+swisson

XMT-450

DMX Tester & RDM Controller

Firmware version 1.06

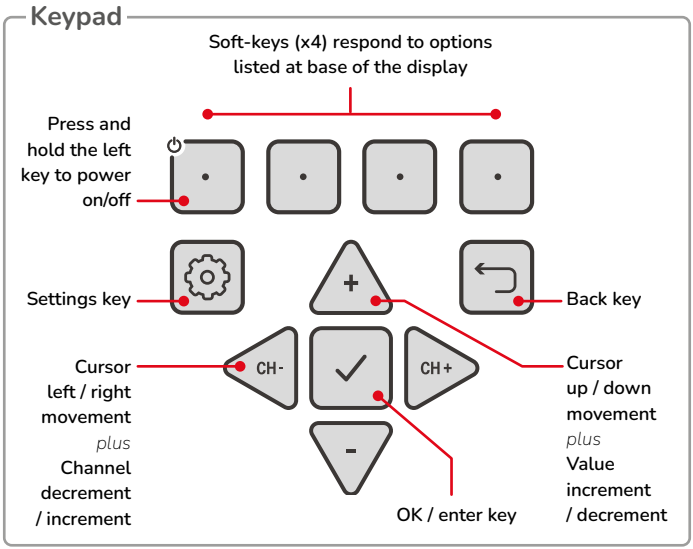
quick start

Contents

XMT-450 features

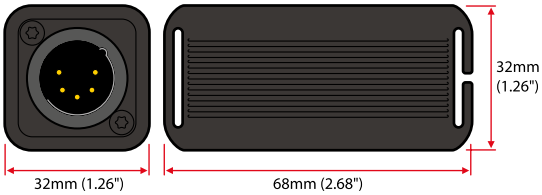
The XMT-450 has a clear full-color display, a robust membrane keypad and rechargeable battery.

The tough chassis and industrialized connectors ensure this tool will reliably serve you for a long time.



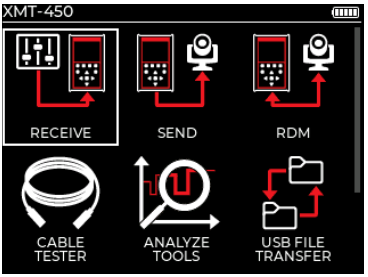
Cable test dongle

XMT-450 can test your loose DMX cables when they are connected between its male and female XLR connectors. If you need to test DMX cables that are fixed in place, use the cable test dongle. Simply connect the compact dongle at one end of the cable and the XMT-450 at the other - then use the Cable Tester section (see page 8) to verify the connected cable.

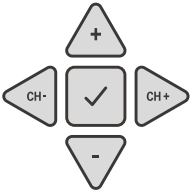


Home page

When you first switch XMT-450 on you will see the home page:



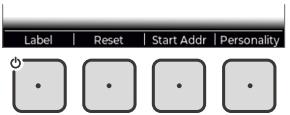
Use the arrow keys to move the highlight box between the app icons. Also use these keys to move between options within an app and to change settings.



When the required app or option is highlighted, press the OK key.

Press the Back key to go return to the previous page.

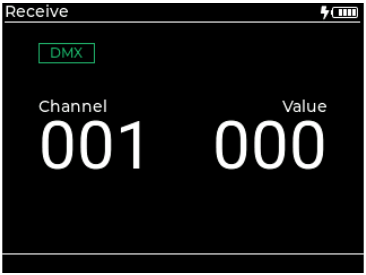
In each app the changing functions of the four soft-keys are listed above them on the screen.



To view configuration items for a particular app, press the Settings key (not used in all apps).

Receive

This app allows you to view channel levels for a valid input signal received at the DMX connector. Channel/Address Value/Level can be viewed in decimal, hex or percentage notation.



Navigation

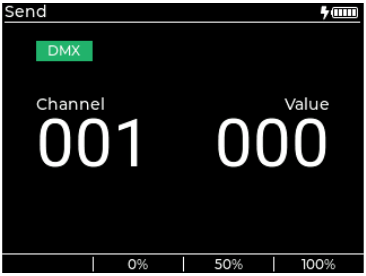
- Choose Channel/Address:
- View the Settings page:
- Return to previous page:

Settings page

- Store Scene: Store the current received DMX data to a static scene (1–99)
- Show Value As: Decimal / Hex / Percent
- Address Mode: All / Non-Zero *(when selected, shows only channels that have a value above 0)*
- Display Mode: Normal / Table / Graph
- Restore Defaults: Reset Receive App settings to defaults.

Send

This app allows you to send channel levels to one or more devices connected via the DMX connector. Channel/Address Value/Level can be viewed in decimal, hex or percentage notation.



