INSTALLATION & USER'S MANUAL

PHILIPS

Strand Lighting

DIMFix Tester

Handheld DMX512 / RDM / MIDI Signal Tester

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DIMFix Tester Installation & User’s Manual

IMPORTANT INFORMATION

Warnings and Notices

When using electrical equipment, basic safety precautions should always be followed including the following:

a. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**.

b. For indoor, dry locations use only. Do not use outdoors.

c. Do not mount near gas or electric heaters.

d. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.

e. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.

f. Not for residential use. Do not use this equipment for other than intended use.

g. Refer service to qualified personnel.

SAVE THESE INSTRUCTIONS.

WARNING: You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

WARNING: Refer to National Electrical Code® and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to personnel.

WARNING: This equipment is intended for installation in accordance with the National Electric Code® and local regulations. It is also intended for installation in indoor applications only. Before any electrical work is performed, disconnect power at the circuit breaker or remove the fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation.

WARNING! This unit contains rechargeable batteries and should be properly disposed of according to applicable local and federal disposal regulations.

Additional Resources for DMX512

For more information on installing DMX512 control systems, the following publication is available for purchase from the United States Institute for Theatre Technology (USITT), "Recommended Practice for DMX512: A Guide for Users and Installers, 2nd edition" (ISBN: 9780955703522). USITT Contact Information:

USITT
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Syracuse, NY 13206-1111 USA
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www.usitt.org

Philips Strand Lighting Limited Two-Year Warranty

Philips Strand Lighting offers a two-year limited warranty of its products against defects in materials or workmanship from the date of delivery. A copy of Philips Strand Lighting two-year limited warranty containing specific terms and conditions can be obtained from the Philips Strand Lighting web site at www.strandlighting.com or by contacting your local Philips Strand Lighting office.

TABLE OF CONTENTS

PREFACE

1. About this Manual

The document provides installation and operation instructions for the following products:

- DIMFix Tester (catalog number XXXXX)

Please read all instructions before installing or using this product. *Retain this manual for future reference*. Additional product information and descriptions may be downloaded at www.strandlighting.com.

2. Getting Started

Unpack the DMXFix Tester

Unpack the DIMFix Tester from the packaging and check that the following components are contained within. If any parts are missing, or damaged, please contact the carrier and your nearest Philips Strand Lighting office.

DMXFix Tester

DIMFix Tester Components (catalog number XXXXX):

- DIMFix Tester
- AC to DC Power Supply (recharging unit for on-board 9V battery)
- Wrist Strap
- Installation & User's Manual (this document)

DIM1 PORTABLE DIMMER OVERVIEW

1. DIMFix Tester Description

The Strand Lighting DMXFix is a professional DMX, RDM, and MIDI handheld tester with a rechargeable battery.

The use of a simple rotary thumb wheel with an easy-to-read four line by twenty character LCD display provides a simple user interface allowing the user to navigate the on board menus and select functions intuitively.

Product Features

- Tests transmission and receiving capabilities of DMX512, RDM, and MIDI data systems
- Compact size, light weight, and easy to use
- LCD display with easy-to-understand menus:
  - DMX packet test
  - DMX data RX
  - DMX data TX
  - RDM Control
  - DMX 1000K Mode
  - Moving light
  - Save Cue
  - Cable test
  - MIDI data RX
  - System setup
- Simple to use rotary thumb-wheel control to scroll and select menu options
- Built-in rechargeable batteries and wrist strap
- CE marked

WARNING! This unit contains rechargeable batteries and should be properly disposed of according to applicable local and federal disposal regulations.

2. DMXFix Tester Components

Front View - Menu and Control

End View - Connections

*For more information, see "DMX512 Connections" on page 6.

INSTALLATION AND SET UP

1. Power Requirements

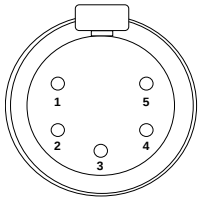
The DIMFix Tester operates on 9 volts DC through its on-board, rechargeable battery. The unit is supplied with an AC to DC power supply charger. The unit can operate either via battery or will connected to it AC to DC power supply.

To decrease battery charging time, do not use the DIMFix Tester while it is charging. It will take approximately three to five hours to fully charge the battery. When the battery is fully charged, the DIMFix Tester can operate for approximately six to eight hours on the battery.

2. DMX512 Connections

The DIMFix Tester connects and tests DMX512 signal communications in networks, devices, etc. Below illustrates basic DMX512 connection requirements.

Note: For more information on DMX512 networking and systems, refer to "Additional Resources for DMX512" on page 1. For DIMFix Tester DMX512 menu operation, refer to "OPERATION" on page 7.



DMX512 Connections

DMX512 Signal	XLR Pin
Common (Drain)	1
DMX512 -	2
DMX512 +	3

Note: Remaining pins on connector are not used.

PHILIPS Strand Lighting

OPERATION

1. Overview

The Strand Lighting DIMFix Tester is a professional DMX, RDM, and MIDI handheld tester. The unit contains a simple-to-use rotary thumb wheel with an easy-to-read four line by twenty character LCD display. These features allow users easily and quickly navigate the menus and select functions intuitively.

