a dedicated stop switch – allowing you to stop and delete loops on stage more effectively. You can **export and import loops** to and from your PC or Mac, allowing you to use your creations in your DAW or prepare complex backing tracks for use on stage. Last but not least, Ditto X2 Looper features **stereo inputs and outputs**

Of course, Ditto X2 Looper sports the same features that made the original Ditto such a success:

- five minutes of looping time,
- unlimited overdubs,
- overdub undo/redo,
- true-bypass, analog dry-through design and
- 24 bit uncompressed high quality audio.

Setup

Ready...

The Ditto X2 Looper box should contain the following items:

- 1 **Ditto X2 Looper pedal**
- 2 **rubber feet** for “non-velcro” pedalboard mounting
- 1 **USB cable** (for transferring loops from and to a computer and for updating the pedal firmware)
- 1 “**Quick Start Guide**” sheet
- 1 **TC Electronic sticker**
- 1 leaflet about TC’s guitar FX product range

Inspect all items for signs of transit damage. In the unlikely event of transit damage, inform the carrier and supplier.

If damage has occurred, keep all packaging as it can be used as evidence of excessive handling force.

Set...

- Connect a 9V power supply delivering a minimum of 100 mA with the following symbol to the DC input socket of Ditto X2 Looper.



! Please note that Ditto X2 Looper does not come with a power supply.

- Plug the power supply into a power outlet.
- Alternatively, you can operate Ditto X2 Looper using one or two 9V batteries. Ditto X2 Looper has two battery slots. You can operate the pedal using only one battery, but using two batteries will prolong operation time.
- Connect your instrument to the MONO input jack on the rear of the pedal using a ¼” jack cable. You can also feed the pedal with a stereo signal by using both INPUT jacks.
- Connect the MONO output jack on the rear of the pedal to your amplifier using a ¼” jack cable. You can also send a stereo signal from the pedal to the next device in the signal chain by using both OUTPUT jacks. For more complex setups, see “Setup examples” on page 5.

Let’s get loopin’!

If you are in a hurry, chances are you’ll find what you’re looking for in this overview.

Operation

Power up Ditto X2 Looper	Connect a power supply or insert a battery.
Record	Tap the LOOP footswitch once.
Switch to playback	Tap the LOOP footswitch again.
Undo/Redo last recording	Press and hold the LOOP footswitch.
Stop	Double-tap the LOOP footswitch <i>or</i> Tap the FX footswitch (FX selector has to be set to “Stop”)
Stop & clear the loop	Double-tap and hold the LOOP footswitch <i>or</i> Tap and hold the FX footswitch (FX selector has to be set to “Stop”)
Resume playback	Tap the LOOP footswitch again.
Engage Reverse effect	Tap the FX footswitch (FX selector has to be set to “Reverse”)
Engage ½ Speed effect	Tap the FX footswitch (FX selector has to be set to “½ Speed”)

Setup examples

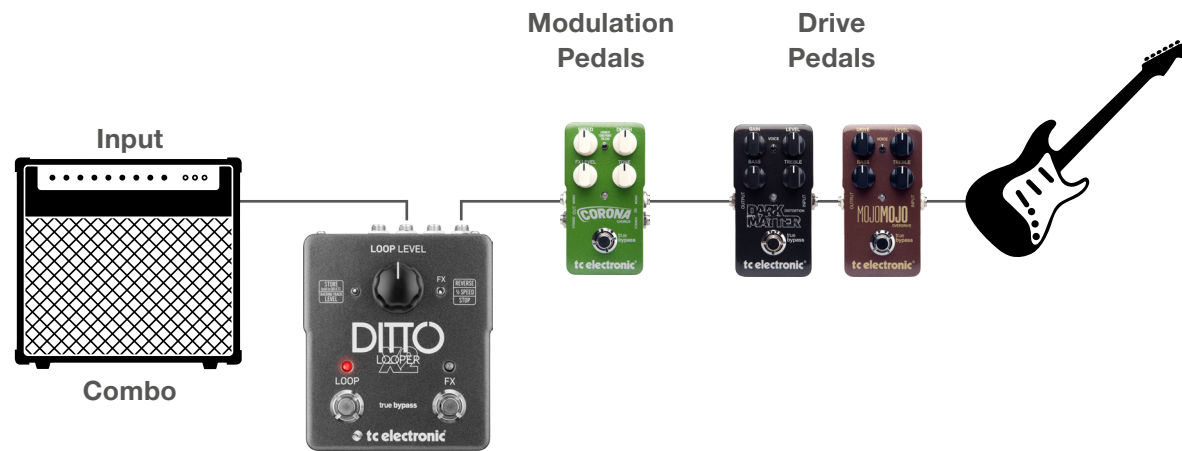
Setup example 1: Basic looping – no effects

This is the most basic mono setup: your instrument, Ditto X2 Looper and your amp.



