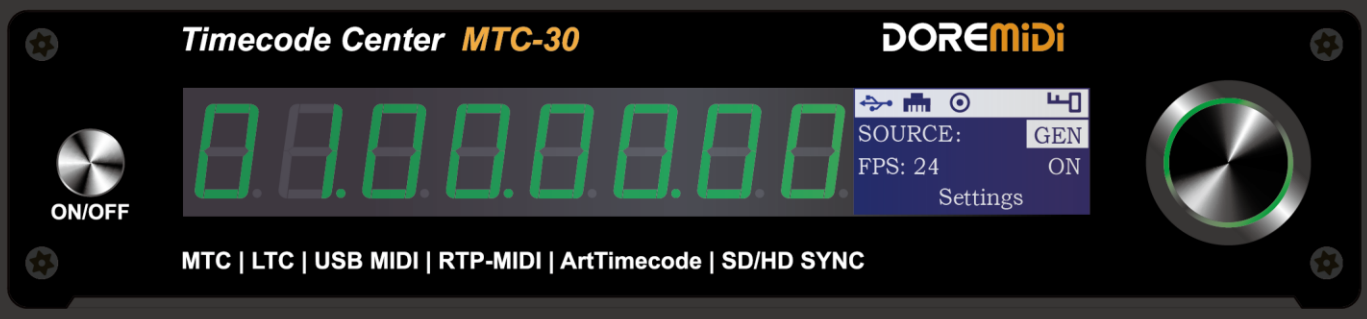
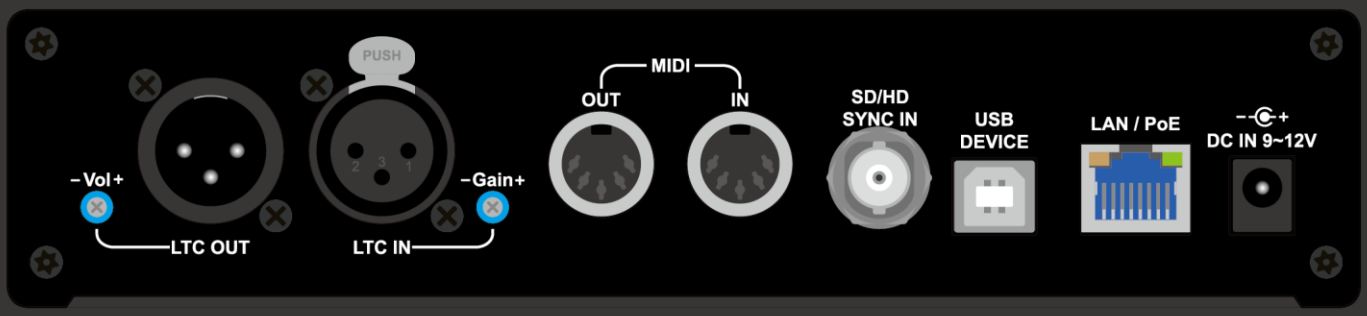
DOREMiDi
www.doremidi.cn