2. Menu System Options

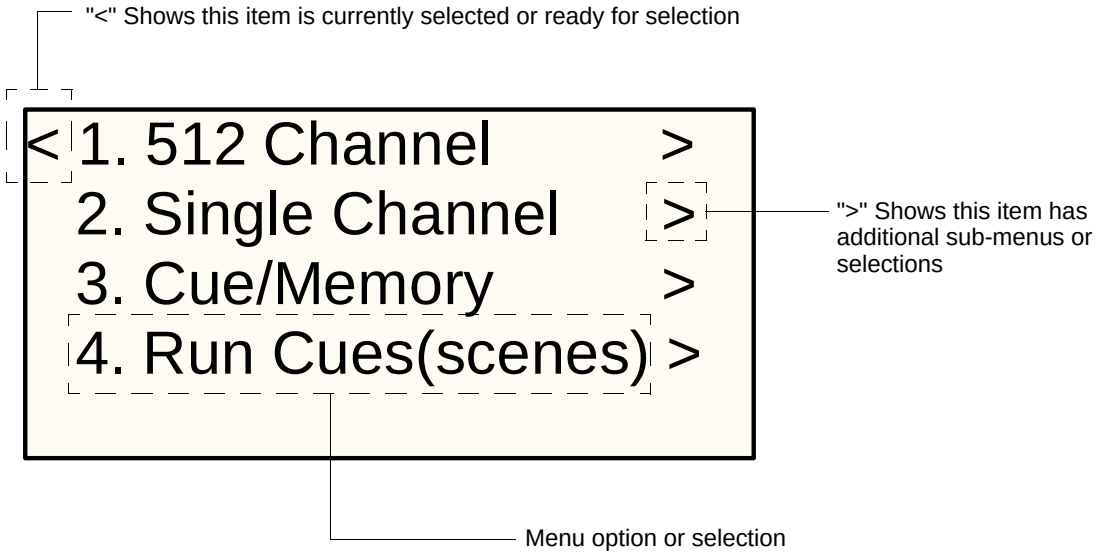
The DIMFix Tester offers the following menu options:

- DMX packet test
- DMX data RX
- DMX data TX
- RDM Control
- DMX 1000K Mode
- Moving light
- Save Cue
- Cable test
- MIDI data RX
- System setup

Note: Each menu option is outlined in this section of the manual.

3. Menu System

Please familiarize yourself with the on-board LCD display menu components and conventions.



DMXFix LCD Display Example

System Set Up

System Set Up allows users to configure the DIMFix Tester as desired. There are three Sub menus available under System Set Up:

```
< System set up :
 1. DMX setting     >
 2. English         >
 3. Display setting >
```

- DMX Setting *(sets the various modes for displaying, testing, operating, etc. DMX signals)*
- English *(currently, English is the only available language setting)*
- Display Setting *(sets the contrast level of the LCD display and turn the backlight ON or OFF)*

DMX Setting

DMX Setting provides the following options:

```
< 1.DMX
  Start code TX : 000  >
  MAX value : Normal >
  ?              Confirm >
```

- Start Code TX. Start Code TX allows the setting of the start code for DMX. The default value is 000. Under normal use, it is not necessary to change this value.
- Max Value (maximum value). Max Value offers two settings - Normal Mode and Hold Mode.
    a. Normal Mode shows data in real time and changes as data changes.
    b. Hold Mode holds and displays the maximum value detected.

Language

Currently only English is available. This parameter offers no options.

Display Setting

Display Setting offer three options:

- Contrast_Level. Contrast_Level allows the LCD display's contrast / brightness to be adjusted for better visibility in various lighting conditions. The contrast can be set between 01 and 10. Note, Contrast_Level default is 05.
- Back Light. Back Light allows users to either turn ON or OFF the DIMFix Tester LCD display's back light. Note, turning OFF the back light will extend the unit's battery life.
- Display. Display sets the way data is displayed in Decimal, Hexadecimal, or Percentage formats.

NOTES:

- When you have made your selections you must select Confirm to store them.

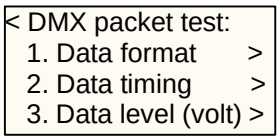
To exit setup select the < on the first line.

DMX Packet Test

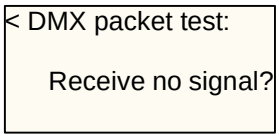
In order to initiate and test DMX512 signals, you must have a DMX512 source or control system connected to the DIMFix Tester at the DMX Input connection.

To select and run DMX Packet Test:

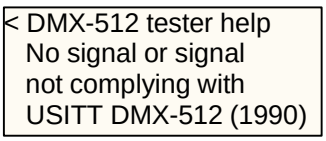
1) Rotate thumb wheel until DMX packet test appears.