Navigation

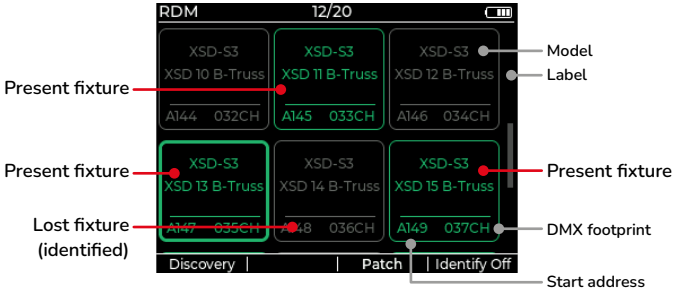
- Choose Channel/Address:
- Change the channel value:
- View the Settings page:
- Return to previous page:

Settings page

- Clear All Channels: Sets all channels to zero
- Store Scene: Store the current received DMX data to a static scene (1–99)
- Load Scene: Recall the stored DMX values (1-99)
- Show Value As: Decimal / Hex / Percent
- Refresh Rate: 5Hz / 10Hz /15Hz / 20Hz / 25Hz / 30Hz / 35Hz / 40Hz / 44Hz
- Edit Mode Normal / Sticky Value *(The current channel value is moving with the channel selection)*
- Advanced: Advanced settings for Send App
- Restore Defaults: Reset Send App settings to defaults.

RDM

This app deals with the Remote Device Management features of connected fixtures that support the protocol. After opening, a discovery will be made to find all compatible fixtures (incremental discoveries are also carried out as a background task). Discovered devices will be presented as follows:



Navigation

- Perform new discovery: [•] [Discovery]
- Highlight required fixture: [CH+] [CH-] [+] [−]
- Open highlighted fixture: [✓]
- Return to previous page: [↩]

Settings:

Details of a chosen fixture are displayed on a new page.

The four soft-key options allow you to:

- Set the RDM label
- Reset the fixture
- Change the start address
- Change the fixture personality

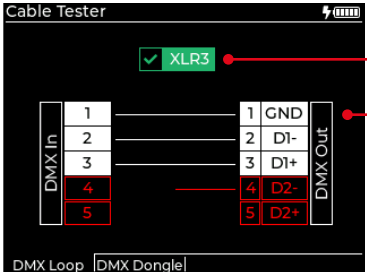
Press [▽] to navigate to additional PIDs, or to a subdevice menu if available

Cable Tester

This app allows you to test DMX cable. Loose DMX cables can be tested using the XMT-450 alone; fixed DMX cables require the cable test dongle to be also used - see page 3.

DMX Loop

The app will first show the DMX loop page to test loose DMX cables connected between the input and output XLR sockets.



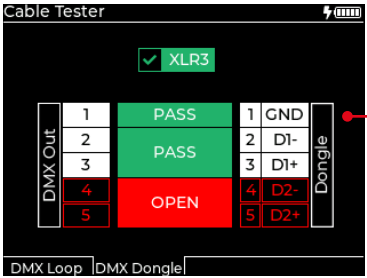
Cable pass / fail indication

Pin-by-pin status

White lines: Valid
Red lines: Open or incorrect
Red animated: Cross connection

DMX Dongle

When testing a DMX cable between the XLR connectors of the XMT-450 and the dongle, press the DMX Dongle soft-key to show:



Pass/Fail indications

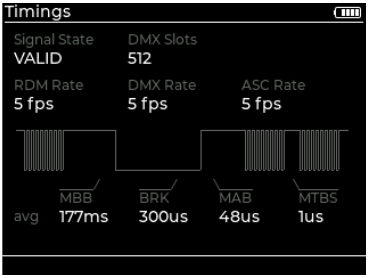
Note: Unlike the loop test option, dongle tests are carried out in pairs, e.g., pins 2 and 3 are tested together. If a short occurs between pairs (e.g. short between pins 2 and 4), both pairs will be marked as failed. Similarly, if an open circuit occurs on one line within a pair, both lines in the pair will be shown as open.

Analyze Tools

Timings

This app provides a breakdown of DMX timings for signals connected to the XMT-450 input XLR connector.