Timecode Center
MTC-30



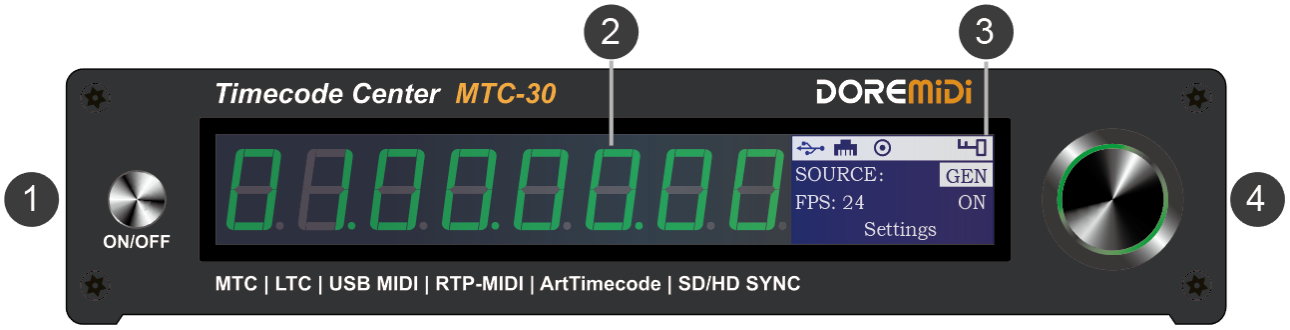


Instructions

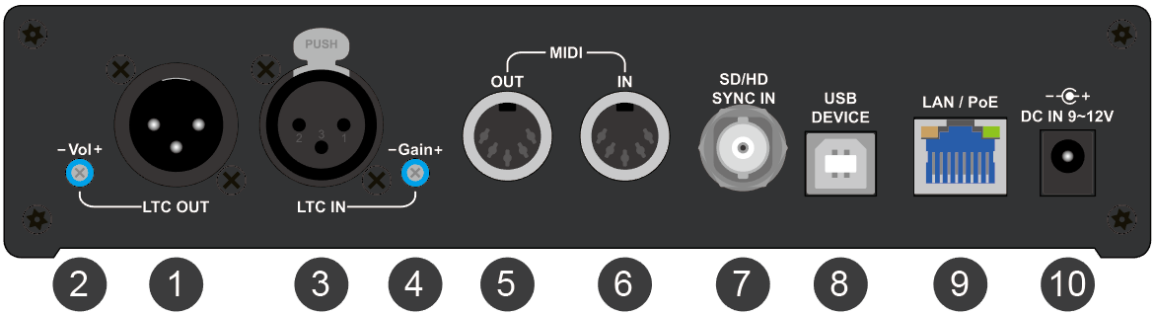
1. Product Introduction

The Timecode Center (MTC-30) is a multifunctional time code product designed by DOREMiDi. MTC-30 has RTP-MIDI network time code, Art-Net time code, SMPTE LTC, MIDI time code, USB time code, SD/HD video frame synchronization, and can be used for time code synchronization between computers, MIDI devices, DMX devices, and LTC devices. MTC-30 supports time code generation, time code conversion, and time code reading, and can use the standard MMC protocol (MIDI Machine Control) to remotely control time code. In addition, MTC-30 has power over Ethernet, which can be powered by a PoE gateway, and uses an 8 x 0.56” digital + 1.3” display design, which can clearly display the time code and is also convenient for setting the working parameters.

2. Product appearance



No.	Name	Description
❶	**ON/OFF**	Power switch, press and hold for 3 seconds to turn on/off.
❷	**8 x 0.56” digital tube**	Green, displays time code, with adjustable brightness.
❸	**1.3” display**	Display product working parameters.
❹	**Knobs**	The knob with button function can be used to configure the product's working parameters by rotating, clicking, and long pressing.



No.	Name	Description
❶	**LTC OUT**	Standard 3-pin XLR interface, LTC output port, connect to devices with LTC input port.
❷	**-Vol+**	Analog potentiometer, adjust the LTC output audio amplitude.
❸	**LTC IN**	Standard 3-pin XLR interface, LTC input port, connect to devices with LTC output port.
❹	**-Gain+**	Analog potentiometer, adjust LTC IN input gain.
❺	**MIDI OUT**	Standard MIDI DIN five-pin output port, output MIDI time code.
❻	**MIDI IN**	Standard MIDI DIN five-pin input port, input MIDI time code.
❼	**SD/HD SYNC IN**	BNC socket, SD/HD video input.

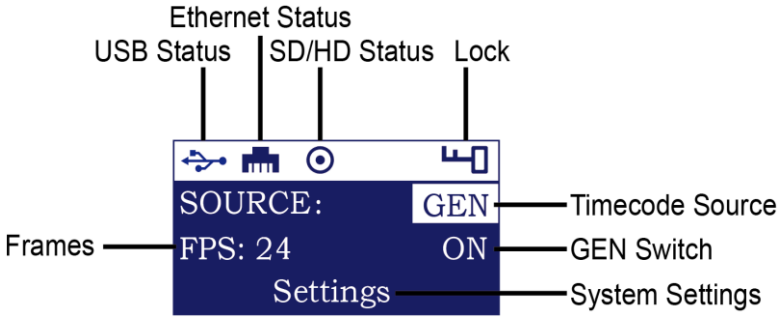
❽	**USB Device**	USB-B interface, USB class compliant device, can be connected to a computer or connected to an external 5VDC power supply.
❾	**LAN/PoE**	Ethernet port with PoE function, supports RTP-MIDI time code, Art-Net time code, and supports connecting to PoE gateway to power the product.
❿	**DC IN 9~12V**	The power supply port requires a 9~12VDC adapter, current ≥500mA, DC plug 5.5*2.1mm, positive inside and negative outside.