2) Press the wheel to access DMX packet test menu.
3) If a DMX512 is not present or connected to DIMFix Tester and you try to access any of the following menu options; Data format, Data timing, Data level (Volt), the LCD display will show:



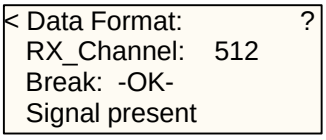
4) Rotate the thumb wheel to highlight Receive no ?. Press wheel and you will see:



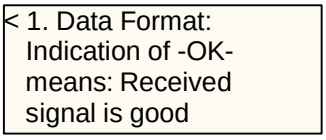
5) If DMX512 system is connected, be sure it is operating and properly connected.
6) If the DMX signal is present the DMX packet will be tested.

Data Format

1) Selecting Data Format will display the number of DMX channels being received and if the packet is within USITT DMX-512 (1990) standards.



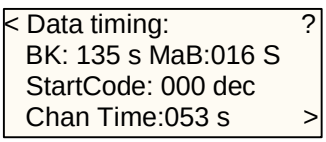
2) For further information select ?. The LCD display will show:



3) To return to the previous menu use the thumb wheel to select <. Selecting this will take you back to the main DMX Packet test menu.

Data Timing

1) Select Data timing using the thumb wheel. You will view all the parameters of the connected DMX512 signal:



Note: This viewed information is dynamic, so it will change as the DMX512 signal parameters change.

2) Select > to change from Channel Time to Period.
3) For further information select ?. The LCD display will show:

```
< 2.Data timing:
  Break min.88 s
  MaB min. 8 s
  Chantime min. 44 s
```

Data Level (Volt)

1) Select Data Level (Volt) using the thumb wheel.
2) The LCD display will show the voltage strength of the DMX512 signal. It will display the voltage level (in volts) and if the signal is Good or not.

```
< Data Level(Volt)      ?
        --Good-->
■ ■ ■ ■ ■ ■ --
  Level = 4.44V
```

3) For further information select ?. The LCD display will show:

```
< Data level
  Reception may still
  be possible with
  lower levels
```

4) To return to the previous menu use <.

DMX Data Received

This function allows you to analyze the incoming data stream. Select it by clicking on the > symbol next to DMX data-RX on the main menu screen.

```
< DMX data RX
  1. Barchart display   >
  2. Value display      >
  3. Min/ max display   >
```

There are three options for displaying the information:

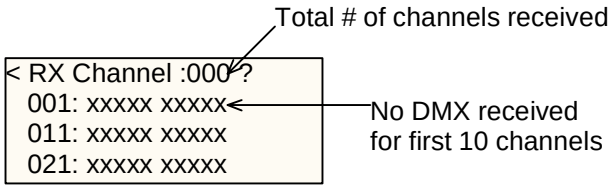
- Barchart display *(displays a signal strength meter)*
- Value display *(displays all received values)*
- Min / max display *(maximum and minimum DMX512 values received)*

There are two display modes, Normal and Hold. The default setting can be changed in the System Setup menus (See "System Set Up" on page 8).

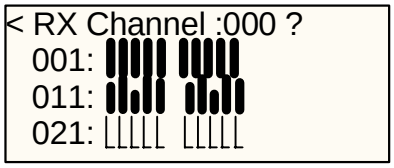
- Normal Mode *(displays the current values, as received, in real time)*
- Hold Mode *(only displays the maximum level or value of the channel when tested)*

Barchart Display

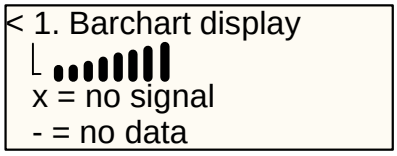
1) Rotate thumb wheel until Bar Chart mode appears. Press thumb wheel to select Barchart Display mode. If DMX512 signals are not present, the LCD display will show:



2) If the DMX signal is present, you will be able to see the channel levels for each channel represented as a bar graph.



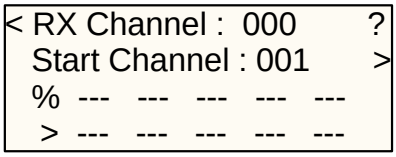
3) Each line can indicate the values of 10 channels. To select channels not displayed on the first page rotate the thumb wheel to select > , then press wheel . At this time, you can rotate the thumb wheel forwards or backwards to change which banks of DMX512 channels are displayed.
4) Selecting ? provides further information. The LCD display will show:



5) To return to the menu click the thumb wheel.
6) To return to the main DMX Data RX menu, select < and click it.

Value Display

This option can display the value of signal input by the means of DMX values (0-255), hexadecimal and percentage. Rotate the thumb wheel forward to enter the Value display option. If there is no information being received the LCD will show:



1) The default total channels is set to be 000 and the start channel is always automatically preset to be 001.
2) If you would like to change the start channel, rotate thumb wheel to select > at the right side of the LCD display. You can scroll to the desired channel number and then press the thumb wheel again to confirm.