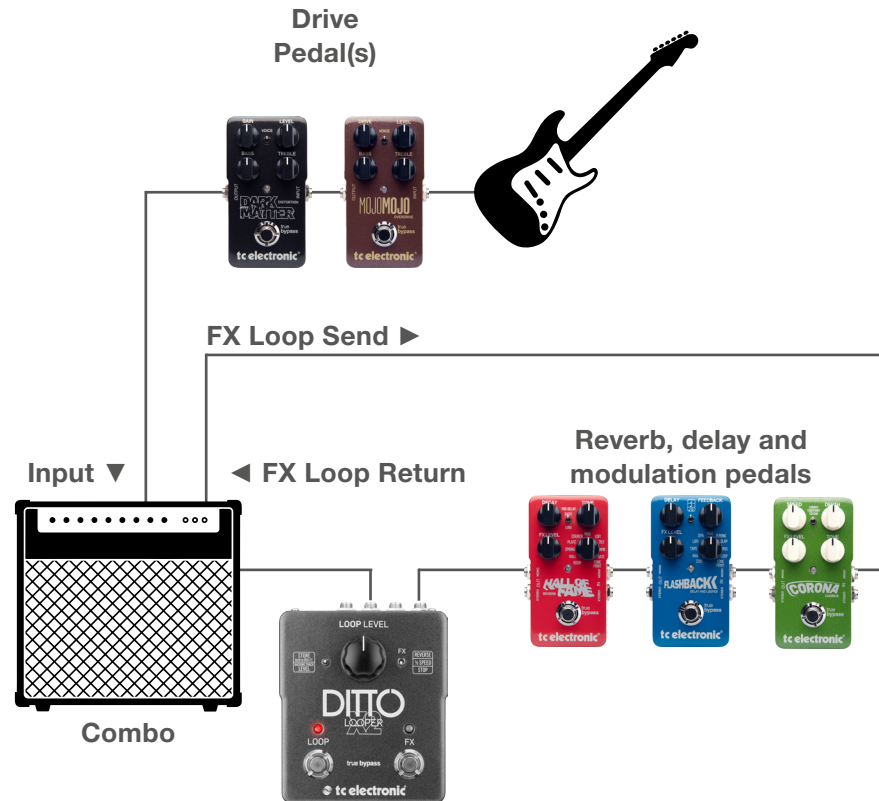
Setup example 2: Ditto X2 Looper and effects

Place your effects before Ditto X2 Looper. This will allow you to create and record different sounds within the same looping session simply by switching your effects on and off.



Setup example 3: Ditto X2 Looper in an FX loop

If you are using an amp equipped with an FX loop, place your modulation effects and Ditto X2 Looper in that FX loop. Again: To get the most out of your setup, place Ditto X2 Looper at the *end* of the FX loop. This gives you the flexibility to add parts with or without signal processing by simply switching effects on and off as required.



Setup example 4: Dual amp setup

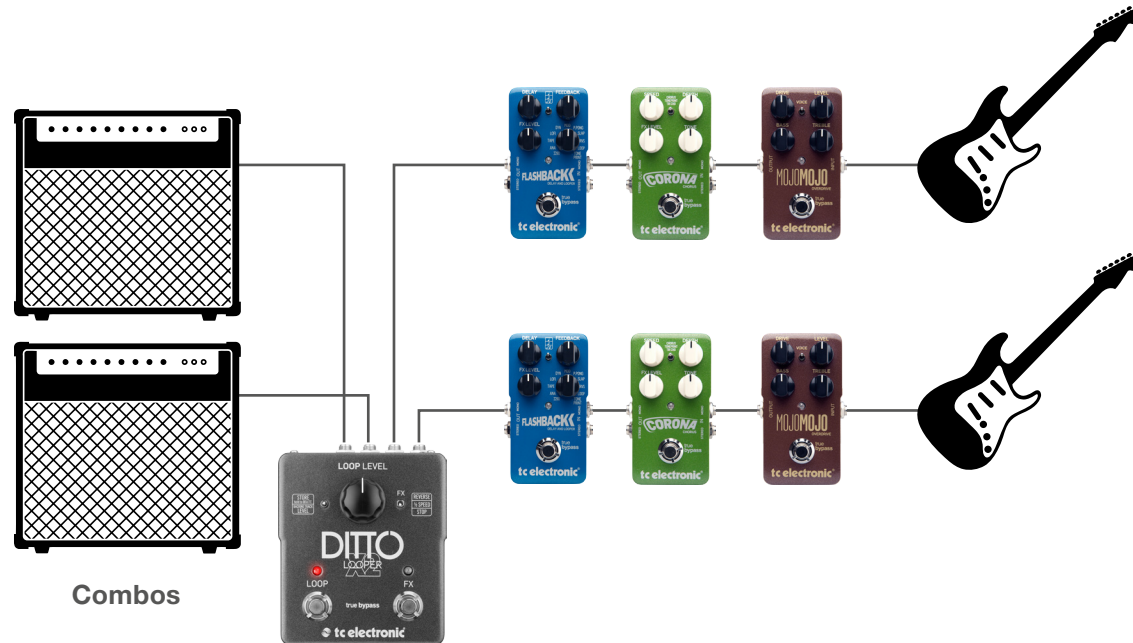
Got two amps? Feed'em!