3. Product Parameters

Name	Description
Model	MTC-30
Dimensions (L x W x H)	205*120*45mm
Weight	550g
Operating Voltage	USB-B: 5VDC DC port: 9~12VDC LAN: Refer to PoE standard
Operating Current	120mA@9V，95mA@12V，180mA@USB-5V.
Time Frame Rate	Support time code frame rates of 24, 25, 30DF, and 30 frames.
LTC Compatibility	Compatible with SMPTE LTC standard audio signals. **(Note: If the LTC input frame rate is 23.976FPS, it will be recognized as 24FPS, if the input frame rate is 29.976FPS, it will be recognized as 30FPS.)**
LTC Output	Impedance = 110 ohm, Voltage range: 0.48 V ~ 1.6 V
LTC Input	Impedance = 10K ohm, Voltage range: 0.1 V ~2.8 V
USB Port Compatibility	Compatible with Windows, MacOS, iOS, Android and other systems, plug and play, no need to install drivers.
MIDI Port Compatibility	Compatible with all MIDI devices with five-pin MIDI standard port.
MIDI Communication	MIDI communication includes MIDI five-pin port, USB MIDI and RTP-MIDI. This product is used to communicate MIDI time code. USB MIDI also supports MMC control instructions, but does not support communication of other MIDI messages.
Ethernet	Support static IP and automatic IP acquisition (DHCP). When the product works in DHCP, the IP address is allocated by a gateway with DHCP function.
Art-Net	Standard Art-Net communication protocol, only used to communicate Art-Net time code (Art time code).
RTP MIDI	MTC-30 supports being a listener and can be connected by an initiator (such as a computer). It supports up to 5 initiators to connect at the same time.
SD/HD	Support SD/HD video signal input, support 1080P, 720P, 480i, 576i video formats.