3) If the unit is receiving a DMX512 signal the LCD display will show the data. The total number of DMX512 channels being received will be displayed as will the value for each channel.

```
< RX Channel :  512      ?
  Start Channel : 001    >
    255  255  255  128
>  000  000  000  153
```

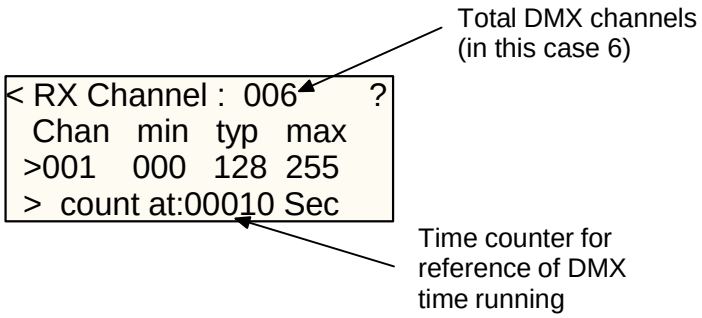
4) To change the display between DMX, Percentage and Hexadecimal values use the thumb wheel to select > on the lower left of the LCD screen. You can click the thumb wheel to toggle through the three options. The display values will change to show the new settings.
5) ? will display the options available.
6) To return to the main DMX Received Menu, select the < by navigating and selecting it with the thumb wheel.

Min / Max Display *(Minimum / Maximum Display)*

This mode allows you to record the Minimum DMX and Maximum DMX values and the current DMX512 signal for any channel. The DIMFix Tester will display the results from your selection in Value Display mode. DMX, Hexadecimal, or percentage values will be shown (as selected). If a DMX512 signal is not present, the LCD display will show:

```
< RX Channel :  000      ?
  Chan   min   typ   max
 >001     ---   ---   ---
 >  count at:00000 Sec
```

If DMX is present the LCD will display the information for the selected channel:



- Min is the lowest level the current channel has been at in the current DMX string.
- Typ is the current value of the channel.
- Max is the highest level the current channel has been at in the current DMX string.

1) To change the channel currently selected use the thumb wheel to move to > on the third line of the display.
2) Click the thumb wheel, and then use the dial to move through the channels. Press the thumb wheel to permanently select a channel.
3) To restart the DMX stream use the wheel to move to the > in the fourth line of the menu.

Note: Each time you click the thumb wheel it will reset the DMX string to 00000.

---

4) To return to the main Min/Max display menu, select the < on the top line.

DMX Data Transmit

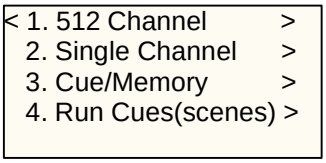
When you turn on the DIMFix Tester and there is an incoming stream of DMX512 data, it will be passed through and transmitted via its DMX output connector. If, at anytime, the incoming DMX512 stream is lost, the last values will be stored and retransmitted. It is then possible to select a recorded scene on the DIMFix Tester and play it back. This makes the DIMFix Tester ideal as a simple back up.

NOTES:

- If you select the Cable test or MIDI RX functionality on the DIMFix Tester, the incoming DMX512 data stream will not be transmitted.
- Similarly if DMX Data-TX is selected and active, it will take precedence and the channel levels set on the DIM-Fix Tester will be transmitted / broadcasted.
- While in DMX Data-TX mode, you can output any scenes stored in the DIMFix Tester. These stored scenes will take priority over any incoming DMX512 data stream.

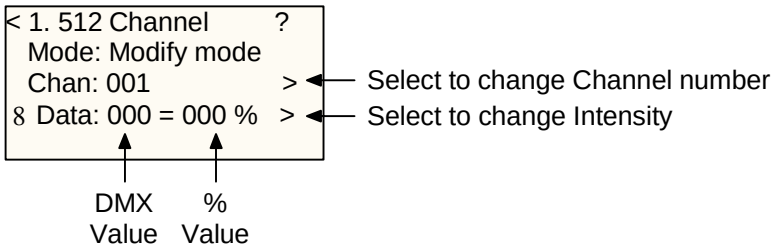
Accessing DMX Data-TX:

1) From the main menu, using the thumb wheel, find and select DMX Data-TX.
2) The LCD will show the four options available:

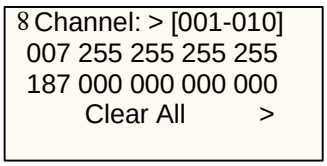


512 Channels

1) This mode allows the user to go through and view all 512 channels and the levels set for them. The LCD display will show:

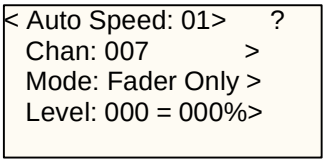


2) If you scroll down again the screen will show 10 channels and you can then adjust any of these 10 channels:



Single Channel

This mode allows the user to select individual channels and raise and lower the intensity as desired.



- Auto Speed *(used to set the speed when using the ramp function. 1 being slowest, 10 being fastest.)*
- Chan *(used to set the channel number to be changed)*
- Mode *(there are several modes allowing you to raise or lower the channel)*
    a. Fader only *(when selected the thumb wheel is used to raise and lower the channel's intensity)*
    b. Fader Fine *(when selected the thumb wheel is used to raise and lower the channel's intensity in a higher resolution - more turns to change percentage)*
    c. Auto On/Off *(will flash the channel between 0 and 100% continuously until stopped)*
    d. Ramping *(will fade the intensity up and down until stopped - note,* Auto Speed *sets the time rate of the ramping until stopped)*
    e. Stop *(selecting Stop will halt Auto On/Off or ramping actions)*

Note: When Auto On/Off or ramping is selected it is possible to change the channel number and the function will be applied to them.

