CX-1C

DMX Tester

【User Manual】

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Chapter 1 Introduction

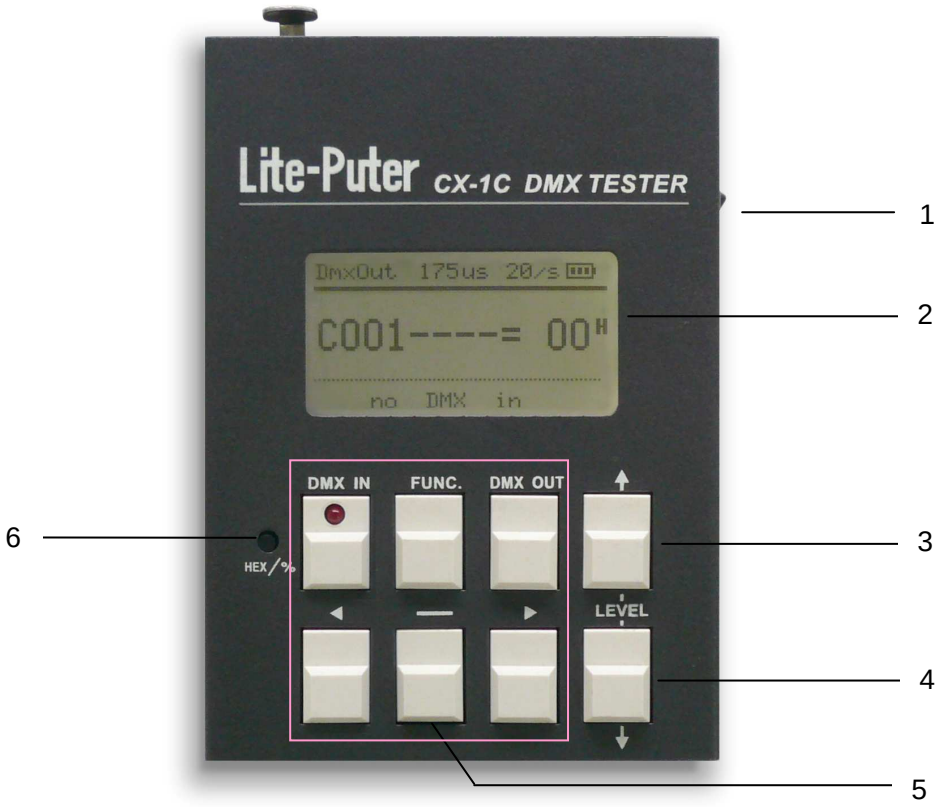
1-1 CX-1C Feature

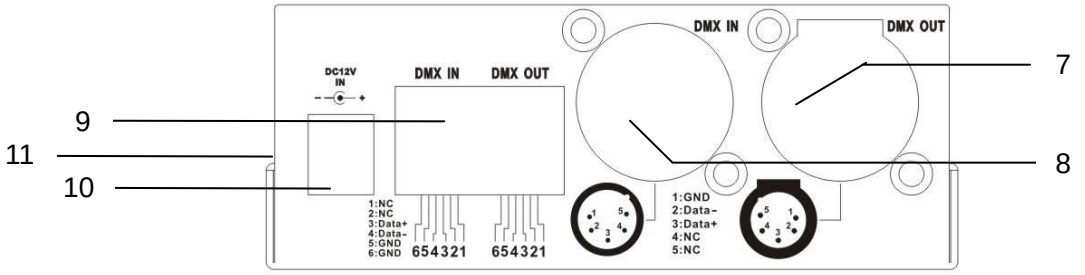
- Power supply is DC 12V.
- Synchronic DMX signal output for testing (DMX IN and DMX OUT).
- Rechargeable lithium battery. Battery charge time: 2 hours
  Continuous operating time: 6 hours
- LCD backlight power saving mode.
- Cable test function can check the rightness of cable connection and tell where the mistake is.
- Protocol development function to shorten the development period.