4. Operation interface

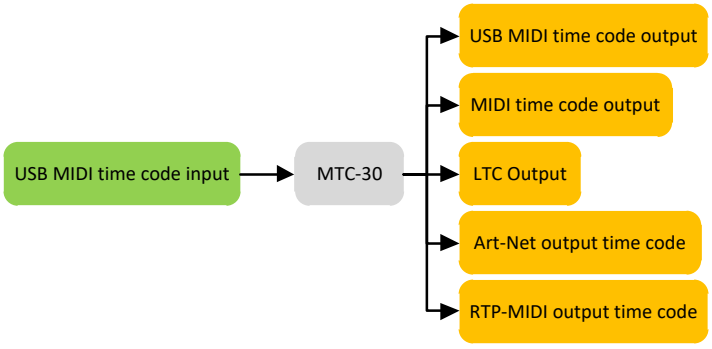
4.1. Main interface

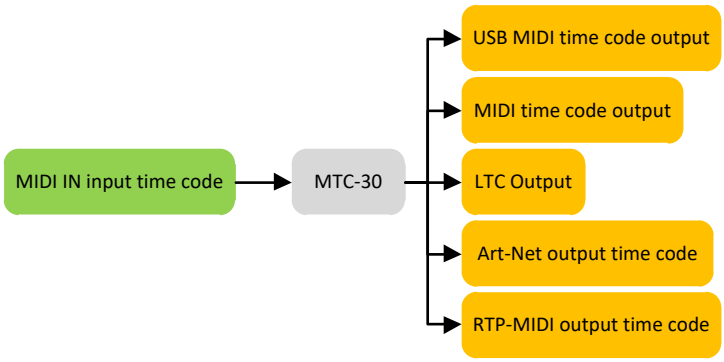
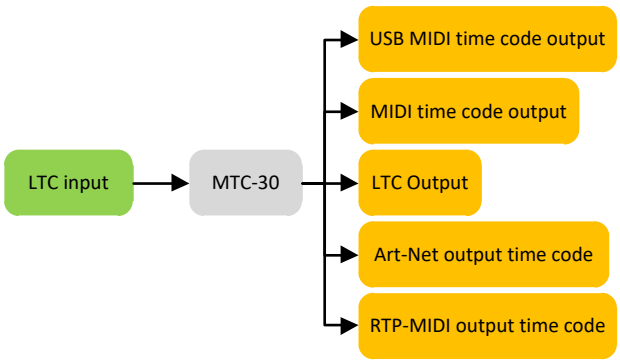
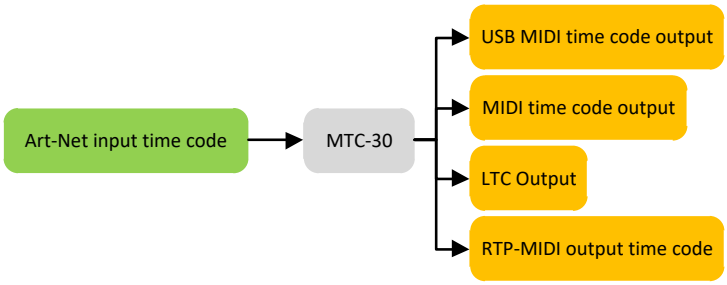
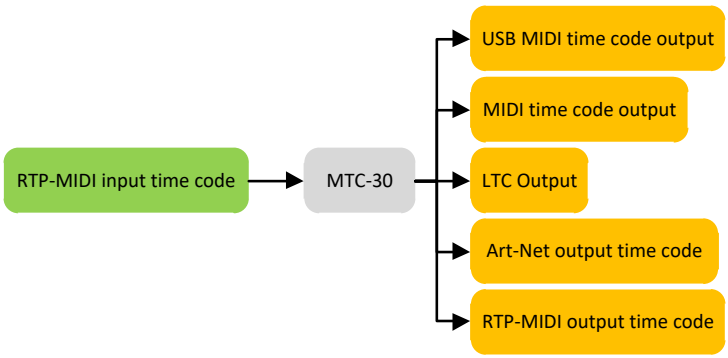


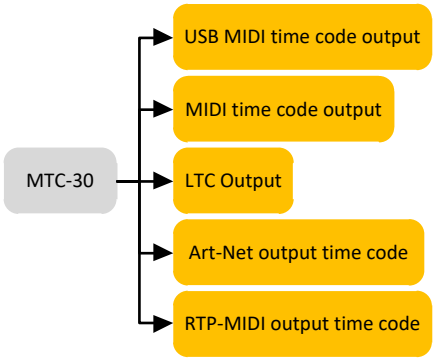
Name	Description	Operating
USB Status	Displayed When the USB Device port is connected to the computer.	/
Ethernet Status	Displayed when the Ethernet port is connected to the network.	/
SD/HD Status	SD/HD video input status, displayed when there is video signal input.	/
Lock	In the main interface, in order to prevent misoperation, if there is no operation for more than 10 seconds, the screen will be locked and no operation will be allowed.	Press and hold the knob for 3 seconds to exit the lock state.
Time Code Source	MTC-30 supports 6 time code sources, including USB, MIDI, LTC, GEN, ART-NET, and RTP-MIDI.	Click the knob to select "SOURCE", and rotate the knob to select different time code sources.
Frames	Displays the current working frames per second of the product, supporting 24, 25, 30DF, 30.	Click the knob to select "FPS", and rotate the knob to select different frames.
GEN Switch	When the time code source is "GEN", it is used to turn on/off time code generation.	Click the knob to select "GEN" and rotate the knob to turn time code generation on/off.

