Pyroterra Lighttoys

presents

FT Remote PRO user guide

V2.2

(ENG)

Contents

Introduction

Dear customer, thanks for your purchase of the unique, advanced controlling device - FT Remote PRO from Pyroterra Lighttoys!

FT Remote PRO is designed from the ground up to offer a superior control of your Visual, FT and FT2 devices, easy integration with other industry protocols like DMX512, Art-Net and OSC, music playback, remote control via a web browser or a mobile phone and much more.

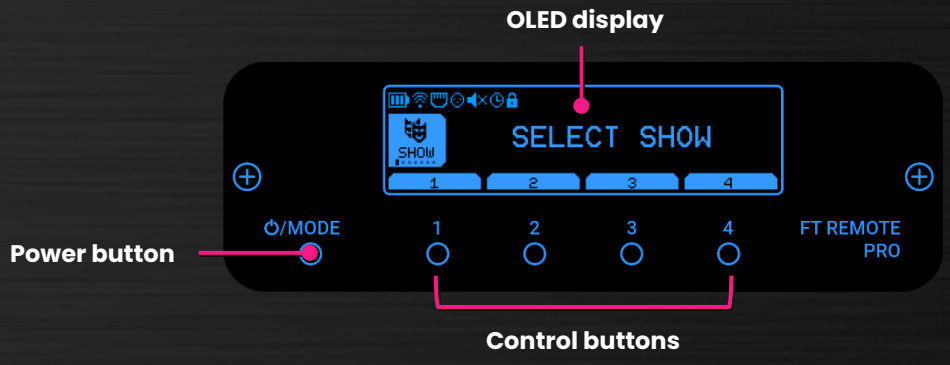
This guide will walk you through the functionality of the FT Remote PRO, so you can start using its advanced features as quickly as possible.

FT Remote PRO highlights

- MP3 audio playback
- Wi-Fi and Ethernet control
- Web server (simple control via a web browser interface)
- DMX512 & Art-Net support
- Linear Timecode (LTC) support
- OSC support
- FT signal range increased up to 300 meters
- OLED display
- Li-ion battery powered
- USB-C fast charging
- PoE (Power over Ethernet)
- LtComposer software full integration

Interface

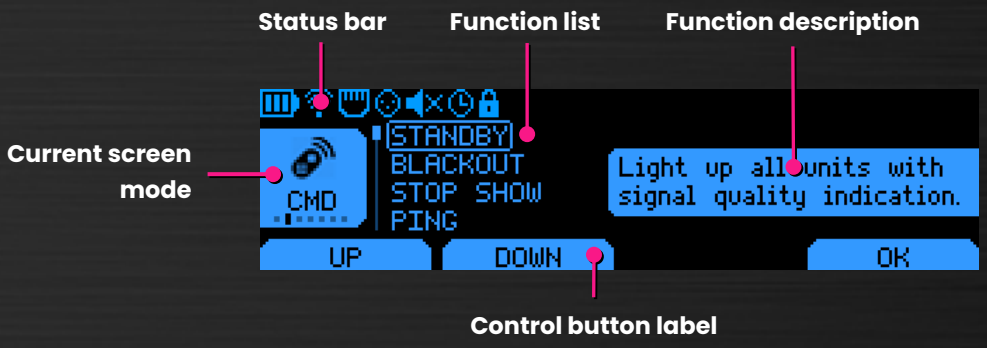
Front side



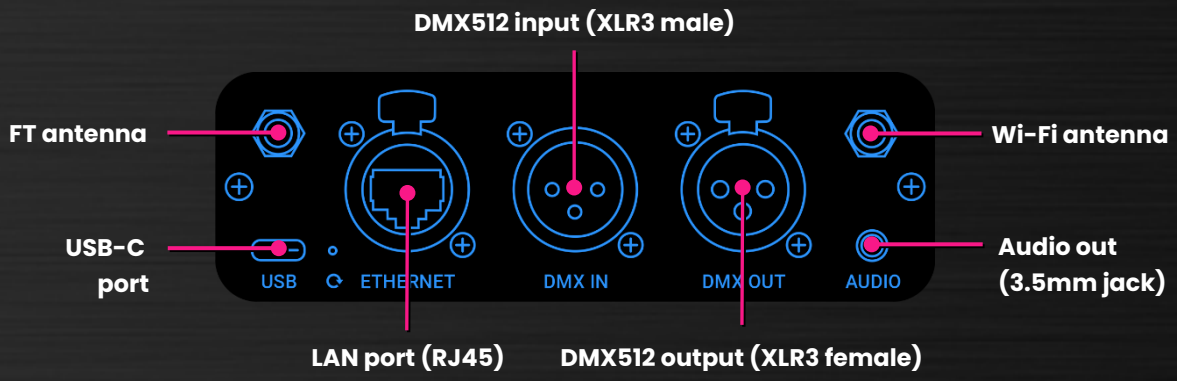
Power button – hold for 1 second to turn on the FT Remote PRO, hold for 1 second to turn off.

Control buttons – used to control the various features of the FT Remote PRO. The current functionality of the buttons is shown at the bottom of the display:

Display



Rear side



Screen modes

The FT Remote PRO offers several different functions, which are logically grouped into 7 **"screen modes"**. Click the Power button to cycle through the available screen modes:

1. Show –used to start your uploaded FT light show sequences in memory banks 1-4, similarly to the standard FT remote controller.

2. Command – offers helpful FT commands: go to standby, blackout, ping, switch off all units.

3. Pairing – used to start a new pairing of units, to add units to an existing group or to switch the pairing mode.

4. WIFI – used to start and setup the Wi-Fi connection.

5. LAN – used to start and setup the ethernet (LAN) connection.

6. Music – useful to play (check) the MP3 audio files linked to the shows 1-4.

7. DMX – used to turn on DMX512 interface and setup the DMX address of the FT Remote PRO.

8. LTC – used to turn on the Linear Timecode (LTC) interface, setup signal frame rate, freewheel and show triggers.

1. Show mode

The default screen of the FT Remote PRO is the **Show mode**, enabling you to start the show 1-4 on all your paired FT devices.