1-2 Specification

- Power supply：DC 12V/1A
- DMX Input/Output：DMX512
- DMX Output Channel：512 channels
- DMX Signal Connector：XLR 5PIN (×2)、PHONE JACK RJ11 (×2)
- Dimension：97(W)*135(H)*38(D)mm
- Weight：750g

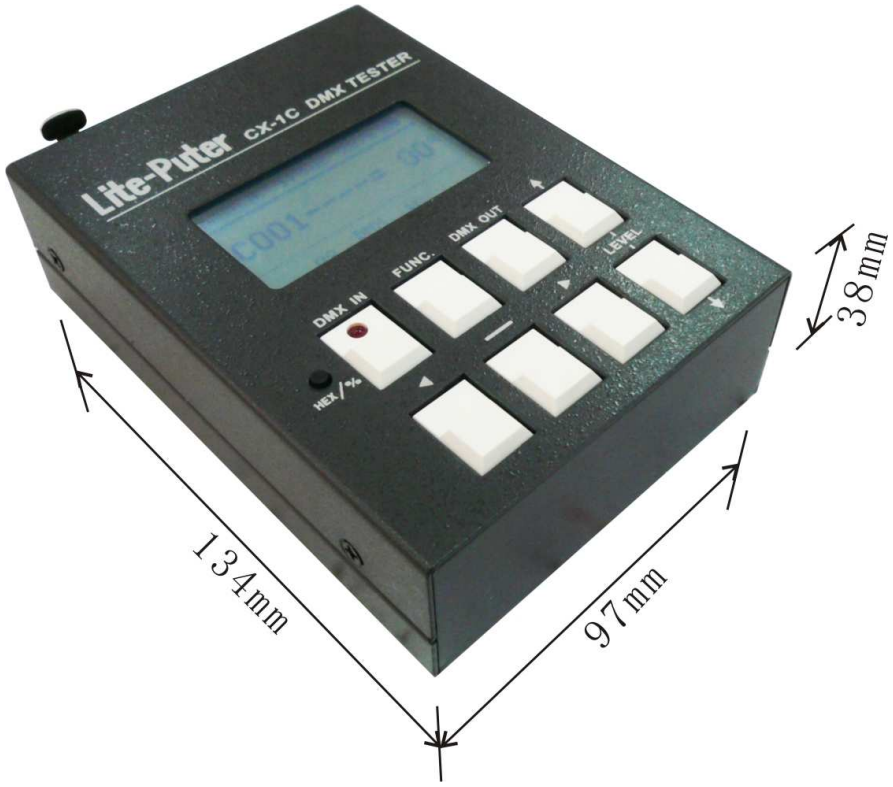
1-3 Panel Introduction





1	Power Switch	6	Hex/ Decimal/ Percent Button
2	LCD Display	7	DMX Signal Output: XLR 5 PIN
3	LEVEL 【▲】 Key	8	DMX Signal Input: XLR 5 PIN
4	LEVEL【▼】 Key	9	DMX Signal Input/ Output
5	Function Keys	10	Power Supply Input: DC12V 1A
11	Synchronal signal(Side of the CX-1C)		

1-4 Dimension



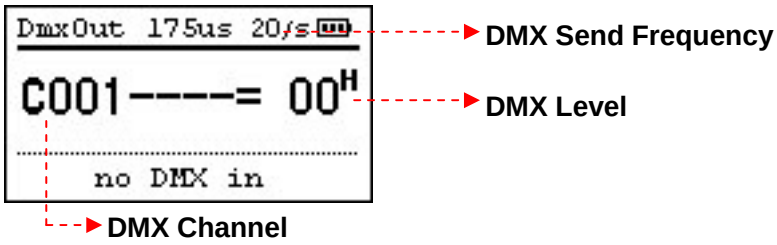
Size：97*134*38mm（W*H*D）

Chapter 2 Operation

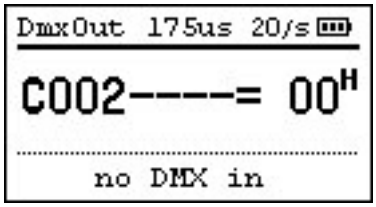
2-1 DMX OUT

1. Set single channel or continuous channels at the same DMX level.

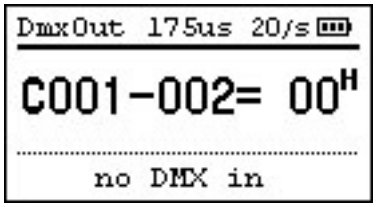
STEP-1 Press【DMX OUT】to enter DMX OUT function, the LCD displays,