4.2. Time code source settings

MTC-30 supports 6 time code sources, including "USB / MIDI / LTC / GEN / ART-NET / RTP-MIDI". Click "SOURCE" and rotate the knob to select a different time code source. The following is a description of the 6 time code input sources:

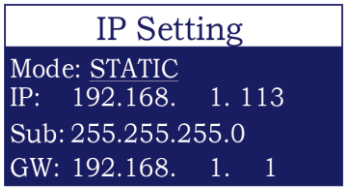
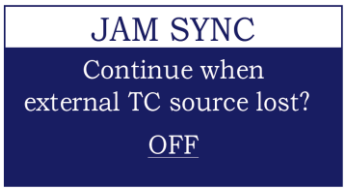
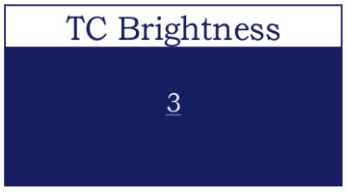
Source	Display	Description
USB		Time code input from USB, USB / MIDI OUT / LTC OUT / ART-NET / RTP-MIDI output time code: 

MIDI		Time code input from MIDI IN, USB / MIDI OUT / LTC OUT / ART-NET / RTP-MIDI output time code: 
LTC		Time code input from LTC IN, USB / MIDI OUT / LTC OUT / ART-NET / RTP-MIDI output time code: 
ART-NET		Time code input from ART-NET, USB / MIDI OUT / LTC OUT / GEN / RTP-MIDI output time code: 
RTP-MIDI		Time code from RTP-MIDI input, USB / MIDI OUT / LTC / ART-NET / RTP-MIDI output time code: 

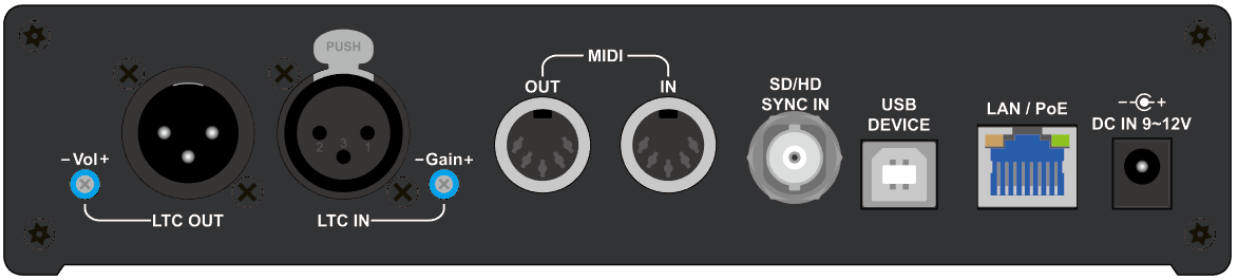
GEN		MTC-30 generates time code, and USB / MIDI OUT / LTC OUT / ART-NET / RTP-MIDI outputs time code. Click the knob to set the following parameters: a. Hours, minutes, seconds can be set; b. Time frame format can be set: 24, 25, 30DF, 30 are supported. 

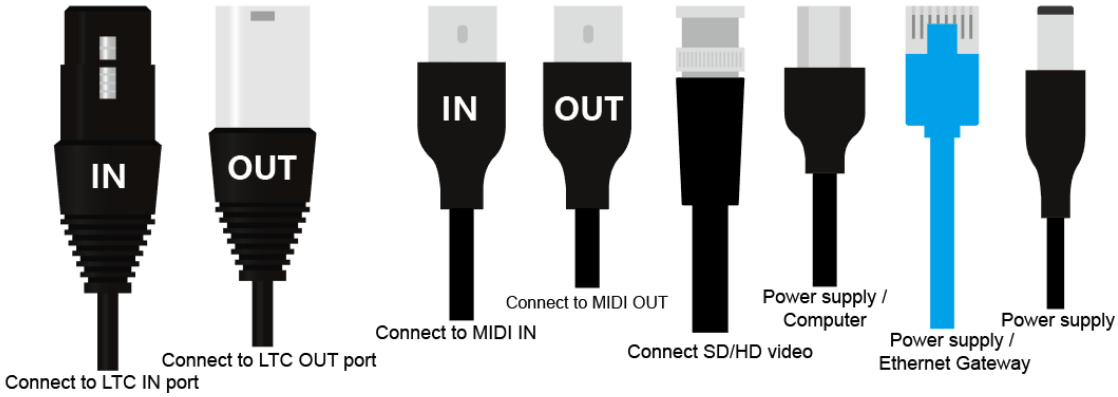
4.3. Setting Menu

After clicking the knob to select "Setting", long press the knob to enter the setting interface, where you can set IP (IP Setting), JAM SYNC, time code brightness (TC Brightness), SD/HD synchronization. Rotate the knob to select different setting items, click the knob to enter the setting, and long press the knob to complete the setting and return to the previous menu.

