

EVENT LIGHTING

RDMTESTER

RDM Compatible DMX Tester

USER MANUAL



For safety, please read this user manual carefully before initial use.

Event Lighting reserves the right to revise the manual at any time. Information and specifications within this manual are subject to change without notice. Event Lighting assumes no liability or responsibility for any errors or omissions. Please consult Event Lighting for any clarification or information regarding this item.

Version: 1 (1 September 2022)

Safety Instructions

Warning

- Do not open this device, there is no user-serviceable parts inside. Risk of electric shock.
- Do not operate this device in any location where excessive dust, heat, water or humidity may affect it.
- Do not operate this device if the housing or cables appear damaged.
- In case of a serious operating problem, stop using immediately.
- The maximum ambient temperature is 45° C. Do not operate this device at higher temperatures.

Power Supply

Power On

- Under battery power, long press [Menu] to power on.
- Under USB power, connect the cable to power on.

Power Off

- Under battery power, long press [Menu] to reveal the power off message box, release [Menu] to power off.
- Under USB power, disconnect the cable to power off.

Power Switchover

- To switch from battery to USB, connect the USB cable with a voltage of 5V and minimum current of 200mA.
- To switch from USB to battery, hold [Menu] then disconnect the USB cable. When the power indicator no longer says 'USB', release [Menu].

Keyboard

RDMTESTER has a full QWERTY keyboard, making it possible to input any test. The soft keyboard can be operated using both the touchscreen or the physical buttons.



Touchscreen

Press the relevant button to input the character.

Physical Buttons

Use [Up], [Down], [Left] or [Right] to select a character. The currently selected character is indicated by the pink highlight. Press [Enter] to input the selected character.

When the focus is on the input box, press [Left] or [Right] to select a character, then press [Enter] to delete that character.

To finish input, press [Enter] on the soft keyboard. To cancel input, press [Exit] on the soft keyboard. To input symbols, press [@] to switch to the symbol keyboard.

Functions

Touch [Menu] on the top left of the display, or press [Menu] to open the functions menu. Touch the desired function or press [Up] or [Down] to select the desired function and press [Enter] to open.

MENU		12:07:23		USB
RECEIVE DMX	MAX	VAL		
SEND DMX	000	000	000	▲
CABLE TESTER	000	000	000	
CHANNEL TRACER	000	000	000	
TIMINGS	000	000	000	
FLICKER FINDER	000	000	000	
SEQUENCE	000	000	000	
LIGHT SENSOR	000	000	000	
MIDI TEST	000	000	000	
OPTIONS	000	000	000	▼
008	255	000	000	
009	255	000	000	
010	255	000	000	
011	255	000	000	
012	255	000	000	
013	255	000	000	
CH:----		NO DMX		OPTION

Receive DMX

RDMTESTER will receive DMX signal and show the current DMX status, including every channel's current value, maximum value and minimum value.

Press [Up], [Down], [Left] or [Right] to select the channel you want to check then press [Enter] or touch [Option] to open the Options menu.

- Store scene: Store current received DMX data as a scene in the SD card.
- Show level as: Change data display style (percentage, decimal, hexadecimal).
- Addresses: Change the visible DMX address range (all addresses, valid addresses).
- Clear: Clear the current, maximum and minimum values and re-check the received DMX values.

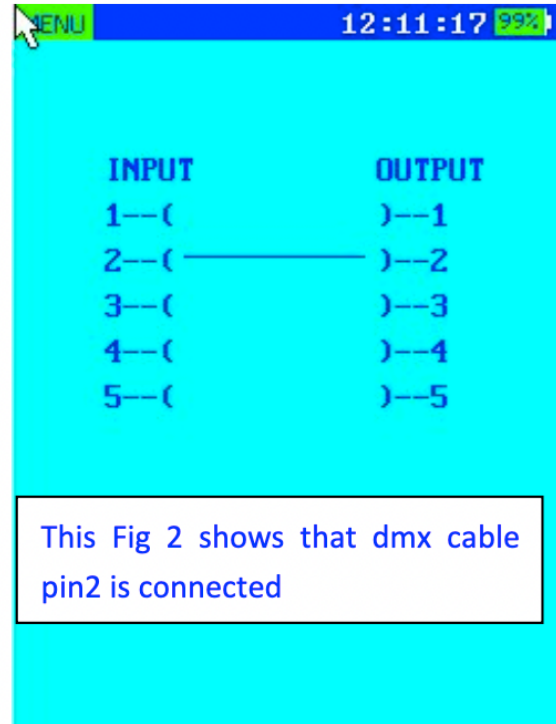
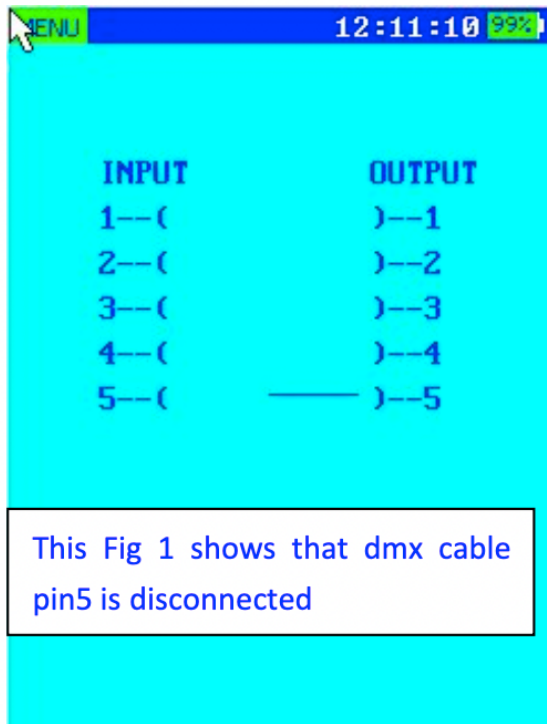
Send DMX