Press the control button **1-4** to select the show you want to start. On the next screen press the **START** button to immediately launch your show.

Alternatively, you can use this screen to send a command for all FT units to turn off their light output (press **BLACKOUT**), or set a delayed start of the show (press **DELAY**).

To return back to the original Show mode screen, press the **BACK** button.

Delayed start

When you press the **DELAY** button, a new screen appears, which enables you to configure a countdown timer that delays the show start, giving you some time for preparation before the show launches.

Use the buttons **+MIN** and **+SEC** to set the minutes and seconds of the countdown timer. Press the **START** button to active the delayed start.

*To increase the values faster, hold the button **+MIN** / **+SEC**. To reset the timer to 00:00, press and hold the **+MIN** and **+SEC** simultaneously.*

Running show

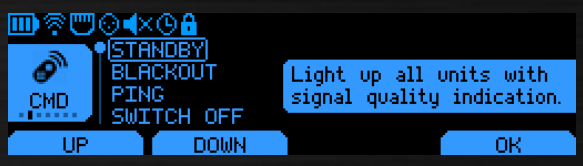
Once you start the selected show, the following screen will appear:

When the show is running, you can control the show brightness level (LED light intensity of units) and the audio volume of the MP3 track being played (if available).

Press the **STOP** button at any time to stop the running show.

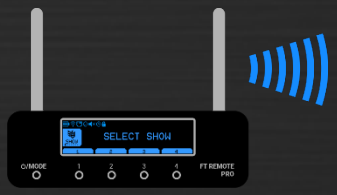
2. Command mode

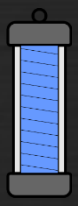
Command mode screen contains useful functions for checking your FT devices status and preparing the FT devices for the show.



STANDBY

Select the **STANDBY** function to bring all FT paired units into the standby mode. The device LEDs will shine either in blue color, indicating strong signal and trouble-free response; or in pink color, indicating a weak signal or no response at all:





FT remote is responding, signal quality is good.

Paired FT remote is turned off, or signal quality is weak.

BLACKOUT

Select the **BLACKOUT** function to bring all FT paired units into the blackout mode. In this mode the light output is turned off on all units, enabling you to start your programmed show discretely.

PING

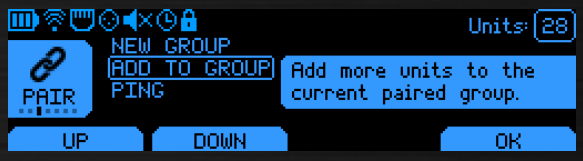
Select the **PING** function to momentarily flash the light output of all FT paired units in white color, checking if they are available and operational.

SWITCH OFF

Select the **SWITCH OFF** function to send a signal to turn off all FT paired units. This function is useful when you have finished the show and are packing the gear.

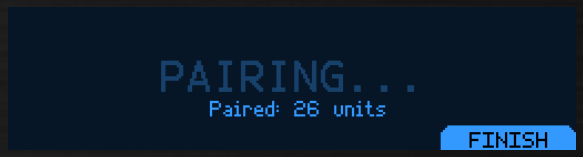
3. Pairing mode

Pairing mode screen is used to manage the currently controlled FT devices by the FT Remote PRO, a process also known as “pairing”.



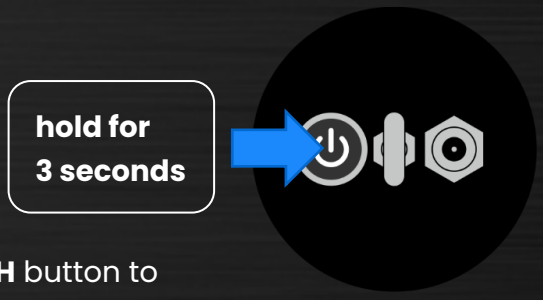
NEW GROUP

To pair a completely new set of devices, select the **NEW GROUP** option. After confirming with the **OK** button, a new screen will appear:



Prepare all devices you want to pair and make sure they are all turned off.

For each FT device, hold its power button for **3 seconds** to enter the pairing mode. The LEDs will blink twice in white color once successfully paired to the FT remote PRO.



Zebra Poi FT

After all FT devices are paired, press the **FINISH** button to complete the pairing process.

After a successful pairing, you have created a so-called “paired group” – a group of FT devices that react in unison to the commands from the FT remote PRO:

paired group

ADD TO GROUP

If you want to add extra units to an existing paired group (without losing the original pairing), select the **ADD TO GROUP** function instead. The pairing process is then the same as above.

4. WIFI mode

WIFI mode screen is used for basic setup of the Wi-Fi wireless connection on the FT Remote PRO.

There are 2 ways how the Wi-Fi connection can be configured – Hotspot mode & Client mode.

Hotspot mode

In hotspot mode, the FT Remote PRO acts as a central Wi-Fi access point for other network devices (mobile phone, tablet, PC etc.) that connect to it directly:

client device | hotspot (access point) | client device

This mode is useful for setting up the FT Remote PRO advanced functionality and to control it from your personal devices nearby.

First, make sure this functionality is turned on in the WIFI menu (**HOTSPOT: ON**). Then select the **INFO** from the list, to open the network status information.

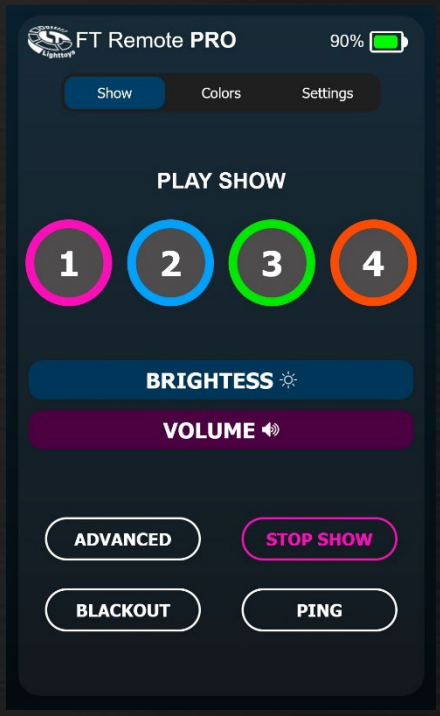
The STATUS should be: **RUNNING**. On the right side you have the network name (SSID), default password and IP address of the hotspot:

SSID: `FT-Remote-PRO-XXXX` (where XXXX is a random number)
Password: `pyroterra`
IP address: `192.168.0.1`

On the client device of your choice, connect to this network.