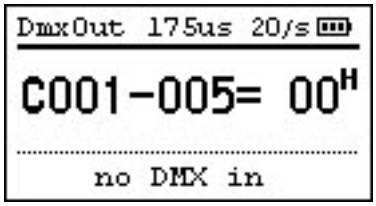
STEP-2 Press 【►】or【◄】to select channel. If you want to select C002, press【►】and LCD displays,



STEP-3 To set the continuous channels at the same level, you can select a channel as the start channel and the use the【-】key.
For example, to set channel 1 to 5 and channel 1 is the start channel.
Press 【-】and the LCD displays,

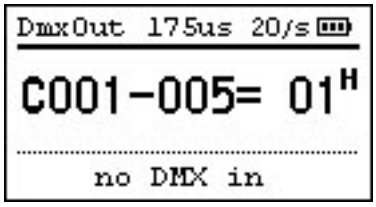


Press 【►】until LCD displays,



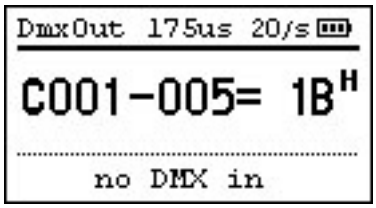
Press【►】or【◄】once to increase or decrease one DMX channel address.
You can also hold【►】or【◄】 to increase or decrease DMX channel address quickly.

STEP-4 Press【▲】or【▼】to adjust the DMX level.



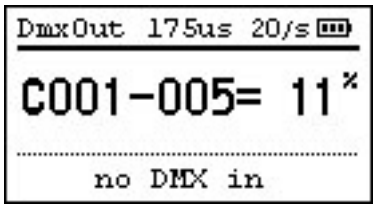
(【▲】--increase ; 【▼】--decrease)

Press【▲】or【▼】once to increase or decrease one DMX level ; hold【▲】or【▼】 key to increase or decrease the DMX level quickly.
C001 to C005‘s level are 1BH now and LCD displays,

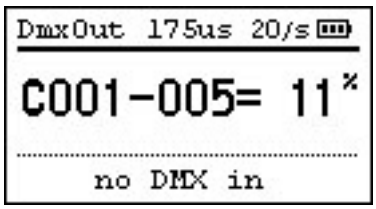


Hold【▲】and【▼】at the same time to set their DMX level at 50% , 100% and 0% quickly.

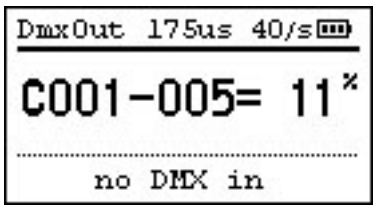
STEP-5 LCD readout the DMX level in 3 modes: Hex, Decimal or Percent. Press 【HEX/%】 button to shift between them. As the above graph, 1BH at % is displays as below,



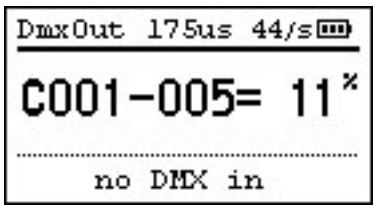
STEP-6 Three DMX send frequencies are available when generating DMX from the tester.



DMX send frenquency 20/S



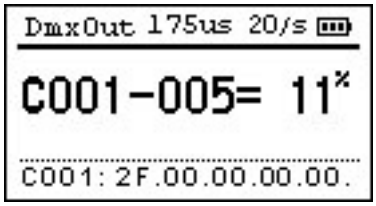
DMX send frenquency 40/S



DMX send frenquency 44/S

20/s DMX Send Frequency: 20 times per second. (20/s)
40/s DMX Send Frequency: 40 times per second. (40/s),
Can be used to test devices at a faster rate.
44/s DMX Send Frequency: 44 times per second. (44/s),
Can be used to test devices at a faster rate .
(For more information, please refer to 2-9 DOut protocol.)