Setup example 5: Dual mono with two instruments

As they say: Two can play!

Share the love (i.e., your Ditto) with another guitar (or bass) player. You'll just have to agree on who gets to hit the LOOP footswitch...



Inputs, outputs, controls



1. Power input

The power input of this pedal is a standard 5.5/2.1 mm DC plug (centre = negative). To power up your pedal, connect a power supply to its power input socket. Ditto X2 Looper requires a 9V power supply providing 100 mA or more (not supplied). To minimize hum, use a power supply with isolated outputs. You can also run Ditto X2 Looper using batteries.

2. Audio inputs

This pedal has two standard 1/4" jack (mono/TS) inputs for stereo operation. If your signal source is mono (e.g. a regular guitar or a mono effect pedal), connect it to the MONO input. For other setups, see "Setup examples" on page 5.

3. Audio outputs

This pedal has two standard 1/4" jack (mono/TS) outputs for stereo operation. If the next device in the signal chain is mono, connect it to the MONO output. For other setups, see "Setup examples" on page 5.

4. LOOP footswitch and LED

Use this footswitch to control all loop-related functions of the pedal (record, playback, undo/redo, clear). See "Creating loops" on page 11.

5. FX footswitch and LED

Use this footswitch to either control one of Ditto X2 Looper's built-in effects (see "Using effects" on page 18) or to stop loop playback. The assignment of this footswitch is determined by the setting of the FX selector switch.

6. Loop / backing track level control knob

Use the Loop level control knob to control the level of your loops. Use the Loop level control knob while holding down the Store / Backing track level switch to control the level of your backing track. See "Balancing backing track and current loop levels" (page 16).

7. Store / Delete / Backing track level switch

- To **store** the current loop as a backing track, nudge this switch up.
- To **delete** the stored loop/backing track, hold this switch in the up position for three seconds.

- To **set the level** of the backing track, turn the Loop level control knob while holding this switch in the down position.

The difference between current loop and the stored backing track is explained in "Current (in-memory) loop vs. stored loop (backing track)" (page 14).

8. FX selector switch

Use this switch to determine the function of the FX footswitch. Available settings are:

- **Reverse:**
FX footswitch toggles the Reverse effect on and off.
- **1/2 Speed:**
FX footswitch toggles the Half speed effect on and off.
- **Stop:**
FX footswitch acts as a dedicated stop footswitch. For the advantages of using the FX footswitch as a dedicated Stop footswitch, see "Deleting the loop when you are not recording or playing back" (page 12).

9. USB port

Connect Ditto X2 Looper to a computer to transfer loops between your computer and Ditto X2 Looper. If there should be firmware updates for this device, they can also be installed using the USB port.

Creating loops

Recording your first loop

Important: On the following pages, operation is described based on the *default* operation mode of Ditto X2 Looper (Record loop > Playback > Record overdubs). You can also use an alternative operation mode. See “Setting operation mode” (page 13).

To start recording, press the LOOP footswitch once. The LED will light up in red, indicating Ditto X2 Looper is in Record Mode.

At the end of the loop (for example, after eight bars), press the LOOP footswitch again.

The LED will turn green, and Ditto X2 Looper will repeat the loop continuously. The LED will blink every time Ditto X2 Looper reaches the starting point of the loop.

Your loop can be up to five minutes long!

Setting loop playback volume

To change the playback volume of the loop you just recorded, adjust the knob labelled “Loop Level”.

The Loop Level knob only controls loop playback level – it has no influence on the signal from your instrument.

Overdubbing

When you’re happy with your original loop, you can start overdubbing.

To record another take (overdub), press the LOOP footswitch again while the original loop is playing back. The LOOP footswitch LED will turn red, indicating you’re in Record mode again.

When you’re done, press the LOOP footswitch once more to quit Record mode.

Ditto X2 Looper will repeat the loop with both the original recording and the overdub.

Please note that the length of the loop will never increase when overdubbing. When you continue playing, you will simply create additional overdubs. You can record as many overdubs as you like – there is no limit.

Undo (clearing the last take)

To undo the last take you recorded (i.e., remove it), simply press and hold the LOOP footswitch for 1.5 seconds or longer during playback.

The LED will blink twice in rapid succession, and the last take will be cleared (removed). Previously recorded takes will stay intact.