FT Remote PRO in hotspot mode doesn't offer access to the Internet. When connecting to it, some devices might pop up a warning or even prevent the connection. You might need to disable smart network switching or mobile data in your wireless network settings.

After a successful connection to the hotspot, you can start using many exciting features of the built-in web server.



Open the web browser on the connected device and type in the IP address of the hotspot into the URL bar: `192.168.0.1` A new screen will appear

The **Show** tab is used to start your programmed sequences, the **Colors** tab is a virtual keypad and the **Settings** tab enables advanced configuration.

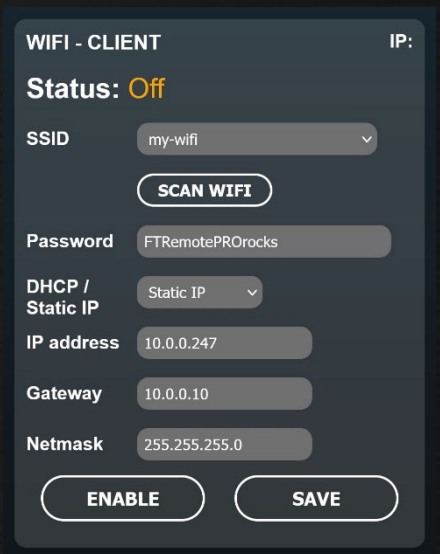
To learn more about the built-in web server, please go the web browser interface section in this document.

Client mode

In client mode, the FT Remote PRO is configured as a wireless client that connects to an existing wireless network infrastructure:

client wireless local network client

This mode is useful for performances in venues with existing Wi-Fi networks, often when the FT Remote PRO is controlled from larger distances. To configure the FT Remote PRO as a client, use the hotspot mode (see above) and in the web browser interface **Settings** tab scroll to the **WIFI - CLIENT** section.



Click the **SCAN WIFI** button and select the network that you want to connect to.

Select between DHCP / Static IP, fill in the fields and click the **SAVE** button to save the values into the FT

Remote PRO memory, so it can be used automatically next time you use the client mode.

Then click the **ENABLE** button to activate the client mode.

Now you can access the FT Remote PRO and its web browser interface from a different device on the same network.

IP MODE – DHCP vs. Static IP

When configuring the client mode (either using the web server or the FT Remote PRO display), you can select between 2 different connection methods:

- **DHCP client**
- **Static IP**

The **DHCP client** method lets the network assign IP address to the FT Remote PRO automatically. This is useful, when you don't know the network topology and the available IP address space. The downside: the assigned IP address can change from time to time.

Use the **INFO** screen on the FT Remote PRO to check the currently assigned IP address in the **MY IP:** field.

Then use the assigned IP address in your browser URL bar to access the web browser interface.

On the other hand, The **Static IP** method let's you set the IP address manually as you want, without randomly changing. The downside: you need to know the network topology quite well, to prevent possible IP address conflicts.

To configure the FT Remote PRO for static IP use, again use the web server interface, go to the **Settings** tab, scroll to the **WIFI - CLIENT** section, select **Static IP** from the drop-down menu and fill in the needed values there (IP address, Gateway, Netmask).

Then use the same static IP address value in your browser URL bar to access the web browser interface.

5. LAN mode

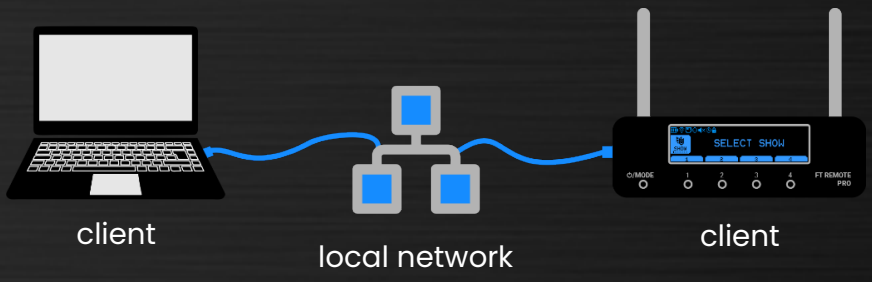
LAN mode screen is used for basic setup of the ethernet (LAN) connection on the FT Remote PRO.

LAN connection provides lower latency and more robustness over Wi-Fi connection, so it is recommended in all mission critical setups. Disabling the Wi-Fi can further improve the signal integrity.

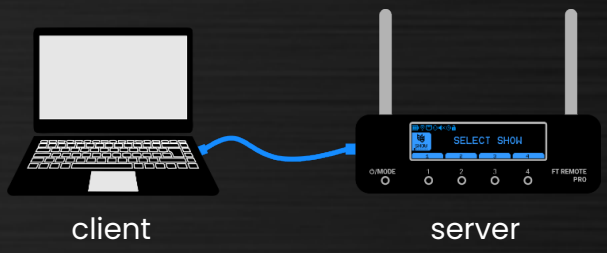
Since the general usage and setup of the ethernet (LAN) connection is very similar to the Wi-Fi connection, only important differences will be described.

IP MODE - Client vs. Server

When using the FT Remote PRO controller as part of an existing local wired network, select the **IP MODE: DHCP CLIENT** (or **Static IP** if you want to manually assign the IP address):



On the other hand, if no existing wired network is readily available, and you still want to use the ethernet connection with your host computer, select the **IP MODE: DHCP SERVER** instead:



In the **DHCP SERVER** mode, the FT Remote PRO acts as a network provider, offering an easy wired connection of other computer(s) directly to it.