STEP-7 When DMX OUT mode, if there is a DMX signal input from DMX IN port , LCD will display:

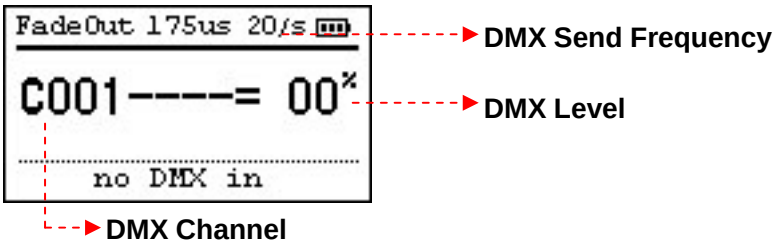


Above means the first channel receive the DMX IN signal is 2FH and channel 2-5 is 00H.
This function can be used to test the cable.
Plug the male and female ends of the data cable into the DMX OUT and DMX IN ports individually, if the data was received is the same with the data was sent, it means the cable is in good condition.
LCD readout for DMX IN is in Hex which is irrelevant with DMX Out's readout on LCD.

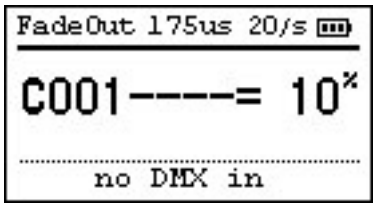
2-2 Auto Fade

1. Set single channel or continuous channels automatically fade.

STEP-1 In DMX OUT mode，press【DMX OUT】to enter Auto Fade function and the LCD displays,

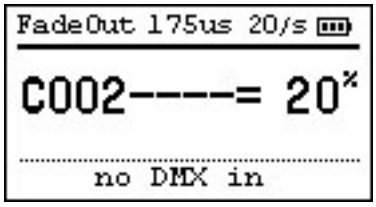


STEP-2 You can find that the current channel (CH001)'s DMX level automatically ramping from 0% to 100% and goes back. (0% → FL→0%.....)

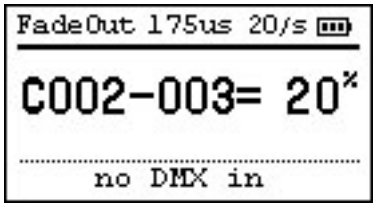


STEP-3 Press【▲】or【▼】 to set Auto Fade speed. 【▲】is increse the speed and 【▼】is decrease the speed.

STEP-4 Press【►】or【◄】 to select Auto Fade channel. If press【►】and LCD displays,



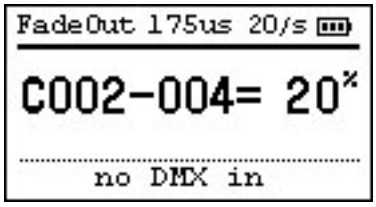
STEP-5 To set continuous channels' Auto Fade, you can select a channel as the start channel and the use the【-】key.
Press【-】and the LCD will display:



The operation for Auto Fade will be：**C002**：0%→100%→0%→ **C003**：0%→100%→0%→ **C002**：0%→100% →0%.

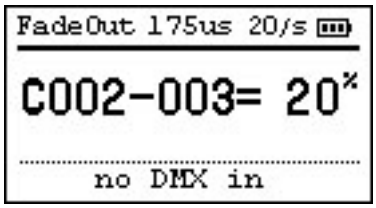
STEP-6 Press 【►】or【◄】to select Auto Fade end channel.

If press【►】key, the LCD displays as below,



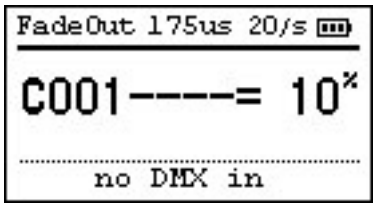
Press【►】or【◄】once to increase or decrease one DMX channel address.
You can also hold【►】or【◄】 to increase or decrease DMX channel address quickly.