Touch each row to adjust the channel value and master value, or press [Up], [Down] to select channels and [Left], [Right] to change values then press [Enter] or touch [Option] to open the Options menu.

- Clear: Clear current output.
- Store scene: Store current output as a scene in the SD card.
- Load scene: Load the scenes in the SD card to the current output.
- Refresh rate: Set DMX refresh rate.

Cable Tester

This function will test all 5 pins of the connected DMX cable.



Channel Tracer

This function will test the real-time values of the DMX signal and show the result in curves. 6 channels can be shown at the same time in different colours.

The colours can be changed by using the menu at the bottom of the screen. Use the touch screen or [Left], [Right] to change the colours.

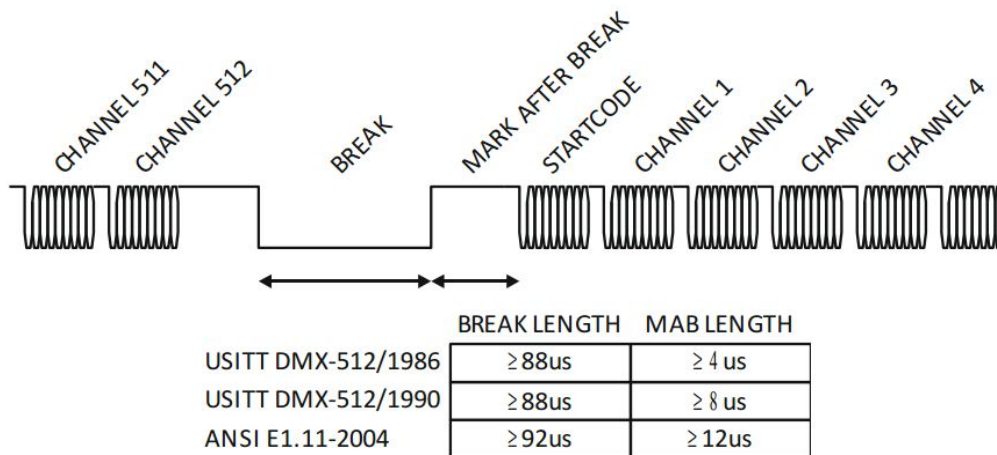
To disable the display of a particular curve, double tap it, or select it and press [Enter].



Timings

This function analyses the following DMX timings:

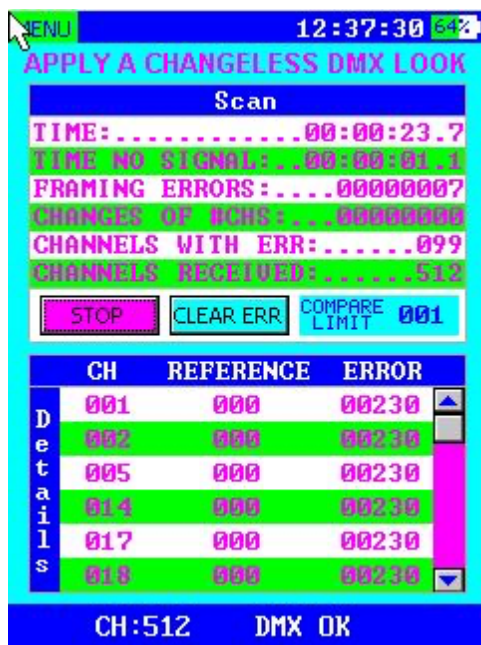
- DMX signal: Shows if the DMX signal is OK or faulty.
- Refresh rate: Shows the number of frames received per second.
- Break length: Shows the length of the break in microseconds.
- Mark after break (MAB): Shows the mark after break in microseconds.
- Channels received: Shows the number of channels received.



Flicker Finder

This function tests DMX signal stability. Use [Left], [Right] to select the function, press [Enter] to activate the function.

- START/STOP: start or stop the test.
- CLEAR ERR: clear any error data.
- COMPARE LIMIT: set the allowable limit of signal jump.
- TIME: the total time elapsed in the test.
- TIME NO SIGNAL: time in the test in which there was no signal.
- FRAMING ERRORS: count of framing errors.
- CHANGES OF #CHS: count of channel value errors.
- CHANNELS WITH ERR: count of channels with errors.
- CHANNELS RECEIVED: count of total channel received.