In this mode, the FT Remote PRO's IP address (default gateway) is `10.0.0.1`, open the web browser on the client device and type in that IP address to connect to the web browser interface of the FT Remote PRO.

6. Music mode

The music mode screen provides an overview of all the audio files that are currently mapped to play simultaneously with your programmed shows 1-4.

Use the **UP** and **DOWN** buttons to select the audio file, then click the **PLAY** button to start its playback. If you see **N/A** in the list, it means that no audio file is mapped to this show bank number.

Once the music is playing, you can change the playback volume using the first button. There are 6 volume levels available + mute (no audio output).

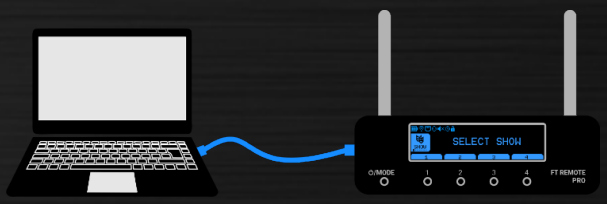
When the audio output is muted, a new icon will appear at the top of the display.

*To play the music, connect your speakers / audio equipment using an audio cable with a 3.5mm stereo jack, attached to the **Audio out** port of the FT Remote PRO.*

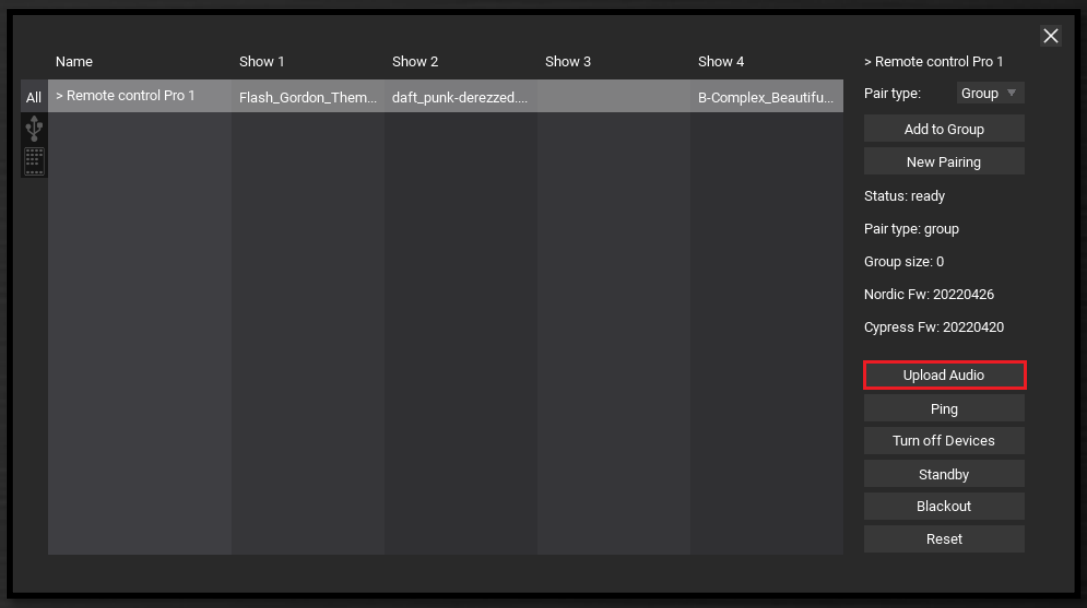
Uploading audio files

For uploading audio files into the FT Remote PRO's internal memory, please download the LtComposer software (version 3.6 or newer), available from the Lighttoys support page.

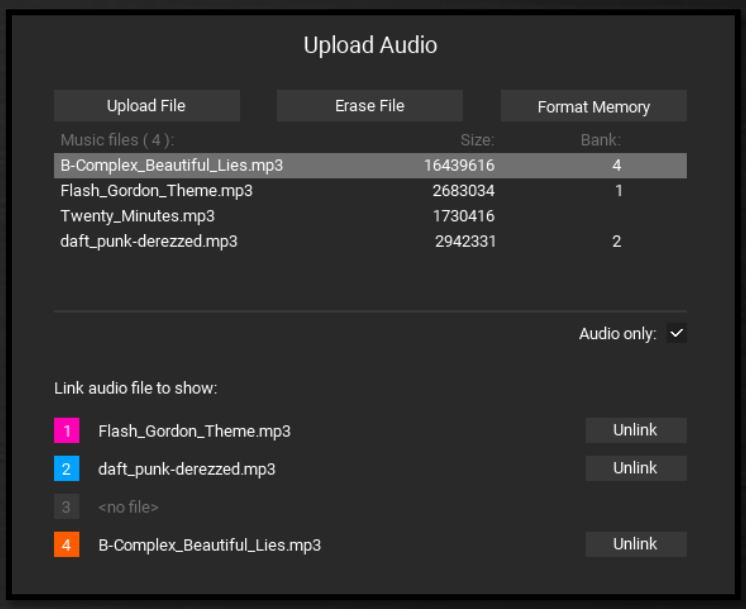
Connect the FT Remote PRO with a USB-C cable to your computer and make sure it is turned on:



Then launch the LtComposer, go to the **Devices** menu, select the FT Remote PRO in the list, and on the right side click the **Upload audio** button:



A new window will appear:



Use the **Upload file** button to upload new audio files from your computer to the FT Remote PRO's internal memory (capacity: 16Gb).

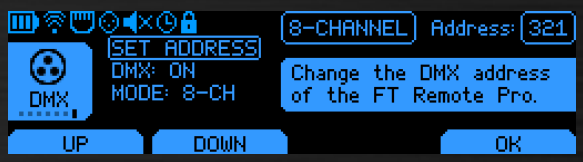
To map the uploaded audio file to the show bank 1-4, first select the audio file in the top list (by clicking on it), then click on the show position 1-4 at the bottom.