STEP-7 Press【◄ to decrease the Auto Fade end channel. The LCD will display as below:

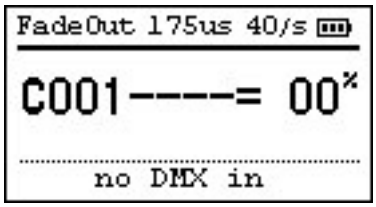


2. Set Auto Fade Send Frequency

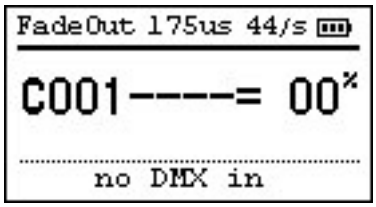
※ Three AutoFade send frenquency are available: 20/s,40/s and 44/s.



DMX send frenquency:20/s



DMX send frenquency:40/s

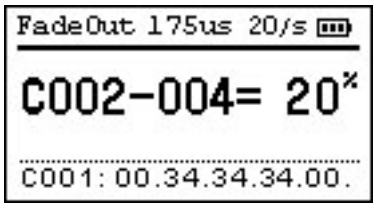


DMX send frenquency:44/s

(For more information, please refer to 2-9 DOut protocol.)

3.DMX IN in AUTO FADE Mode

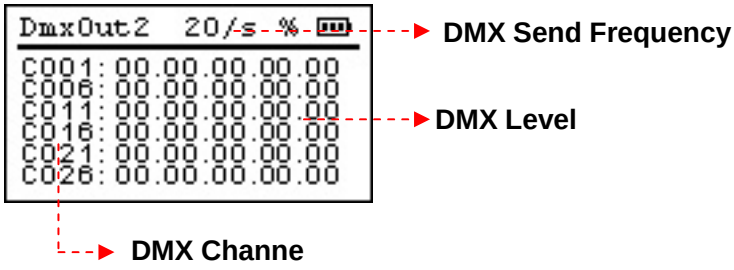
STEP-1 In AUTO FADE mode, if there is a DMX signal inputs, LCD displays,



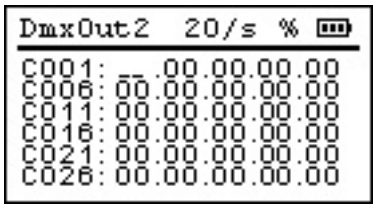
Above means channel 2 to 4 for DMX IN are 34H (20%)
LCD readout for DMX IN is in Hex. It is irrelevant with Fade Out's readout on LCD

2-3 DMX OUT2

STEP-1 In Auto Fade mode, press 【DMX OUT】DMX OUT2 function and LCD displays,



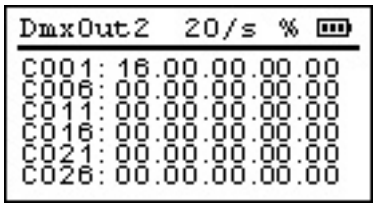
STEP-2 Press【▲】or【▼】to adjust channel's DMX level and LCD displays ,



(【▲】--increase ; 【▼】--decrease)

Press【▲】or【▼】once to increase or decrease one DMX level ; hold【▲】or【▼】 to increase or decrease the DMX level quickly.

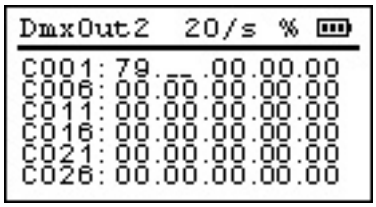
When C001's DMX level is16% and LCD displays,



Hold【▲】and【▼】at the same time to set its DMX level at 50% , 100% and 0% quickly.

STEP-3 Press 【►】or【◄】to select other channels, if you want to select C002 press 【►】