Items	Parameter	Description
IP Setting		Mode: IP acquisition mode, supports automatic IP acquisition (DHCP), manual setting of static IP (STATIC). When set to "STATIC", you can set IP, subnet mask (Sub), gateway (GW).
JAM SYNC		Time code fill synchronization switch, factory default is off (OFF). When turned on (ON), when the time code source is external input (USB/MIDI/LTC/ART-NET/RTP-MIDI), if the external time code source stops, the product will automatically generate time code to fill. When the external time code is restored, the external time code will be reused.
TC Brightness		Set the brightness of the digital display. Parameter range: 1~7.
SD/HD		Set the SD/HD video input synchronization switch. In this interface, you can see the input video format, which supports 1080P, 720P, 480i, and 576i video formats. When turned on (ON), when the product time code source works in "GEN" and the frames is consistent with the video input signal, MTC-30 will synchronize the video frames as a reference to generate the time code.

5. Connection diagram





6. Quick Use

6.1. Power supply: MTC-30 supports multiple power supply methods. After power supply, long press the "ON/OFF" button to turn on or off.

Power supply	Description
Powered by USB port	Powered by USB connection to computer/adapter, only supports 5V.
Powered by DC port	DC port supports 9~12V adapter power supply, positive inside and negative outside.
Power over Ethernet	Power over Ethernet, please make sure your router/switch has PoE capability.

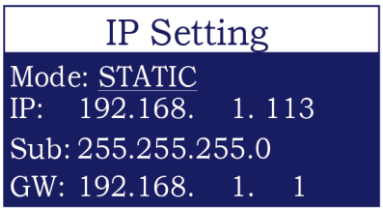
6.2. Connect to computer: Connect to computer via USB-B port. USB supports MIDI function, bidirectional communication of MIDI time code, and MMC. (See: **7. Use of MMC Tool**)

6.3. Connect MIDI devices: Use a standard 5-pin MIDI cable to connect the MIDI OUT of MTC-30 to the IN of the MIDI device, and the MIDI IN of MTC-30 to the OUT of the MIDI device.

6.4. Connect the LTC device: Use a standard 3-core XLR cable to connect the LTC OUT of the MTC-10 to the LTC IN of the LTC device, and connect the LTC IN of the MTC-10 to the LTC OUT of the LTC device.

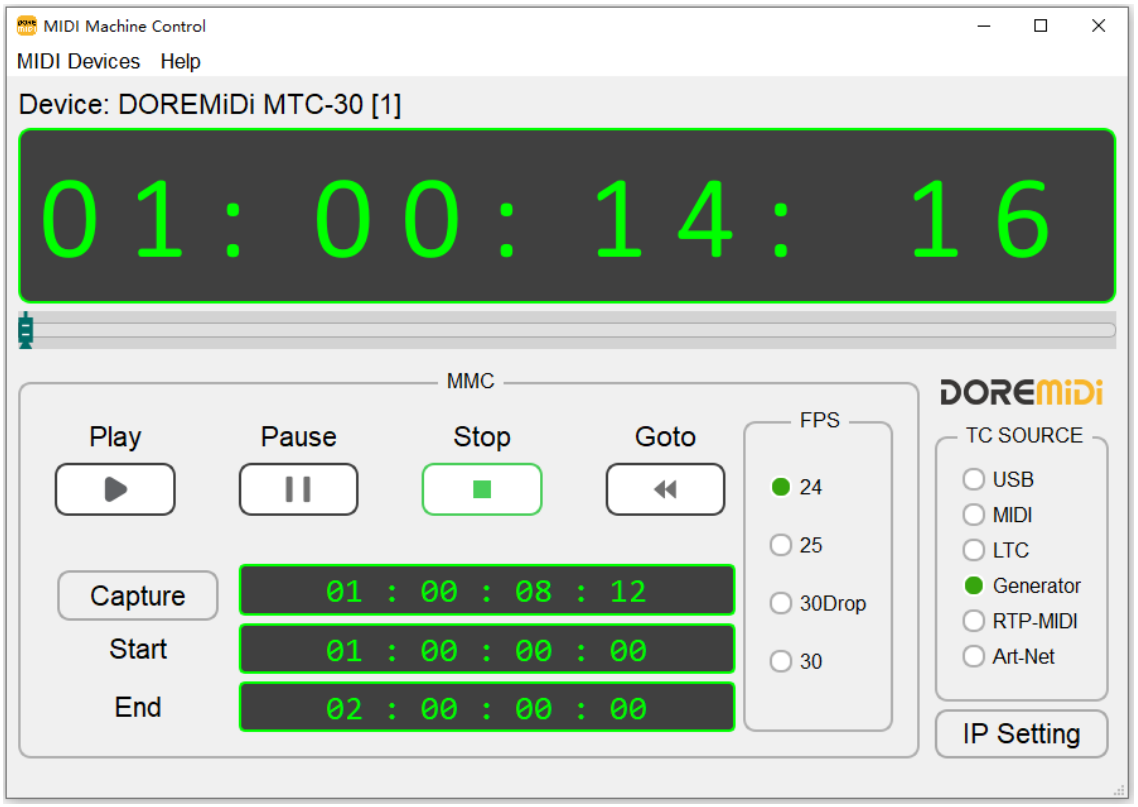
6.5. Set the time code source: Click to select "SORUCE", and rotate the knob to select a different time code. MTC-30 supports 6 time code sources, including "USB / MIDI / LTC / GEN / ART-NET / RTP-MIDI". (See: **4.2. Time code source settings**)