Redo (restoring a previously cleared take)

If you have cleared (removed) the last take using Undo and you changed your mind, you can restore that take. To do so, simply press and hold the LOOP footswitch for 1.5 seconds or longer during playback.

The LED will blink twice in rapid succession, and the previously deleted take will be restored.

Using Undo/Redo creatively

Undoing and redoing overdubs can be used for more than just correcting mistakes. You can make your performance more interesting by removing and bringing back sections. Here is a simple example:

- Record a bass line (loop cycle 1).
- Record some chords (loop cycle 2).
- Record a melody (loop cycle 3).
- Press and hold the LOOP footswitch to clear the last take, i.e., remove the melody. Improvise or record something else.
- Press and hold the LOOP footswitch again to bring back the previously cleared melody.

Please note that undoing or redoing by using the LOOP footswitch is only possible during playback. If you hold down the LOOP footswitch after you have stopped loop playback or recording, you will delete the full loop, including all overdubs!

Stopping loop playback/recording

To stop loop playback, press the LOOP footswitch twice in short succession.

To stop recording, press the LOOP footswitch once.

If you have set the small FX selector switch to “Stop”, you can use the FX footswitch to stop loop playback.

The LED will start flashing in green to indicate that your loop is still in memory and ready for playback.

Stopping loop playback/recording and deleting the loop/backing track

To stop loop playback/recording and delete everything you have recorded, press the LOOP footswitch twice in short succession and hold down your foot on the second tap. Please note that it takes three seconds until the backing track is actually deleted.

If you have set the small FX selector switch to “Stop”, you can use the FX footswitch to stop and delete the loop. The advantage of having a dedicated Stop footswitch is that it’s easier to stop loop playback exactly when you need to, as you only need to hit this dedicated footswitch once.

The LED will turn off to indicate that the loop has been deleted. At this point, you can start recording loops from scratch again.

Deleting the loop when you are not recording or playing back

To delete everything you have recorded (instead of just removing the last take) when you are not recording or playing back, press and hold the LOOP footswitch.

If you have set the small FX selector switch to “Stop”, you can use the FX footswitch to delete the loop in the same manner.

! When you delete a loop by pressing and holding the *LOOP* footswitch, playback will start before the loop is actually deleted. This simply cannot be avoided, because hitting the LOOP footswitch triggers playback before Ditto X2 Looper „realizes“ that you actually want to delete the loop. If you assign the Stop function to the FX footswitch instead, you will not experience this effect – the loop will be cleared silently.

The LED will flicker red and then turn off to indicate that the loop has been deleted.

When you delete your loop from Ditto X2 Looper, the device goes into True Bypass mode.

Other than clearing the last overdub (which can be undone), deleting the full loop as described in this section cannot be undone.

Setting operation mode

(“Record loop>Playback>Record” overdubs vs. “Record loop>Record overdubs>Play”)

Looping means creating music in real-time. This process should be fun and intuitive. But one guy’s “intuitive” is another guy’s “weird”. This is why we give you the opportunity to choose your preferred method.

Some musicians prefer this workflow:

1. Press a footswitch to start recording.
2. Press it again to switch to playback.
3. Press it a third time to create additional takes (overdubs).
This is Ditto X2 Looper’s *default mode*.

Other people prefer this method:

1. Press a footswitch to start recording.
2. Press it again to switch from recording your original loop to creating additional takes (overdubs) right away.
3. Press it a third time to go to playback.

With Ditto X2 Looper, you can choose your preferred method.

To switch to the alternative operation mode (“Record loop>Record overdubs>Play”), do this:

- Unscrew the cross-head screw on the back of the pedal and detach the backplate.
- If there is a battery in the right battery compartment, remove it.
- You will see two dip switches on the right side of the battery compartment. By default, both switches will be “up” – i.e., both dip switches will face towards the top of the pedal.
- Use a toothpick to set the dip switch labelled “2” to the “down” position, so it is facing towards the bottom of the pedal.
- Re-insert the battery/batteries.
- Remount the backplate.

Storing, importing and exporting loops

Current (in-memory) loop vs. stored loop (backing track)

Ditto X2 Looper is very flexible when it comes to recording, importing and exporting audio loops.

When you are recording something, this is the **current loop**. It will be available even after powering down Ditto X2 Looper.

In addition to the memory that holds the current loop, there is an on-board **storage module** (similar to a hard disk or a USB flash drive). This storage module is used to transfer loops (or even complete backing tracks) from and to your computer/DAW.

You can set playback volume for the in-memory loop and the stored loop (backing track) independently – see “Balancing backing track and current loop levels” (page 16).

In this chapter, you will learn how to use this feature effectively.

Current loop stays in memory

When you power down Ditto X2 Looper and there is still a loop in memory, this loop will be available even after you power down the device.