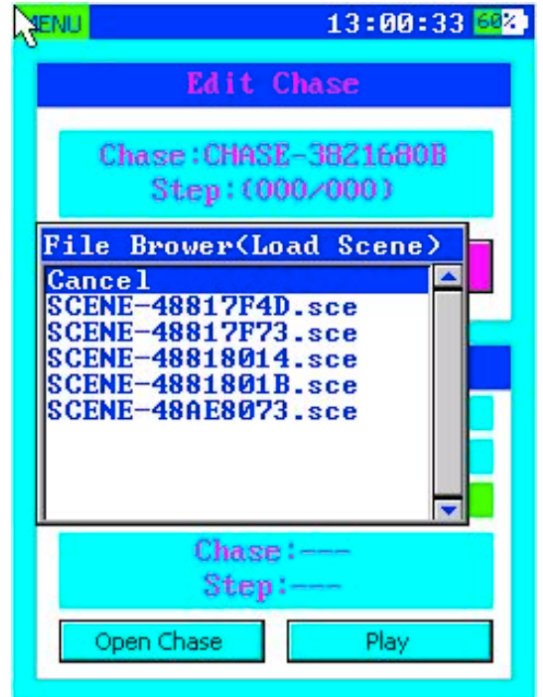


Sequence

This function is used to play or edit chases.

- New Chase: create a new chase.
- Add step: Add a step into the chase. When selected, a file picker will appear, select one scene file to add to the chase.
- Open Chase: load a chase.
- Play: play the chase.
- Master-xx: master control the chases.
- Speed-xx'xx"x: set the chase time in min:sec:ms.

- Fade: set the chase fade time.



Light Sensor

This function is used to check the PWM frequency and duty ratio of a fixture.

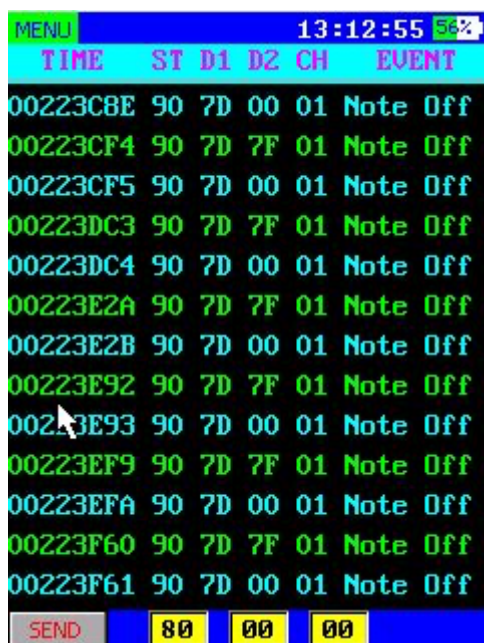
Press and hold [Enter], then point the light sensor at the fixture to test. When the data stabilises, release [Enter]. The result will be displayed on screen.



Midi Test

This function is used to send or receive MIDI signals.

The information to send is listed on the bottom of the screen. Press [Send] to send the information.



System Settings

- Device name: rename the device.
- Backlight brightness: adjust the display brightness in intervals of 10%.
- Turn off if idle: Time until the device turns off automatically when on battery. Possible values: NO (stays on), 1 min, 2 min, 3 min, 5 min, 10 min. The time is reset when the screen is interacted with, or a button is pressed. The device will not turn off if it is powered by USB.
- Date: set the date.
- Time: set the time.
- IP address: set the IP address.
- NetMask: set the net mask.
- Network Universe: set the universe.
- Network Protocol: set the network protocol.
- Default Settings: reset to factory settings.
- Firmware version: display current firmware version.
- Touch screen calibration: use to calibrate the touchscreen. If there is a large discrepancy, this step may be needed twice.

Network functions are only available in DMX out. When network functions are used in [Send DMX] or [Sequence], the device will use the network (Art-Net/sACN) to send DMX data at the same time.

Technical Specifications

Hardware

- Display type: full colour LCD
- Display resolution: 240x320
- Memory: SD card
- DMX in port: 5-pin male
- DMX out port: 5-pin female
- DMX port electrical standard: ANSI E1.11/ANSI E1.20
- USB port: Micro USB type B
- Battery: 9V block battery
- USB power consumption: 300mA max
- Cable tester: 5-pin, open circuit, short circuit, wrong wiring
- Operating temperature: 0°C-45°C
- Dimensions: 67x115x45 mm
- Weight: 343g (without battery)

Firmware

- Received DMX channels: 512
- Transmitted DMX channels: 512
- Refresh rate: 10,15,20,25,30,35,40 frames per second
- Transmitter break length: 160-180 microseconds (not configurable)
- Transmitter MAB length: 28-32 microseconds (not configurable)
- Timing measurement: Frames per second/break/MAB
- Display format: Percentage, decimal, hexadecimal
- DMX scene storage: SD card, 512 channels each
- Number of sequences: varies based on SD card capacity
- Steps in each sequence: 99

Warranty

Please refer to your local dealer or please contact Event Lighting Pty Ltd.