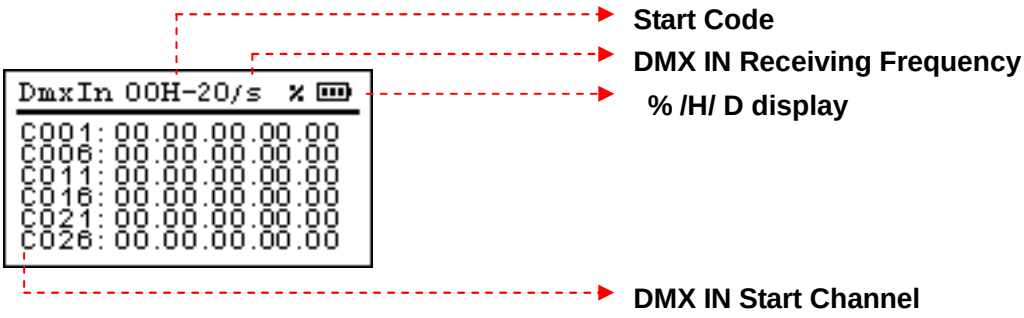
Key and LCD displays,



Press【►】or【◄】once to increase or decrease one DMX channel address ; hold【►】or【◄】 to increase or decrease the DMX channel address quickly.

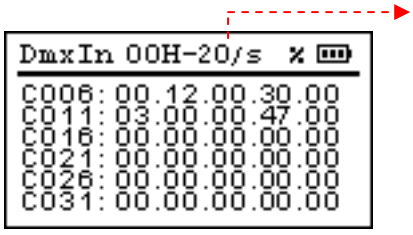
2-4 DMX IN

STEP-1 Press【DMX IN】to enter DMX IN function and the LCD displays:



Start Code: DMX IN start code level received
DMX IN Receiving Frequency： It shows how many times DMX IN signal are received. When DMX IN signal's receiving times is over than 99 times, it will be switched to Frequency. (How many times it's received in per second.)
%/H/D： Percent/ Hexadecimal or Decimal.
C001： DMX IN start channel.
(When receiving DMX IN data, the LED on 【DMX IN】button will be lighted.

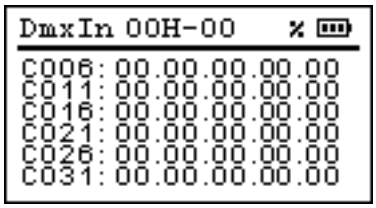
STEP-2 Press【►】or【◄】;【▲】or【▼】keys to select start channel.
Press【▼】and the LCD displays,



20/s means the DMX IN receiving frequency is 20 times/ per second.

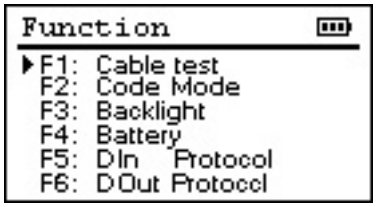
Clearing DMX IN levels

In DMX IN mode, if you want to clear DMX IN level, first remove the DMX IN XLR then press 【DMX IN】and the LCD displays,

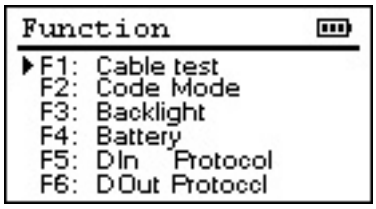


2-5 Cable Test Mode

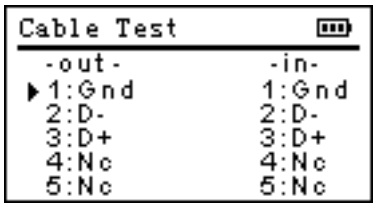
STEP-1 Press【FUNC】to enter Menu and the LCD displays:



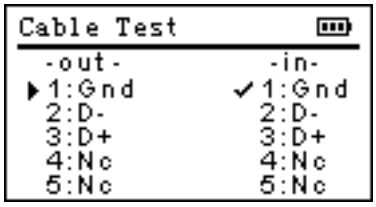
STEP-2 Press 【▲】or【▼】to select F1: Cable Test.



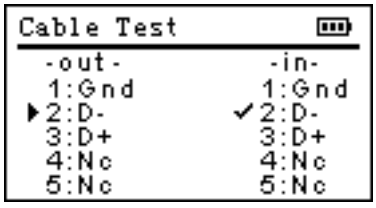
STEP-3 Press【FUNC】again to enter cable test mode and the LCD displays:



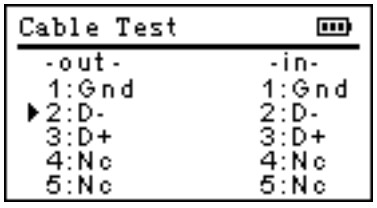
STEP-4 Plug the male and female ends of the data cable (need to test) into the DMX OUT and DMX IN ports individually, the LCD displays:



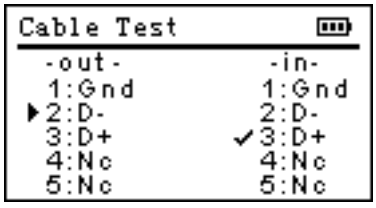
STEP-5 Press【▼】to test next cable and the LCD displays:



the cable (D-) is connected.