6.6. Set IP address: Click the knob to select "Setting", and then long press to enter the setting menu interface. In the setting menu interface, click the knob to select "IP Setting", click to select Mode, IP, Sub, GW and other setting items, rotate the knob to set the parameters, and long press the knob to complete the setting and return to the previous menu. (See: **4.3. Setting Menu**)



7. Use of MMC Tool

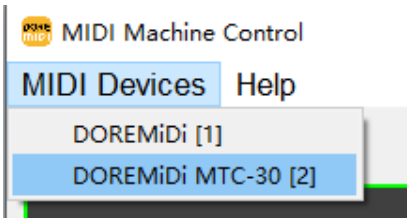
After the USB of MTC-30 is connected to the computer, it supports MMC standard commands (Stop, Play, Goto), and the MMC Tool can be used to remotely control the generation of time code. Connect the "USB DEVICE" of MTC-30 to the computer and open the MMC Tool of DOREMiDi. The software can be downloaded from the DOREMiDi official website: www.doremidi.cn **(Note: The MMC Tool software will be updated from time to time. The detailed functions are subject to the downloaded software.)**



7.1. Connect the device

Click "MIDI Devices" → Select "DOREMiDi MTC-30".

(Note: One USB MIDI can only be connected by one software. If the connection fails, please check if there is other software occupying the product and disconnect it).



7.2. TC SOURCE

Remote control of the MTC-30 time code source, supporting USB / MIDI / LTC / Generator / RTP-MIDI / Art-Net time code sources.

7.3. MMC

When the time code source is "Generator", the MMC interface can be controlled. The specific controls are as follows:

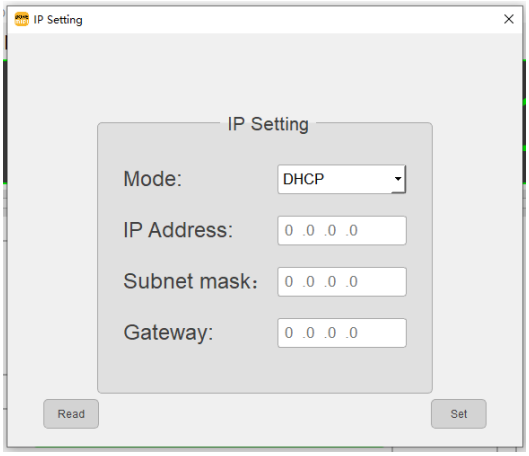
a. Play: Start playing the time code.

b. Pause: Pause the time code. After pausing, if you click "Play" again, it will continue to play at the current time code.

c. Stop: Stop the time code playback. After stopping, if you click "Play" again, it will return to the "Start" time code and play again.
d. Capture: Get the time code. Click "Capture" to get the time code currently running on the product.
e. Start: Set the start time of playback.
f. Stop: Set the end time of playback.
g. FPS: Set the time code frames per second, support 24, 25, 30Drop, 30.