When you power up Ditto X2 Looper again, the LOOP footswitch LED will flash green, indicating your previously recorded loop is available. Just hit the LOOP footswitch, and playback will start. If you want to start from scratch instead, delete the loop (see “Stopping loop playback/recording and deleting the loop/backing track” on page 12).

USB operation vs. looping

The following sections (“Exporting Ditto X2 Looper loops to a computer” and “Importing loops into Ditto X2 Looper from a computer”) describe how you can connect Ditto X2 Looper to a computer using the supplied USB cable to import or export loops and backing tracks.

Please note that once you have attached it to a computer, your Ditto X2 Looper effectively becomes a USB storage device, and audio is disabled. This means that you can transfer audio files to and from Ditto X2 Looper – but you cannot play back (or record) audio at the same time. Ditto X2 Looper does not act as a USB audio interface. This means that to get back to looping, you will have to unplug/eject Ditto X2 Looper.

On computers running Microsoft Windows or Apple OS X operating systems, no software is required for accessing Ditto X2 Looper as described in this section – it’s all plug & play.

Exporting Ditto X2 Looper loops to a computer

Never let a great loop go to waste!

If you have created a really great loop (e.g. a song idea or a beautiful riff), you may want to reuse it. Now you could simply record the signal coming from Ditto X2 Looper's audio outputs to your DAW – but this could lead to signal quality degradation and requires post-editing (trimming) the recording. This is why Ditto X2 Looper allows you to export your loops in pristine quality.

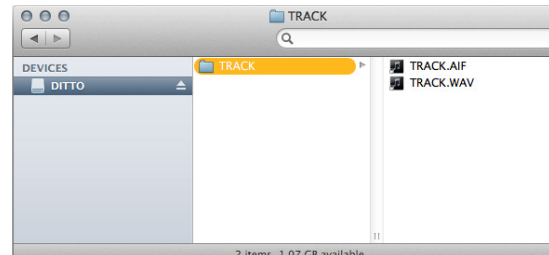
1. When you are happy with your loop, nudge the Store / Backing track level switch up briefly.



This will store the current loop within the device in a format (actually, two formats) that can easily be transferred to a computer.

After storing the current loop, please wait a few seconds before connecting the pedal to your computer.

2. Connect a USB port on your computer to the USB port of Ditto X2 Looper using the supplied USB cable. The LOOP footswitch LED will start blinking orange, indicating that Ditto X2 Looper now is in USB transfer mode, and audio will be disabled.
3. Your computer will recognize Ditto X2 Looper as an external USB storage device. It will be shown in the Finder (OS X) or Windows Explorer as a drive called "DITTO" containing a folder called "TRACK".



The "TRACK" folder should hold two files: "TRACK.AIF" and "TRACK.WAV". These files contain the loop that you have previously stored (see step 1) in both AIFF and WAV formats. AIFF is commonly used in OS X, while WAV is the commonly used format for Microsoft Windows.

Please refer to the instruction manual of your DAW to learn which format you should use.

4. Copy the respective file ("TRACK.AIF" or "TRACK.WAV") to your computer, e.g. by dragging it from the "TRACK" folder to the desktop. Wait for the file transfer to finish.
5. On a Windows PC, eject the "DITTO" drive by clicking it with the right mouse button in Windows Explorer and selecting "Eject" from the context menu.
On a Mac, eject/unmount the "DITTO" drive by selecting it and pressing [Cmd] and [E] simultaneously.
6. Disconnect Ditto X2 Looper from your computer.
The LOOP footswitch LED will stop blinking orange and return to green, and audio will be enabled again.

About audio formats

Ditto X2 Looper saves audio files in 32 bit floating point format. If your DAW does not support this AIFF/WAV "flavor" – or if it doesn't support AIFF or WAV at all – you will have to convert the files coming from Ditto X2 Looper to a supported format.

Please consult your DAW's manual or support pages to find out which audio formats it supports. You should then be able to find a free audio format converter – either as an application for your operating system or as an online service.

If nothing else works, you can simply record the signal from Ditto X2 Looper's audio outs into your DAW.

Importing loops into Ditto X2 Looper from a computer

Did you find (or create) an insanely great song that you would like to use on stage as a backing track? Well, with Ditto X2 Looper, you can – without having to schlep your notebook on stage. All you have to do is transfer your backing track or base loop from your computer to Ditto X2 Looper using a USB connection.

1. Create a loop in your DAW and export it as an audio file in either AIFF or WAV format.
2. Connect a USB port on your computer to the USB port of Ditto X2 Looper using the supplied USB cable. The LOOP footswitch LED will start blinking orange, indicating that Ditto X2 Looper now is in USB transfer mode, and audio will be disabled.
3. Your computer will recognize Ditto X2 Looper as an external USB storage device. It will be shown in the Finder (OS X) or Windows Explorer as a drive called “DITTO” containing a folder called “TRACK”.
4. Copy your audio file (in AIFF or WAV format) from your computer to Ditto X2 Looper by dragging it to the “TRACK” folder of the “DITTO” drive. Wait for the file transfer to finish.
5. Eject/unmount Ditto X2 Looper as described in “Exporting Ditto X2 Looper loops to a computer” (page 15).
The LOOP footswitch LED will flicker as the loop is read.
6. Disconnect Ditto X2 Looper from your computer.
The LOOP footswitch LED will stop blinking orange and return to green, and audio will be enabled again.