- Level *(shows the DMX512 channel and it current level in percentage)*

TX Data as Cue

This allows the user to play back any cues that have been recorded to the DIMFix Tester. It is possible to store 99 cues.

Run Cues

The sequence will always start with cue 1. It is possible to change the end cue.

```
< Run Cues (Scenes)    ?
  Running cue: 007
       End cue: 99       >
  Speed Rate:  01        >
```

NOTES:

- The Speed Rate ranges from 1 to 10. 1 is the slowest speed and 10 is the fastest.
- Note the cues snap in and out.

RDM Control

Rotate the thumb wheel to select RDM Mode and then press the thumb wheel to select this menu function. There are 2 sub-menu options:

```
< RDM Control
  1. DISC COMMAND   >
  2. GET or
       SET COMMAND  >
```

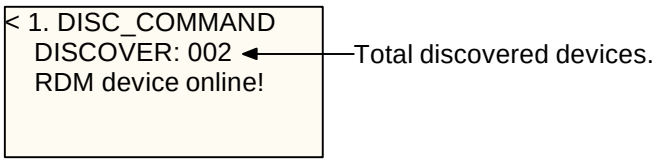
- DISC COMMAND
- GET or SET COMMAND mode. The LCD window usually shows as follows:

Disc Command *(Discover Command)*

Disc Command is used to discover any RDM devices on the network.

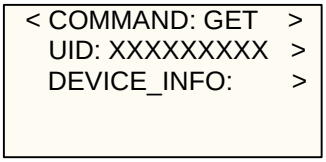
1) Select Disc Command by rotating the thumb wheel.

2) If any RDM devices are discovered the information will be shown on the LCD display as follows:



Get or Set Command

1) Select Get or Set Command by rotating the thumb wheel.
2) If there are RDM devices the following information will be shown on the LCD display:

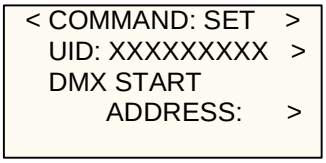


3) Select the UID line by clicking on the >. You can scroll through all the discovered devices and select the one you wish to view.
4) Select the Device_Info line to view all the parameters for the selected device.

Note: There are up to 45 parameters for each device in Command Get. Refer to Table 1, "RDM Categories/ Parameter ID Definitions," on page 16 for further information.

---

5) To change the function to the Command SET function select the > on the first line and using the thumb wheel toggle between GET and SET.



6) Select the UID line by clicking on the >. You can scroll through all the discovered devices and select the one you wish to view.
7) Use the > on the third line to choose and set each of the available parameters for the device.

Note: There are a maximum of 28 parameters. Refer to Table 1, "RDM Categories/Parameter ID Definitions," on page 16 for further information.

NOTES:

- For COMMAND: GET, when the UID (Unique ID) was chosen, the PID (parameter ID) can only be selected in the range which the device supports.
- COMMAND: SET and PID can only be selected in the range which the device supports.
- Manufacturer specific PIDs are displayed in hex format and are excluded from the above 45 or 28 PIDs.
- You can only execute GET DMX_PERSONALITY_DESCRIPTION, GET SENSOR_DEFINITION and GET SENSOR_VALUE if you performed GET DEVICE_INFO first.
- You can GET or SET the relevant PID only if you perform, GET PARAMETER_DESCRIPTION, first. Note, PARAMETER_DESCRIPTION is a description for the relevant manufacturer specific PID.
- You can only execute GET STATUS-ID_MESSAGES only if you perform GET STATUS_MESSAGES, first.