To reset the link, click **Unlink** on the right.

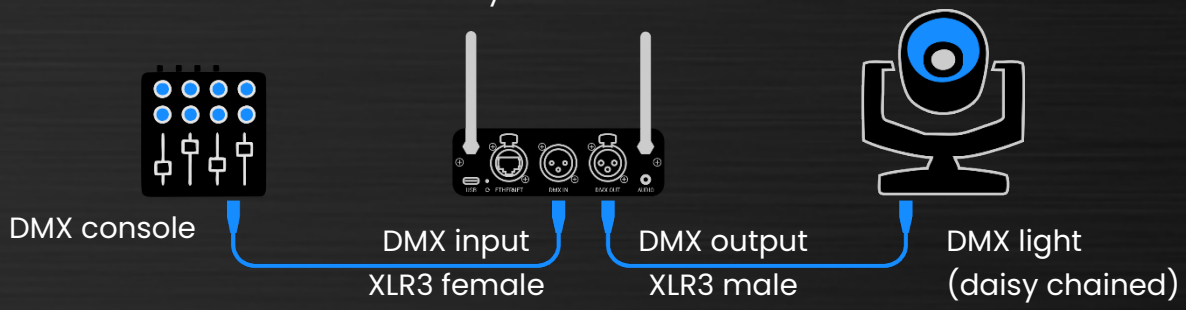
To prevent unnecessary re-uploading of music files, you can use the FT Remote PRO internal memory as a storage for your favorite audio files and just link them to shows 1-4 as needed.

7. DMX mode

The DMX mode screen is used to turn on/off the DMX512 interface and to setup the starting address of the FT Remote PRO in the DMX universe.



DMX512 is an industry standard for controlling stage lighting effects and devices. When connected to a properly configured DMX console with an XLR 3-pin cable, the FT Remote PRO can be remotely controlled also via DMX:



FT Remote PRO can be configured either as a basic 8-channel fixture or as an advanced 18-channel fixture in the DMX address space. The first 8 channels are shared, they are the same for both modes.

To switch between these 2 modes, use the **MODE** option in the DMX menu:

The 8-channel mode offers the following basic functions:

- **show 1-4 start / stop**
- **blackout**
- **ping**
- **standby**

The 18-channel mode offers the following extra functions:

- **show start time offset**
- **live control** (including 40 dynamic effects + random mode)

Please consult the table below to properly setup your DMX controller / DMX software for interfacing the FT Remote PRO fixture:

Ch.	Functionality	Channel value	Notes
1	master switch enable	0-247 : all other DMX functionality is off 248-255 : all other DMX functionality is on	Enable this channel first (set value to 248-255), it serves as a protection against accidental inputs.
2	start / stop show 1-4	0-7 : stop show 8-247 : no change 248-255 : start show	All channels 2-5 must be off (value 0-7), before a new show can be started.
3			
4			
5			
6	blackout	0-247 : no change 248-255 : blackout	Sends out the blackout command to all paired units.
7	ping	0-247 : no change 248-255 : ping	Sends out the ping command (1x) to all paired units.
8	standby	0-247 : no change 248-255 : standby	Sends out the standby command to all paired units.
9	time offset enable	0-247 : no change 248-255 : time offset functionalit is on	Enable this channel first (set value to 248-255), it serves as a protection against accidental starts with unwanted time offset.
10	time offset – minutes	0-255 : minutes	Sets the minutes of time offset
11	time offset - seconds	0-59 : seconds (60-255 rounded to 59)	Sets the seconds of time offset
12	brightness (dimmer)	0-39 : MAX brightness (show) / blackout (live control) 40-255 : brightness level 1-6	Selects brightness level 1-6 for show playback / live control
13	red channel	0-255 : red value	Sets the red color channel
14	green channel	0-255 : green value	Sets the green color channel
15	blue channel	0-255 : blue value	Sets the blue color channel
16	static & dynamic effects	0-40 : static color 51-90 : dyn. effects #1 91-130 : dyn. effects #2 131-170 : dyn. effects #3 171-210 : dyn. effects #4 211-250 : dyn. effects #5 251-255 : random	Displays either a static (solid) color or one of the 5*8=40 predefined dynamic effects or random shuffle of these effects every 8 seconds.
17	A/B segment control	0-84 : A+B segment 85-170 : A segment 171-255 : B segment	Selects which segment will be currently controlled: A+B/A/B or type of random mode: type 1 : A+B together type 2 : A & B separately type 3 : random mix of 1 & 2
18	speed	0-255 : speed level 1-8	Selects speed level 1-8 for live control / random mode

To setup the DMX address of the FT Remote PRO, first make sure the DMX interface is turned on (**DMX: ON**), then select **SET ADDRESS**.

On the next screen use the **– / +** buttons to set the desired DMX starting address of the FT Remote PRO, the value can be set in the range 001-505 (8-ch mode) or 001-495 (18-ch mode).

*For setting larger values quickly, you can also use the **+50** button. To reset the address to 001, press and hold the **–** and **+** buttons simultaneously.*

*When valid DMX data are present on the **DMX IN** port of the FT Remote PRO, the DMX icon at the top of the display will flash.*

8. LTC mode

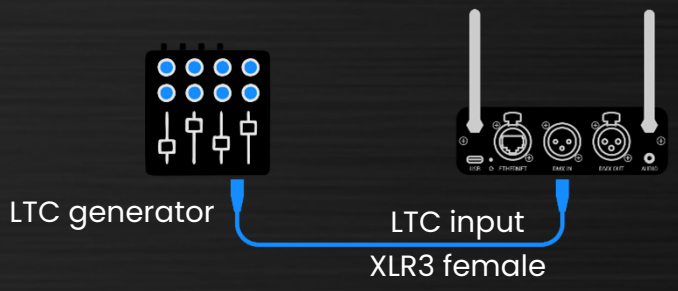
The LTC mode screen is used to turn on/off the Linear Timecode (LTC) interface, setup frame rate, freewheel and show triggers.