Importing MP3 files to Ditto X2 Looper

Usually, you will want to import AIFF or WAV files into Ditto X2 Looper: This will give you the highest possible audio quality, and no conversion is required. However, you can also import MP3 files with a 44.1 kHz sampling rate. Ditto X2 Looper will convert an imported MP3 file to AIFF and WAV format.

The procedure is the same, with the following exceptions:

- Converting an MP3 file takes some time. During conversion, the LOOP footswitch LED will flicker red. Converting a long (6 minute) MP3 file will take about 90 seconds.
- Importing tight/short MP3 loops with MP3 metadata will add a few milliseconds of silence to the end of the loop. If you want to ensure seamless, sample-accurate playback, please use files in AIFF or WAV format.

Notes about working with imported backing tracks

- Levels of imported backing tracks are reduced, so you can jam to these tracks and hear yourself.
- Track/file names of imported loops/backing tracks are irrelevant, as long as the suffix (“.WAV” or “.AIF”) is correct.
- You only have to delete existing backing tracks if you need to make room for new tracks. If there are several tracks in the TRACK folder, the last imported track will be used.

Balancing backing track and current loop levels

What you are recording with Ditto X2 Looper is called “the current loop”. If you store this current loop (by using the Store / Backing track level switch), or if you import a previously recorded track from a computer as described in the previous section, this is a “backing track”.

You can set the volume for the current loop and the backing track independently.

- To set the level of the *current loop*, turn the LOOP LEVEL knob.
- To set the level of the stored *backing track*, turn the LOOP LEVEL knob while pulling the Store / Backing track level switch towards you.



The ability to control the volume of the current loop and the backing track independently allows you to control the mix very effectively.

Jam Track Central tracks

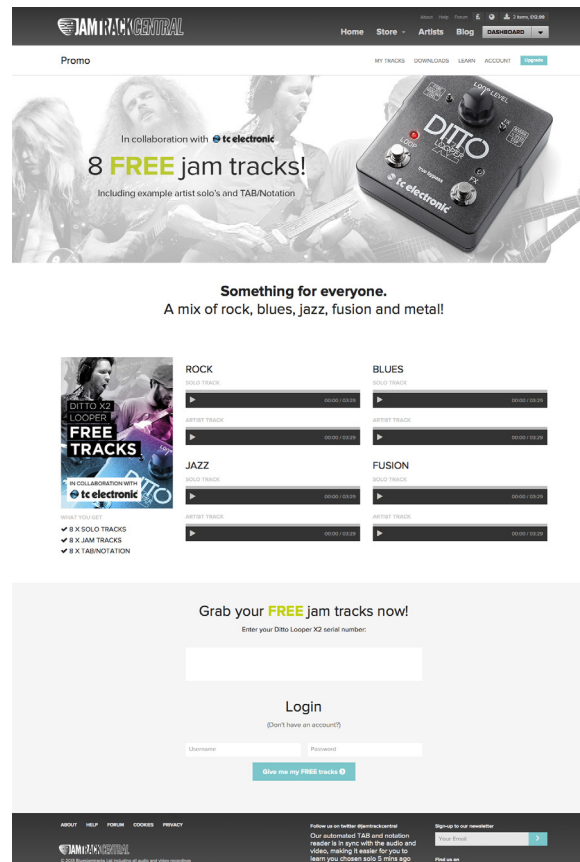
We know, we know: Playing with yourself is fun. But how about spicing things up a bit with some top-notch backing tracks?

TC Electronic has collaborated with the team at Jam Track Central to give you a package containing some of the best backing tracks available. These tracks are expertly recorded, they feature solos by top guitarists and – best of all – they come **free of charge** with your Ditto X2 Looper.

About Jam Track Central

Jam Track Central is the home of high quality, original artist jam track and album backing packages. Featuring content from artists such as Guthrie Govan, Andy James, Jeff Loomis, Alex Hutchings, Zakk Wylde and many more, they deliver content that is designed to get you inspired, learning and jamming.

Every product comes with the solo track, jam (or backing) track and tab/notation, plus in many cases the live video performance by the artist. Brand new content is released every single week, plus there are more and more new artists getting involved each month too.



Free Jam Track Central tracks will be available for every Ditto X2 Looper owner on the JTC site starting February 7, 2014.

Downloading your free Jam Track Central tracks

You need to have (or register) a free Jam Track Central account to access your free tracks.