RDM Control Categories / Parameter Tables

Table 1: RDM Categories/Parameter ID Definitions

Get Allowed	Set Allowed	RDM Parameter ID (slot 21 - 22)	Value	Comments	Required
Category: Network Management			***0X00XX***		
		DISC_UNIQUE_BRANCH	0X0001		Yes
		DISC_MUTE	0X0002		Yes
		DISC-UN-MUTE	0X0003		Yes
Yes		PROXIED_DEVICES	0X0010		
Yes		PROXIED_DEVICES_COUNT	0X0011		
Yes	Yes	COMMS_STATUS	0X0015		
Category: Status Collection			***0X00XX***		
Yes		QUEUED_MESSAGES	0X0020	Refer to Table 2 on page 17	
Yes		STATUS_MESSAGES	0X0030	Refer to Table 2 on page 17	
Yes		STATUS_ID_DESCRIPTION	0X0031		
	Yes	CLEAR_STATUS_ID	0X0032		
Yes	Yes	SUB_DEVICE_STATUS_REPORT_THRESHOLD	0X0033	Refer to Table 2 on page 17	
Category: RDM Information			***0X005X***		
Yes		SUPPORTED_PARAMETERS	0X0050	*Support required only if supporting parameters beyond the minimum require set	Yes *
Yes		PARAMETER_DESCRIPTION	0X0051	*Support required for manufacturer-specific PIDs exposed in SUPPORTED_ PARAMETERS message	Yes *
Category: Product Information			***0X00XX***		
Yes		DEVICE_INFO	0X0060		Yes
Yes		PRODUCT_DETAIL_ID_LIST	0X0070		
Yes		DEVICE_MODEL_DESCRIPTION	0X0080		
Yes		MANUFACTURER_LABEL	0X0081		
Yes		DEVICE_LABEL	0X0082		
Yes		FACTORY_DEFAULTS	0X0090		
Yes		LANGUAGE_CAPABILITIES	0X00A0		
Yes	Yes	LANGUAGE	0X00B0		
Yes		SOFTWARE_VERSION_LABEL	0X00C0		Yes
Yes		BOOT_SOFTWARE_VERSION_ID	0X00C1		
Yes		BOOT_SOFTWARE_VERSION_LABEL	0X00C2		
Category: ? ? ?					
Yes	Yes	DMX_PERSONALITY	0X00E0		
Yes		DMX_PERSONALITY_DESCRIPTION	0X00E1		
Yes	Yes	DMX_STAR_ADDRESS	0X00F0	*Support required if device uses a DMX512 slot	Yes *
Yes		SLOT_INFO	0X0120		
Yes		SLOT_DESCRIPTION	0X0121		
Yes	Yes	DEFAULT_SLOT_VALUE	0X0122		
Category: Sensors			***0X02XX***		
Yes		SENSOR_DEFINITION	0X0200		
Yes	Yes	SENSOR_VALUE	0X0201		
	Yes	RECORD_SENSORS	0X0202		
Category: Dimmer Settings			***0X03XX***	***For Future Use***	
Category: Power / Lamp Hours			***0X04XX***		
Yes	Yes	DEVICE_HOURS	0X0400		
Yes	Yes	LAMP_HOURS	0X0401		
Yes	Yes	LAMP_STRIKES	0X0402		
Yes	Yes	LAMP_STATE	0X0403	Refer to Table 4 on page 17	
Yes	Yes	LAMP_ON_MODE	0X0404	Refer to Table 5 on page 18	
Yes	Yes	DEVICE_POWER_CYCLES	0X0405		
Category: Display Settings			***0X05XX***		
Yes	Yes	DISPLAY_INVERT	0X0500		
Yes	Yes	DISPLAY_LEVEL	0X0501		
Category: Configuration			***0X06XX***		

Table 1: RDM Categories/Parameter ID Definitions

Get Allowed	Set Allowed	RDM Parameter ID (slot 21 - 22)	Value	Comments	Required
Yes	Yes	PAN_INVERT	0X0600		
Yes	Yes	TILT_INVERT	0X0601		
Yes	Yes	PAN_TILT_SWAP	0X0602		
Yes	Yes	REAL_TIME_CLOCK	0X0603		
Category: Control			***0X10XX***		
Yes	Yes	IDENTIFY_DEVICE	0X1000		
	Yes	RESET_DEVICE	0X1001		
Yes	Yes	POWER_STATE	0X1010		
Yes	Yes	PERFORM_SELFTEST	0X1020	Refer to Table 7 on page 18	
Yes		SELF_TEST_DESCRIPTION	0X1021	Refer to Table 6 on page 18	
	Yes	CAPTURE_PRESET	0X1030		
Yes	Yes	PRESET_PLAYBACK	0X1031	Refer to Table 3 on page 17	
Category: Reserved by ESTA for Future RDM Development			***0X7EF0 - 0X7FFF***		
Category: Manufacturer Specific PIDs			***0X8000 - 0XFFDF***		
Category: Reserved by ESTA for Future RDM Development			***0XFFE0 - 0XFFFF***		

Table 2: Status Type Definitions

Status Type Definitions	Value	Comments
STATUS_NONE	0X00	Not allowed for use with GET: QUEUED _MESSAGE
STATUS_GET_LAST_MESSAGE	0X01	
STATUS_ADVISORY	0X02	
STATUS_WARNING	0X03	
STATUS_ERROR	0X04	

Table 3: Preset Playback Definitions

Preset Playback Definitions	Value	Comments
PRESET_PLAYBACK_OFF	0X0000	Returns to normal DMX512 input
PRESET_PLAYBACK_ALL	0XFFFF	Plays scenes in sequence (if supported)
PRESET_PLAYBACK_SCENE	0X0001 - 0XFFFE	Plays individual scene number

Table 4: Lamp State Definitions

Lamp State Definitions	Value	Comments
LAMP_OFF	0X00	
LAMP_ON	0X01	
LAMP_STRIKE	0X02	Arc lamp ignite
LAMP_STANDBY	0X03	Arc lamp reduced power mode
LAMP_NOT_PRESENT	0X04	Lamp not installed
LAMP_ERROR	0X7F	
MANUFACTURER_SPECIFIC_STATES	0X80 - 0XDF	