LTC is an industry standard for synchronizing audio & video devices. LTC works by encoding timecode into an audio signal, either recorded onto a track or generated by an LTC generator.

LTC is normally displayed in the format of **HOUR : MINUTES : SECONDS : FRAMES**.

Once activated, the running LTC timecode is displayed at the top of the LTC mode screen. For larger view, click the **CLOCK** button:

FT Remote PRO can read LTC over a standard XLR 3-pin cable:



Make sure the audio level of the LTC signal is set to maximum volume. When the audio level is low, the decoding of the LTC might fail.

To active the feature, in the LTC screen select the first **LTC** option. You have 2 options to choose from:

- **ON ARMED** – the LTC signal is received, show triggers are active (show 1-4 will start playing according to the preset triggers)
- **ON DISARMED** – the LTC signal is received, but show triggers are disabled.

LTC signal can be distributed in various frame rates. For a stable signal decoding, please select the correct value in the **FRAMES** option:

The **FREEWHEEL** option defines, how long the show will continue to run, when the LTC signal is lost:

Freewheel is useful in scenarios where LTC signal might experience dropouts. However, longer freewheel times reduce reaction time when LTC generator stops, so we recommend setting a value of several seconds.

Timecode triggers

TRIGGERS option is used to define specific LTC time marks (cues), when show 1-4 should start or stop:

Press **ADD TRIGGER** to create a new trigger - a new screen will appear:

For each trigger you can set:

- **LTC TIME** – set exact LTC time moment, when trigger should activate
- **SHOW** – start show number 1-4 / stop currently running show
- **OFFSET** – set show offset (start from a time point inside the show sequence)

Use the **DELETE** option to delete existing triggers that are no longer in use. You can create up to 99 different triggers.

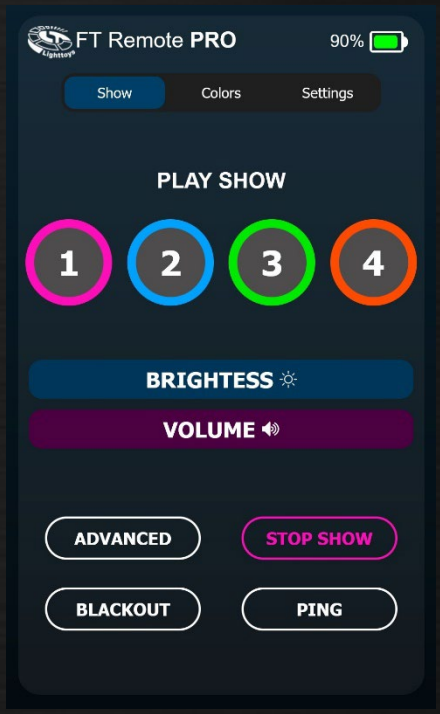
If more than one trigger is set to the same LTC time value, the trigger with a lower serial number will be processed.

*LTC signal is properly decoded even during a running show (e.g. between **SHOW 1** and **STOP** triggers). FT Remote PRO always looks to the left (timewise) whether there is any active trigger and if so, calculates the proper show offset and starts the show from the correct moment.*

Triggers can be also set more comfortably using the web browser interface, see the next chapter.

Web browser interface

Web browser interface (a.k.a. Web server) provides a convenient way of controlling FT Remote PRO's functions from any device with a web browser capability on the same network.



To start using it:

1. First check that both the FT Remote PRO and your device are connected to the same network.
2. Check the assigned IP address of the FT Remote PRO in the **INFO** screen (available in both WIFI and LAN mode).
3. Type in the IP address into the URL bar of your device and hit Enter.

A new screen will appear in the browser window:

The first tab **Show** is used to start your programmed sequences 1-4, similarly to the Show mode screen described earlier. When clicking the **ADVANCED** button, you can also configure a count-down timer and a show offset:

Show tab (Advanced) | Colors tab | Settings tab

The second tab **Colors** is a virtual keypad with colors & dynamic effects buttons, similar to the classic FT remote controller. You can also define your custom colors here and start random playback of the dynamic effects.

The last tab **Settings** enables you to perform new pairing of FT units, configure advanced network settings, OSC & Art-Net port number, LTC triggers.

HTTPS protocol is not supported. When typing in the IP address of the FT Remote PRO into the browser URL bar, make sure it has no prefix, or use just http://

Extra features

Button lock

In cases when the FT Remote PRO is controlled remotely, human input might not be needed and you may want to lock all front panel buttons against accidental presses.

To activate the button lock, press and hold the buttons **MODE + 4** simultaneously for **1 second**:

A padlock icon will show at the top of the screen:

To deactivate the button lock, press and hold the buttons **MODE + 4** simultaneously again, the icon will disappear.

USB-C charging & PoE

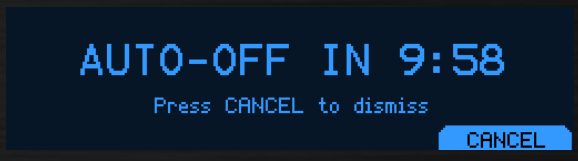
The FT Remote is powered from its built-in 2100mAh Li-ion battery and charges using the USB-C port. Use a dedicated 5V USB charger to enjoy 1.5A fast charging or 0.5A when using standard computer USB port.

In addition to the USB-C, you can charge / power the FT Remote PRO with the built-in 48V Power over Ethernet (PoE) functionality, using the RJ45 port.

Auto power off

Out of the box, the FT Remote PRO has **1 hour** inactivity timer enabled. Once the inactivity time has elapsed, the FT Remote PRO will automatically turn off, to save battery power.

The user is warned about the shutdown **10 minutes** in advance on the display (after 50 minutes of inactivity):



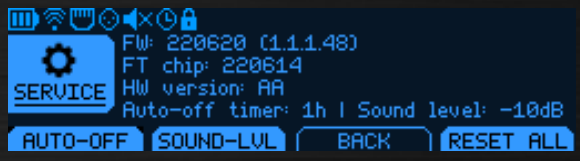
You can override the shutdown and reset the timer by pressing the **Cancel** or any other button.