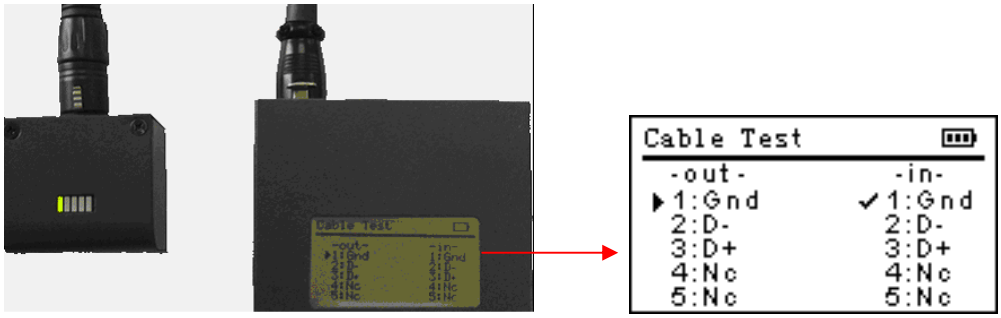


the cable (D-) is disconnected.



the signal cable is abnormal.

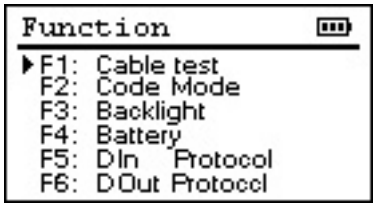
STEP-6 If the male and female ends of the data cable can not plug into the DMX OUT and DMX IN ports, you can use a test module, please find as below:
(Plug the male end of the data cable into the DMX OUT ports and plug the female end of The data cable into the test module.)



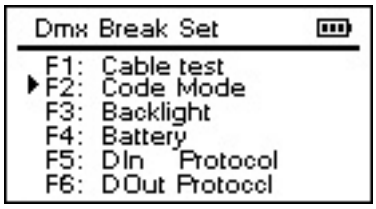
STEP-7 Connecting with a test module and choose “1:GND”, if the first LED is lighted (as above picture), it means the connection is correct. You can use the same way to test D+ and D-.

2-6 Code Mode

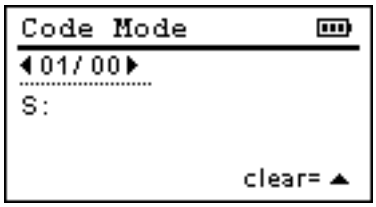
STEP-1 Press【FUNC】to enter Menu and the LCD displays:



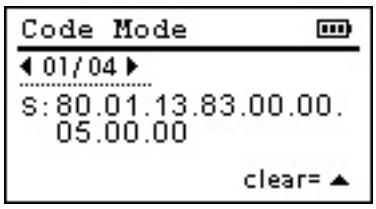
STEP-2 Press【▲】or【▼】to select F2: Code Mode.



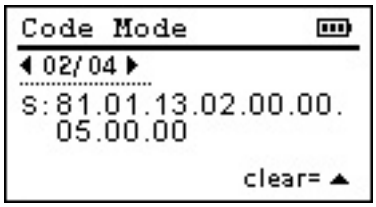
STEP-3 Press【FUNC】again to enter and the LCD will display:



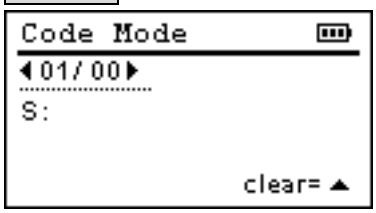
STEP-4 If connect a EDX-610 with CX-1C and press scene【1】key, EDX-610 will send two codes. Press scene【OFF】key and CX-1C LCD displays:



STEP-5 Press【►】or【◄】to choose a code.