Table 5: Lamp On Mode Definitions

Lamp On Mode Definitions	Value	Comments
LAMP_ON_MODE_OFF	0X00	Lamp stays off until directly instructed to strike
LAMP_ON_MODE_DMX	0X01	Lamps strikes upon receiving a DMX512 signal
LAMP_ON_MODE_ON	0X02	Lamps strikes automatically upon power-up
LAMP_MODE_ON_AFTER_CAL	0X03	Lamps strikes after calibration or homing position
MANUFACTURER_SPECIFIC_STATES	0X80 - 0XDF	

Table 6: Self Test Definitions

Self Test Definitions	Value	Comments
SELF_TEST_OFF	0X00	Turns off self test
MANUFACTURER_TESTS	0X01 - 0X0FE	Various manufacturer self tests
SELF_TEST_ALL	0XFF	Self test all (if applicable)

Table 7: Power State Definitions

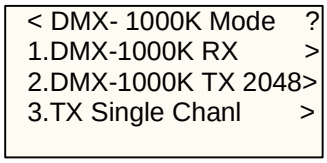
Power State Definitions	Value	Comments
POWER_STATE_FULL_OFF	0X00	Completely disengages power to device (device can no longer respond)
POWER_STATE_SHUTDOWN	0X01	Reduced power mode - may require device reset to return to normal operation (device still responds to messages)
POWER_STATE_STANDBY	0X02	Reduced power mode - device can return to Normal mode without a reset (device still responds to messages)
POWER_STATE_NORMAL	0XFF	Normal operating mode

DMX 1000K Mode

This mode that allows you to transmit or receive up to 2048 channels of DMX if your equipment is able to patch in this way.

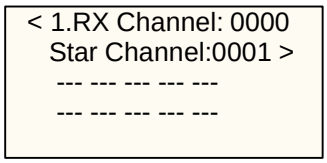
To access DMX 1000K Mode

1) Rotate the thumb wheel to select DMX-1000K.
2) Press the wheel to access the menu function. The LCD display will show three available menu options:



DMX-1000K RX

DMX-1000K RX allows you to receive up to 2048 channels of DMX512. The menu appears as:



Select the start channel by clicking on >.

DMX-1000K TX 2048

DMX-1000K TX 2048 allows you to set and transmit up to 2048 channel levels of DMX512. It functions in the same way as the normal DMX TX function. Select the mode and the screen will show the following:

```
< 2. TX 2048 Channel
  Channel:[0001-0010] >
  000 000 000 000 000
  000 000 000 000 000
```

You can select which 10 channels you wish to view and adjust. You can scroll to any of those ten channels and adjust the levels.

TX Single Channel

This allows you to select a single channel and adjust it.

```
< Auto Speed : 01    >
  Chan: 0003 >
  Mode: Fader Only  >
  Level: 000=000%   >
```

This mode functions in the same way as the Single Channel TX mode DMX DATA-TX.

- Auto Speed *(used to set the speed when using the ramp function. 1 being slowest, 10 being fastest.)*
- Chan *(used to set the channel number to be changed)*
- Mode *(there are several modes allowing you to raise or lower the channel)*
    a. Fader only *(when selected the thumb wheel is used to raise and lower the channel's intensity)*
    b. Fader Fine *(when selected the thumb wheel is used to raise and lower the channel's intensity in a higher resolution - more turns to change percentage)*
    c. Auto On/Off *(will flash the channel between 0 and 100% continuously until stopped)*
    d. Ramping *(will fade the intensity up and down until stopped - note,* Auto Speed *sets the time rate of the ramping until stopped)*
    e. Stop *(selecting Stop will halt Auto On/Off or ramping actions)*

Note: When Auto On/Off or ramping is selected it is possible to change the channel number and the function will be applied to them.

- Level *(shows the DMX512 channel and it current level in percentage)*

Moving Light Mode

Rotate the thumb wheel to select Moving Light mode. To access the mode, press thumb wheel. There are 2 sub-menu options, Library Setting and Play Mode.

```
< 2. Play mode
  FX No.:01 NAME_1 >
  Start address: 001 >
  Func : Pan> 001 >
```

Library Setting

In Library mode, it is possible to create a fixture profile for up to 10 fixtures with each fixture having a maximum of 36 parameters.

Select the Library function by rotating the thumb wheel until Library appear. Select it by pressing the thumb wheel.

```
< 1. Library setting >
 FX No.:01 NAME_1 >
 01 Pan 02 Tilt
 03 Focus 04 Frost
```

1) You can select the fixture and name it. Turn and press the thumb wheel to select the characters for the name.
2) You can select define each channel's function. Turn and press the thumb wheel to select the channel number. You can also scroll through the list of attributes and select the one you want to adjust.
3) Once you have set up the parameters for the fixture you can store them. Click on the > on the first line and select the store option. You will get a message telling you the parameters are stored.