The inactivity timer is reset automatically every time any of the below events happen:

- user presses any front panel button
- show is running
- any FT command received over I/O ports (example: a running LtComposer software)
- when the web browser interface is running in an active browser tab.

If the auto power off functionality doesn't suit your use, it can be turned off completely in the hidden Service menu screen, by pressing the buttons **MODE + 1** simultaneously for **5 seconds**:

A new screen will appear. Click the **AUTO-OFF** button to toggle between 1 hour timer or never. Then click the **BACK** button to return to the normal operation.



When the timer is disabled, the display will still turn off after 1 hour of inactivity, to save the battery and prevent the OLED display deterioration.

Audio output level

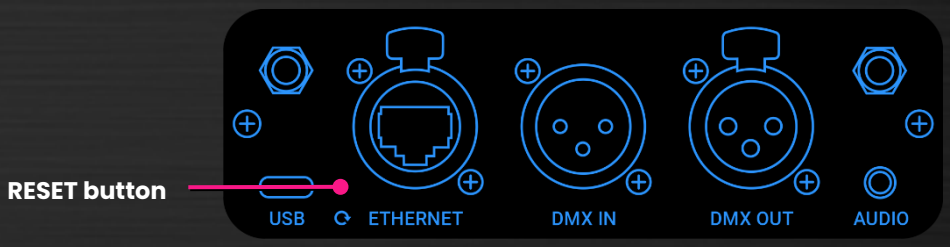
Out of the box, the FT Remote PRO's audio output is set to "HEADPHONES" volume level of **-2dBV**. If you find this level too loud or distorted, you can switch it to a lower "LINE OUT" level **-10dBV** by pressing the **SOUND-LVL** toggle button in the Service menu screen.

This higher volume level is similar to the "HEADPHONE OUT" on various personal audio players.

Click the **BACK** button to leave the Service menu and apply the new sound level of your choice.

Troubleshooting

In case your FT Remote PRO is not working properly, you can perform a hardware reset of the device.



Use a thin object (for example, straightened paper clip) to press the white button in the hole on the back panel. The Remote PRO will perform a hard reset and reboot.

OSC control

Open Sound Control (OSC) is a modern protocol for interconnecting various multimedia devices using the UDP/TCP data packets. OSC is quickly gaining ground and becoming the successor to the MIDI standard.

FT Remote PRO supports the OSC protocol in the "listen mode", expecting other devices in the "send mode" to send OSC messages that the FT Remote then interprets.

For maximum compatibility with external devices and applications, FT Remote PRO accepts two methods of OSC message formatting:

1. OSC address + OSC arguments – standard method of input, where address and arguments are transferred separately. Arguments are written down in this document as <data_type:value>, for example: <integer32:6> <float32:0.6279> <string:Hello>
2. OSC address inlining – both the address and argument values are chained together using just the address space of the OSC message.

OSC Message examples – method #1:

/lighttoys/ping – sends PING to all FT devices
/lighttoys/brightness <int32:6> – sets brightness to the 6th level (maximum)
/lighttoys/start <int32:1> – starts show #1 from time 0:00
/lighttoys/stop – stops the running show

/lighttoys/start <int32:2><int32:2000><int32:5000><int32:1> – starts show #2 from time 2000 milliseconds with 5 second countdown timer and the lowest brightness.

OSC Message examples – method #2:

/lighttoys/ping – sends PING to all FT devices
/lighttoys/brightness/6 – sets brightness to the 6th level (maximum)
/lighttoys/start/1 – starts show #1 from time 0:00
/lighttoys/stop – stops the running show
/lighttoys/start/2/time/2000/delay/5000/brightness/1 – starts show #2 from time 2000 milliseconds with 5 second countdown timer and the lowest brightness.

The ordering of OSC arguments must be followed for method #1, the optional arguments can be omitted from the right side to the left. When using method #2, the order of optional arguments (e.g. /time/2000, /delay/5000, /brightness/1) is irrelevant and can be swapped.

Currently, FT Remote PRO supports the following OSC commands. The compulsory part of the command is denoted in a **bold** text, the rest is optional. Parentheses e.g. (1-4), denote the accepted range of the value:

OSC command (method #1 - arguments)	OSC command (method #2 – address inline)	Description
/lighttoys/ping	**/lighttoys/ping**	Sends out the PING command to all paired FT devices.
/lighttoys/blackout	**/lighttoys/blackout**	Turns off the LED output of all paired FT devices.
/lighttoys/standby	**/lighttoys/standby**	Brings all paired FT devices to the standby mode.
/lighttoys/start <int32:show(1-4)> <int32:time> <int32:delay> <int32:brightness(1-6)> <int32:duration>	**/lighttoys/start/(1-4)** /time/(int32) /delay/(int32) /brightness/(1-6) /duration/(int32)	Starts the show on all paired FT devices. 'Time' is a positive offset into the show, 'delay' is a countdown to start , 'duration' clips the show run time. All timing parameters are entered in **milliseconds**.
/lighttoys/start/seconds <int32:show(1-4)> <int32:time> <int32:delay> <int32:brightness> <int32:duration>	**/lighttoys/start/(1-4)** /timeseconds/(int32) /delayseconds/(int32) /brightness/(1-6) /durationseconds/(int32)	In this alternative format all timing inputs are entered in **seconds** instead of milliseconds.
/lighttoys/stop	**/lighttoys/stop**	Sends out a command to stop any running show.
/lighttoys/brightness <int32:level(1-6)>	**/lighttoys/brightness/(1-6)**	Sets the brightness level 1-6 on all paired FT devices.