- Go to jamtrackcentral.com/promo/dittox2. You can also scan the QR code on your Ditto X2 Looper product box with your smartphone.
- Enter your Ditto X2 Looper’s serial number.
- Enter the e-mail address and password for your Jam Track Central account.
- If you *don’t* have a Jam Track Central account yet, click on “Don’t have an account?” and follow the instructions for creating your free account.
- Click on “Give me my free Jamtracks”.
- For more information, see jamtrackcentral.com/help/

What you’ll get

Every registered X2 owner gets access to the solo tracks, jam tracks and tab/notation files for these songs:

- Andy James: “Drive”
- Dave Lockwood: “Gone So Long”
- Denny Ilett: “Lazy Day Blues”
- Dominic Dawes: “Bluesy Jazz”
- Jan Cyrka: “Blow Your Top”
- Jan Cyrka: “Clapton Smoky”
- Jan Cyrka: “Johnny Winter Style”
- Luke Roberts: “Roundhouse”
- Paul Harvey & Martin Miller: “Sassafra’s”

Please note that Jamtrackcentral.com owns the full rights to all of these tracks. Only use them as specified on their Terms & Conditions page.

Using effects

What's even more fun than working with loops? Using time-based effects to spice things up!

Applying effects to your Ditto X2 loops is easy. Just press the FX footswitch to apply an effect.

Two time-based effects are available: "Reverse" and "Half Speed".

Using the Reverse effect

- Set the small FX selector switch right to the LOOP Level knob to "Reverse".
- Record a loop.
- Press the FX footswitch to activate the effect. The FX footswitch will light up red, and Ditto X2 Looper will immediately start playing back the loop (including all takes) in reverse.
- To return to regular (forward) loop playback, tap the FX footswitch again.

Using the Half Speed effect

- Set the small FX selector switch right to the LOOP Level knob to "½ Speed".
- Record a loop.
- Press the FX footswitch to activate the effect. The FX footswitch will light up green, and Ditto X2 Looper will immediately slow down loop playback (including all layers) to half speed.
- To return to the original loop playback speed, tap the FX footswitch again.

Combining Reverse and Half Speed effects

You can apply both effects to a loop and switch them on and off independently. There are two ways to do this.

Working with two effects – method 1

- Set the FX selector switch to the first effect you want to apply (e.g. "Reverse").
- Press the FX footswitch. The effect will be activated, and the FX footswitch LED will light up (red for the Reverse effect).
- Set the FX selector switch to the other effect ("½ Speed") and press the FX footswitch again. The second effect will be applied, and the FX footswitch LED will alternate between red and green.
- You can switch off the effect that you have currently selected with the FX selector switch by pressing the FX footswitch again.

Working with two effects – method 2

- Set the FX selector switch to the first effect you want to apply (e.g. "Reverse").
- Press the FX footswitch. The effect will be activated, and the FX footswitch LED will light up (red for the Reverse effect).
- Press the FX footswitch twice in short succession. The second effect will be applied, and the FX footswitch LED will alternate between red and green.
- To switch off the original effect, press the FX footswitch again.
- To switch off the second effect, press the FX footswitch twice in short succession. Mastering this method will allow you to create dramatic and fun musical effects without having to select the desired effect manually.

Effects, playback and recording

When you have recorded a loop and you switch to playback, activating one or both time-based effects in Ditto X2 Looper will apply them “non-destructively”: What you have recorded will be played back in reverse and/or at half speed. Switching the effect(s) off will return playback to the previous, “dry” state. This is the usual, “conventional” way of using effects.

However, you can also **record with effects**. In this case, things work a bit differently.

Recording with the Half Speed effect

If you switch on the Half speed effect *before* recording a new loop, you are effectively “running the tape at half speed” during recording.

Once you switch off the Half Speed effect, your new loop/overdub is played back at *double speed*.

You can use this method to record licks that would otherwise be, well, *tricky* to play.

Recording with the Reverse effect

If you switch on the Reverse effect *before* recording, that loop/overdub will be recorded in reverse.

However, as the Reverse effect is still active when this new loop/overdub is played back, it will be “reversed again” – i.e., played *forward*.

To actually hear what you have recorded (i.e., a reverse loop/overdub), you have to switch the Reverse effect off.

Here is an elegant shortcut to go from recording with the Reverse effect to reverse playback without having to press two footswitches:

Instead of hitting the Loop footswitch to stop recording, hit the FX footswitch. This will disengage the Reverse effect and allow you to continue overdubbing.

Bypass modes

Here at TC, we have a simple philosophy: When you are using one of our products, you should hear something great – and if you don't, you shouldn't hear it at all. This is why this pedal sports True Bypass. When it is bypassed, it is really off and has zero influence on your tone, resulting in optimum clarity and zero loss of high-end. Also please note that the pedal lets your dry, unprocessed sound pass without ever converting it to digital – keeping your original tone pure and without any latency.