7.4. IP Setting

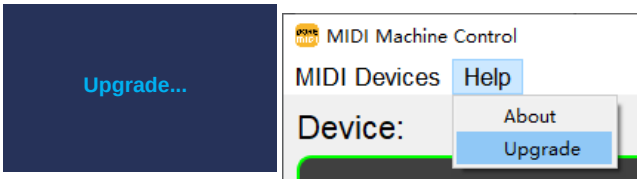
This product supports setting IP parameters through MMC_Tool, including IP mode (Mode), IP Address, Subnet mask, and Gateway. IP mode supports automatic acquisition of IP (DHCP). After setting, the IP address is assigned by a gateway with DHCP function. Supports manual IP setting (Manually). After setting, the product uses a static IP address. Click "Read" to obtain the product's IP address, and click "Set" to set the IP address information.

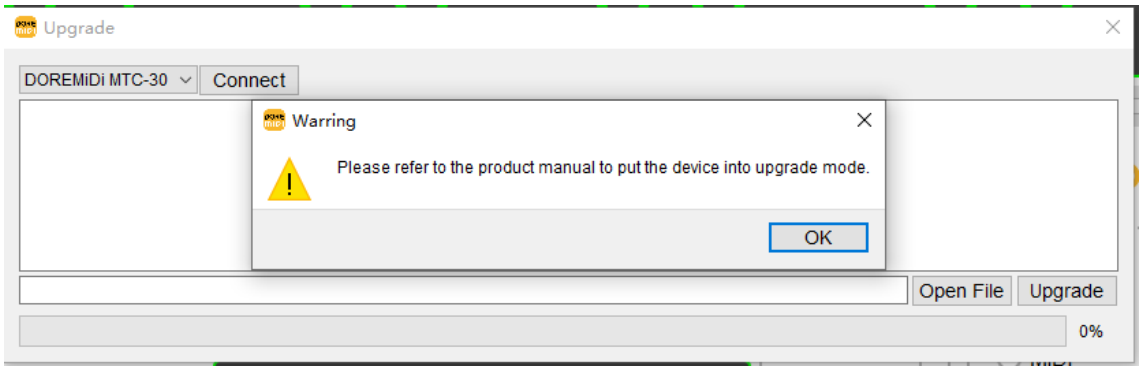


7.5. Firmware Upgrade

This product supports firmware upgrade via MMC_Tool. Reference steps: Press and hold the knob → Power on the product → Release the knob → The product enters upgrade mode → Open the MMC Tool software → Help-Upgrade → Click "Open File", select the firmware downloaded from the official website → Click "Upgrade" to start the upgrade → Wait for 5 seconds after the upgrade is complete and power on the product again.

(Note: If the product has a firmware update, it will be released through the official website. Please pay attention to the official website notification.)





8. Precautions

- This product contains a circuit board.
- Rain or soaking in water may cause the product to malfunction.
- Do not heat, press or damage the internal components.
- Non-professional maintenance personnel are not allowed to disassemble the product.
- The DC input voltage of the product is 9~12VDC, and the USB input voltage is 5VDC. Using a voltage lower/higher than this may cause the product to malfunction or be damaged.

9. Q&A

Question: LTC time code cannot be converted to MIDI time code.

Answer: Please make sure that the format of LTC time code is one of 24, 25, 30DF, 30 frames; if it is other types, time code errors or frame loss may occur.

Question: Can MTC-30 generate time code?

Answer: Yes, please select "GEN" as the time code input source.

Question: USB cannot be connected to the computer.

Answer:

First confirm the connection and see if the USB symbol is displayed;

Confirm whether the computer has MIDI driver. Generally speaking, the computer comes with MIDI driver. If it is found that the computer does not have MIDI driver, you need to install MIDI driver. Installation method: https://windowsreport.com/install-midi-drivers-pc/

If the problem is not solved, please contact customer service.

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Post Code: 518105

Customer Service Email: info@doremidi.cn