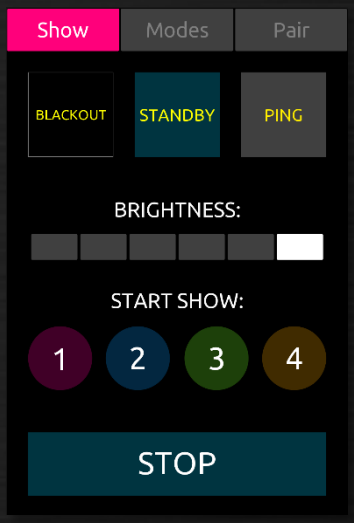
/lighttoys/color **<int32:red1(0-255)>** **<int32:green1(0-255)>** **<int32:blue1(0-255)>** **<int32:red2(0-255)>** **<int32:green2(0-255)>** **<int32:blue2(0-255)>**	**/lighttoys/color** /r1/(0-255) /g1/(0-255) /b1/(0-255) /r2/(0-255) /g2/(0-255) /b2/(0-255)	Sends out a command to set the A and B segments to a specific color combination on all paired FT devices.
/lighttoys/dynab **<int32:selAB(0-2)>**	**/lighttoys/dynab/(0-2)**	Sets the currently controlled segment. 0 = AB, 1 = A, 2 = B.
/lighttoys/dyncolorr **<int32:level(0-255)>**	**/lighttoys/dyncolorr/(0-255)**	Sets the red color value of the controlled segment.
/lighttoys/dyncolorg **<int32:level(0-255)>**	**/lighttoys/dyncolorg/(0-255)**	Sets the green color value of the controlled segment.
/lighttoys/dyncolorb **<int32:level(0-255)>**	**/lighttoys/dyncolorb/(0-255)**	Sets the blue color value of the controlled segment.
/lighttoys/dynmode **<int32:mode(1-5)>** <int32:position(1-8)>	**/lighttoys/dynmode/(1-5)** /pos/(1-8)	Sets the currently controlled dynamic effect and optionally also the position in it.
/lighttoys/dynpos **<int32:position(1-8)>**	**/lighttoys/dynpos/(1-8)**	Sets the position inside the dynamic effect.
/lighttoys/dynspeed **<int32:mode(1-8)>**	**/lighttoys/dynspeed/(1-8)**	Sets the speed 1-8 of the current dynamic effect.
/lighttoys/newpair	**/lighttoys/newpair**	Starts a new pairing process (all previously paired units will be forgotten).
/lighttoys/addtogroup	**/lighttoys/addtogroup**	Pairs extra unit(s) to the existing paired group.
/lighttoys/stoppair	**/lighttoys/stoppair**	Stops the ongoing pairing process.
/lighttoys/random <int32:delay/(1000-)> <int32:speed(1-8)> <int32:brightness(1-6)> <int32:mode(1-3)	**/lighttoys/random** /delay/(int32) /speed/(1-8) /brightness/(1-6) /mode/(1-3)	Starts a random shuffle of dynamic effects. 'Delay' is the duration of each effect in milliseconds (default is 8000, minimum 1000). 'Mode' selects which segment A+B/A/B will be randomized: type 1 : A+B together type 2 : A & B separately type 3 : random mix of 1 & 2

Consult your other device or software application (that you want to use to control the FT Remote PRO) how to implement the OSC functionality and configure the OSC commands per the table above.

The default OSC port of the FT Remote PRO is: 65535. If needed, you can use the web browser interface to change it.

TouchOSC app

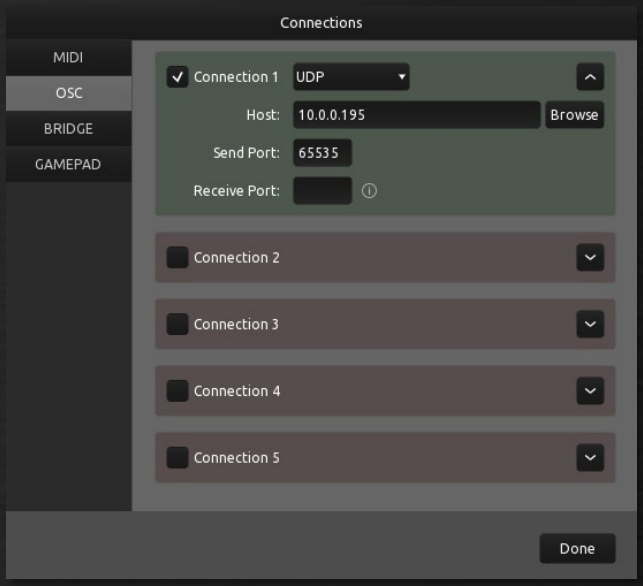
Our team has prepared a simple OSC control interface for the popular TouchOSC software, which can be run on mobile phones, tablets or desktops across various platforms.



TouchOSC is a paid software, but we are convinced that the low entry cost is well worth the powerful features.

You can download the **Lighttoys OSC control v1.1** from here. Please refer to the official TouchOSC manual how to setup the connection.

In the **Connections** window, please make sure the UDP protocol is selected, IP address of the host (the computer running LtComposer) is correctly filled in, and that you are using the same Port number in TouchOSC and LtComposer OSC console:



After proper setup, when you run the OSC interface using the play button at the top ribbon, clicking on the buttons should register in LtComposer OSC console. The TouchOSC interface is then ready to use.

Art-Net

Art-Net is a modern protocol for transmitting DMX512 data over UDP packets through wire(less) networks, similar to OSC. FT Remote PRO can be configured to listen for known DMX512 commands sent over Art-Net.

The default Art-Net port of the FT Remote PRO is: `6454`. If needed, you can use the web browser interface to change it, including also the Universe, Sub-Net and Net values.

External control

FT Remote PRO and its support for industry standard protocols, allows for even more advanced control with other software.

Chataigne software

Chataigne software is an open-source software devised to be the central hub in a project involving multiple interfaces, software, devices and sensors.
Specifically, you can use it to sync FT Remote PRO with Linear Timecode (LTC), MIDI Timecode (MTC), live control of FT devices and project automation.

To learn more about the Chataigne software, please visit the official website. To enjoy the above features, you also need to install the **FT module** plugin. Please read our user manual available here.

We wish you many breathtaking and successful shows with the Lighttoys FT Remote PRO!