Frequently asked questions

“Where should I place Ditto X2 Looper in my signal chain?”

To get the most out of your setup and the loops you're recording, place Ditto X2 Looper at the *end* of your signal chain. This gives you the flexibility to add parts with or without signal processing by simply switching effects on and off as required. For more information, see “Setup examples” (page 5).

“How much loop time can I get out of Ditto X2 Looper?”

Ditto X2 Looper provides five minutes of looping time.

“What's the maximum number of overdubs that I can record?”

Our guess is that you will tire out before Ditto X2 Looper does. Ditto X2 Looper allows an unlimited number of overdubs – so do your worst!

“I made a mistake – how do I undo a part?”

Press and hold the LOOP footswitch on Ditto X2 Looper while it is playing back your recorded loop. The last part you recorded will be removed.

“The LOOP footswitch LED is blinking orange, and I can't play or record. What gives?”

Your Ditto X2 Looper is connected to a computer via USB and running in USB transfer mode. Make sure that no files are currently being transferred to or from Ditto X2 Looper and remove the USB cable to return to normal operation.

Footswitch LED

state reference

Use this section as a reference when you are not sure what the current LED status means.

LOOP footswitch LED...	
Off	Device disconnected or no loop in memory
Blinking green	Loop in memory, playback/recording stopped
Green	Loop running (LED will blink shortly when LOOP end is reached)
Red	Loop recording
Blinking red	Loop currently being erased or converted
FX footswitch LED...	
Red	Reverse effect active
Green	Half speed effect active
Blinking red & green	Reverse and Half speed effects active

Updating the firmware

TC may provide updates for the built-in software of your pedal, the firmware. Updating your TC pedal's firmware requires...

- a computer running Microsoft Windows or OS X with a standard USB interface
- the specified DC power supply for your pedal.

Preparing the firmware update

1. Download the newest firmware from the “Support” page for your TC pedal. There are updaters
 - for Microsoft Windows (these are ZIP archives containing the firmware installer) and
 - for OS X (these are disk image files containing the firmware installer).
2. Unplug all cables (including the power supply) from your TC pedal.
3. Connect the pedal to your computer using a USB cable.
4. Press and hold the leftmost footswitch on your TC pedal.
5. Insert the DC power supply plug.
The leftmost LED on your pedal should turn green.
6. Release the footswitch.
Your TC pedal will now be recognized as an updatable device.

Applying the firmware update

7. Quit all MIDI-related applications (e.g. your DAW) on your computer and launch the firmware updater you have downloaded in step 1.
8. In the firmware updater app, select your TC pedal from the drop-down list under the “STEP 1” heading.
If you are using Windows XP, select “USB Audio Device” from the list.
9. When the “Update” button under the “STEP 2” heading turns green, click it.

The updated firmware will now be transferred to your TC pedal. Wait for the progress bar to reach 100%. When the update procedure is complete, the pedal will automatically restart.

Changing the batteries

If you need to change the batteries of your pedal, proceed as follows:

- Unscrew the cross-head screw on the back of the pedal and detach the backplate.
- Unmount the old batteries and attach the new batteries to the battery clips. Make sure the polarity is correct!
- Remount the backplate.

Notes regarding batteries

- Batteries must never be heated, taken apart or thrown into fire or water.
- Only rechargeable batteries can be recharged.
- Remove the batteries when the pedal is not being used for a longer period of time to save battery life.
- Dispose batteries according to local laws and regulations.

Technical specifications

- Maximum loop length: 5 minutes
- Maximum no. of overdubs: Unlimited
- Bypass mode: True Bypass
- Latency: None (analog dry-through)
- Dimensions (Width x depth x height):
113 mm x 135 mm x 54 mm /
4.44" x 5.31" x 2.13
- Weight: 512 g / 1.13 lbs.
- Input connectors:
Stereo – 2 standard TS ¼" jacks
- Output connector type:
Stereo – 2 standard TS ¼" jacks
- Power input: Standard 9 V DC,
centre negative (not supplied)
- USB connector type: Mini-B USB
- Controls:
- Loop level knob
- Loop footswitch
- FX footswitch
- FX selector switch
- Store / Backing track level switch

Due to continuous development, these specifications are subject to change without notice.

Getting support

As you have probably realized by now, Ditto X2 Looper offers a wealth of features, and you may have questions that we didn't cover in this manual. To learn more about setups, importing and exporting loops as backing tracks, creative techniques etc., please go to the Ditto X2 Looper FAQ at

<http://tcelectronic.com/ditto-x2-looper/faq/>

You will also find a link to this page in your Ditto X2 Looper's folder when you have connected it to your computer.

If you still have questions about the product after reading this manual and the FAQ page, please get in touch with **TC Support**:

<http://tcelectronic.com/support/>