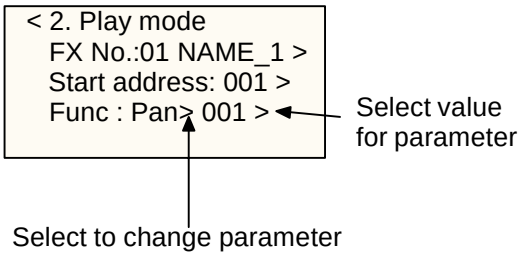
Play Mode

Play mode allows you to use the fixture profiles stored on the DIMFix Tester to test moving fixtures.

Select Play mode by rotating the thumb wheel. Select it by pressing the thumb wheel when the menu option appears. The following will be shown on the LCD display:

```
< 2. Play mode
  FX No.:01 NAME_1 >
  Start address: 001 >
  Func : Pan> 001 >
```

1) Select the fixture type you want to test.
2) Set the DMX start address and then you can go through each individual fixture function and then set the level for that parameter.
3) You can go through each parameter and adjust the parameters to test their functionality.



Save Cue

If there is an incoming DMX512 data stream, it is possible to capture the DMX512 channel levels and store them as scenes. If there is not DMX512 data stream it is possible to use the DMX TX function to set the levels for the channels (you will need to set these levels by going to the DMX TX function). When selecting this mode the LCD display will appear as:

```
< Save Cue ( Scene ) ?
  As Cue No.: 001 >
  Confirm >
```

- Select the cue number that you wish to save and then select Confirm to store it.

- It is also possible to select delete all cues by selecting the > on the second line and then scrolling to this function. If you select it you will be asked to confirm that you wish to delete all cues. You can select Yes (to delete) or No (to cancel).

Cable Test

This function allows you to test if a DMX cable is correctly wired or not.

To test DMX cable wiring / continuity:

1) Connect cable to male and female DMX connectors on DIMFix Tester.
2) Once connected, using the thumb wheel, select Cable Test function. Activate test by pressing thumb wheel.
3) If the cable is correctly wired the screen will display:

```
< Cable Test ---
  Result:
  > Cable Pass
```

4) If the cable is incorrectly wired the screen will show:

```
< Cable Test ---
  Result:
  > Cable Fail
```

Note: For proper DMX cable wiring, refer to "Additional Resources for DMX512" on page 1.

MIDI Data -RX

MIDI Data-RX tests transmitted MIDI signals for any errors.

To run MIDI Data-RX to test MIDI signals:

1) Connect cable DIMFix Tester.
2) Once connected, using the thumb wheel, select MIDI Data-RX function. Activate test by pressing thumb wheel.
3) If the cable is not connected, wired correctly or it a MIDI signal is not present, you will see:

```
< MIDIdata ---RX
  $
```

4) If the MIDI signal is present, you will see a screen similar to:

```
< MIDIdata ---RX
$ FE FE FE FE FE FE
  FE 43 00 45 00 FE
  90 43 00 FE FE FE
```

FE means NULL signal

CLEANING AND CARE INSTRUCTIONS

1. DMXFix Tester Care

WARNING! All cleaning should be performed with power completely removed from the unit. Never attempt to open unit. There are no user-serviceable parts. Under no circumstances should ammonia-based cleaners, acetone, or other harsh solvents be used on or near the DIMFix Tester. These types of cleaners or solvents can permanently damage the unit.

Being a solid-state device, the DIMFix Tester requires very little routine maintenance by the user. See "Warnings and Notices" on page 1 for additional information and warnings.

- Each time, before using, check the condition of all connectors. If any connectors or the unit shows signs of damage, do not use.
- Connect DIMFix Tester to charger when battery power is depleted and the unit is not in use.
- To prolong life of the rechargeable batteries, after unit is fully charged, disconnect from the charger. Also, it is a good practice to allow batteries to fully discharge between charges.

WARNING! Only use the AC to DC power supply provided with the DIMFix Tester to recharge the batteries. If the unit becomes damaged or inoperable, contact Strand Lighting or your Authorized Strand Lighting dealer to purchase a replacement unit. Use of another power supply or source to recharge the batteries or operate the unit will void the warranty, damage the unit or could cause the batteries to short-circuit and explode resulting in personal injury.

- Should the unit become dirty, unplug from power supply and clean unit using a lint-free cleaning cloth.

If you have any questions regarding the use or care of your DIMFix Tester, please contact Philips Strand Lighting technical support or your local Authorized Dealer.

WARNING! This unit contains rechargeable batteries and should be properly disposed of according to applicable local and federal disposal regulations.

TECHNICAL SPECIFICATIONS

1. DIMFix Tester Specifications

Operating Voltage:	9VDC (Rechargeable battery - AC to DC recharging power supply provided with unit)
Current:	500 mA
Frequency:	50/60Hz
Signal Generation:	DMX512 (1990) / RDM / MIDI
Data Connections:	1 - Input / 1 - Output (5-Pin Connectors)
Ambient Temperature:	0 to 35 degrees C (32 to 95 degrees F)
Humidity:	0%-95% Non condensing
Weight:	1.0 kg (2.2 lbs)
Compliance:	DMXFix Tester: CE Marked / AC to DC Power Supply: cUL listed

Note: For complete model specifications, features, etc., refer to the product specification sheet or visit the Philips Strand Lighting web site at www.strandlighting.com for more details.

CE

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