The following signal aspects are listed in real time:



Navigation:

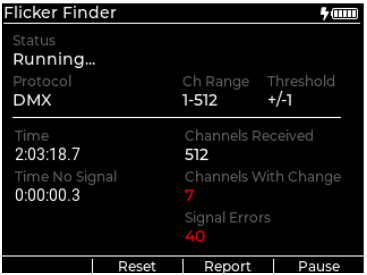
- View the Settings Page
- Signal State shows if the signal is present and error free.
- RDM Rate shows the number of RDM frames per second.
- DMX Rate shows the number of DMX frames per second.
- ASC Rate shows the number of all other frames received per second.
- DMX Slots show how many data slots are in the DMX packets.
- MBB (Mark Before Break) is the high value pause at the end of the last data packet of variable length.
- BRK (Break) is the low value pause to denote the beginning of a new data packet.
- MAB (Mark After Break) is low value pause to separate break from the ensuing data.
- MTBS (Mark Time Between Slots) is the high signal level between two consecutive slots.

Signal timings(values for receivers)

Designation	Min	Typical	Max
MBB (Mark Before Break)	0	-	< 1.00 s
BRK (Break)	88 us	176 us	-
MAB (Mark After Break)	8 us	-	< 1.00 s

Flicker Finder

The Flicker Finder monitors DMX lines for unexpected value changes and signal errors over an extended period. To use it, apply a static look across a range of channels and start the Flicker Finder. Any value flicker, error, or lost signal is tracked and reported by the app, making it easy to identify unstable channels or fixtures.



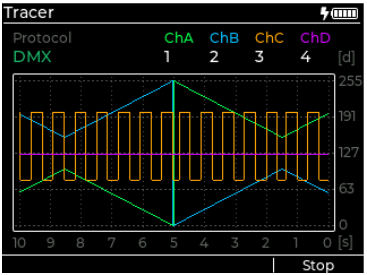
Navigation

- View the Settings page: ⚙
- Reset the current measurement: • [Reset]
- Show the Flicker Finder report: • [Report]
- Pause the current measurement: • [Pause]

Tracer

With the Tracer, DMX signal can be observed over time. Up to four channels on the same universe can be observed on one of the four channels (A-D).

To change assignment, enable/disable channels or to set the time base, go to settings menu.

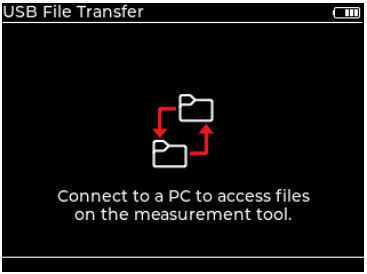


Navigation

- View the Settings page:
- Stop and resume the tracer: [Stop/Run]

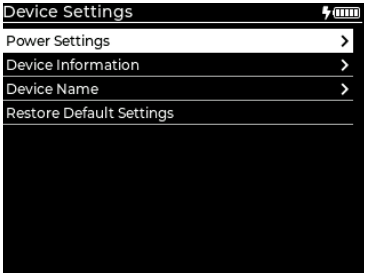
USB File Transfer

Opening the USB File Transfer App will put the XMT-450 into USB mass storage mode. In this mode, it is possible to access the device's internal 4GB file system, allowing you to copy and paste data to and from the device. Attention must be paid when deleting system folders such as SCENES and SEQUENCES, as this may result in data loss. The memory can also be used as flash storage for show files, firmware updates, or other user data.



Device Settings

This app contains assorted settings related to the operation of the XMT-450.



General navigation

- Choose option/setting:
- Return to previous page:

Power Settings

- Brightness - Screen brightness in steps of 10%. Default: 50%
- Turn Device Off After - Off / 2 Min / 5 Min / 10 Min / 30 Min / 1 Hour - of no user input.
- Reduce Display Intensity After - Off / 15 Sec / 30 Sec / 1 Min / 2 Min - after no user input.

Device Information - various XMT-450 internal details.

Device Name - Change the device name shown on the start screen during boot.

Restore Default Settings - returns XMT-450 to standard settings.

Battery charging

For charging, any common USB charger with at least 4.5W can be used (the charging port has a USB-C connector). For minimal charging time, we recommend using one of the following types (with a USB-C adapter where necessary):

- USB 3.2 Type-A (7.5W, 5V)
- USB Type-C (>=7.5W, 5V)
- USB BC1.2 (7.5W, 5V)

Using USB 1.0 or 2.0 chargers with power less than 4.5W is possible but not recommended. This will take a long time, and the XMT-450 internal protection system might stop the charging process after multiple hours of charging.

Technical information

Dimensions	WxHxD 122.5 x 75.3 x 43mm (4.82” x 2.96” x 1.73”)
Weight	445g (0.98 lbs)
Operating temperature	-20°C to 50°C (-4°F to 122°F)
Charging temperature	0°C to 50°C (32°F to 122°F)
Rechargeable battery	3.6V, 3200mAh
Protocol standards	ANSI E1.11 (DMX-512), ANSI E1.20 (RDM) EIA-485 (electrical standard for signal ports)

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