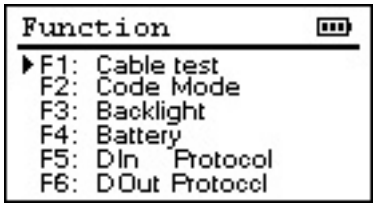


STEP-6 Press【▲】to clear and the LCD displays,

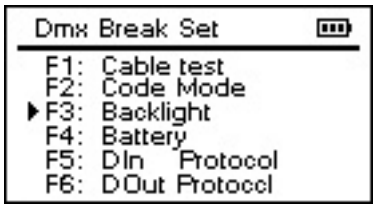


2-7 LCD Backlight

STEP -1 Press【FUNC】to enter Menu and the LCD displays,



STEP-2 Press【▲】or【▼】to select F3: Backlight.

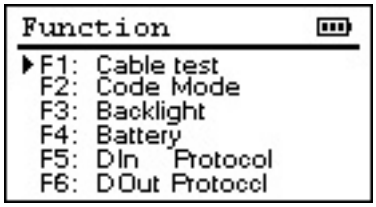


STEP-3 Press【FUNC】again to enter and the LCD displays,

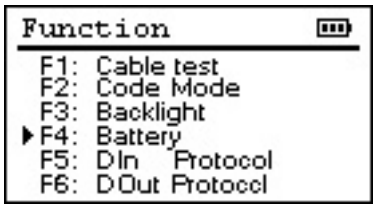
1 minute: If stop operating, backlight will automatically turn off after 1 minute.
20 minute: If stop operating, backlight will automatically turn off after 20 minutes.
Always on: Backlight always ON
Always off: Backlight always OFF
STEP-4Press【▲】or【▼】to select one from above four mode. If select “Always off ”and LCD displays ,

2-8 Battery Display

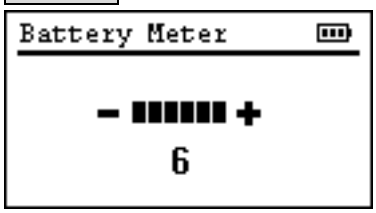
STEP-1 Press【FUNC】to enter Menu and the LCD displays,



STEP-2 Press【▲】or【▼】to select F4: Battery.

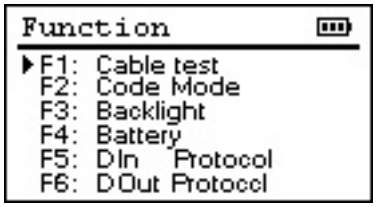


STEP-3 Press【FUNC】again and the LCD displays:

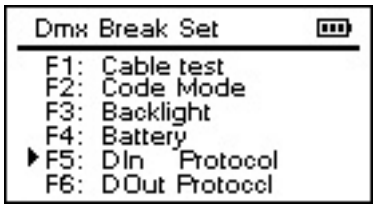


2-9 Din Protocol

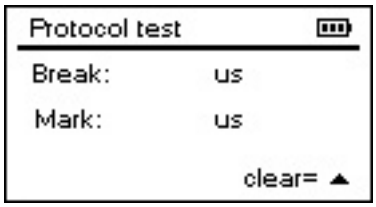
STEP-1 Press【FUNC】to enter Menu and the LCD displays:



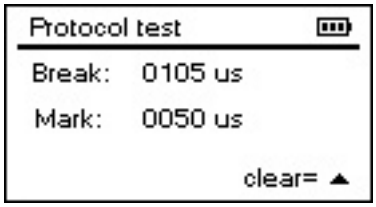
STEP-2 Press【▲】or【▼】to select F5: DIN Protocol.



STEP-3 Press【FUNC】again and the LCD displays:

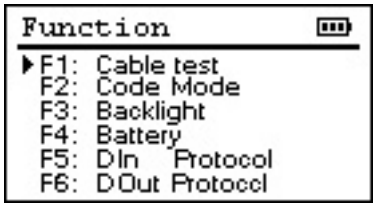


STEP-4 When extending a DMX IN signal and the LCD displays:

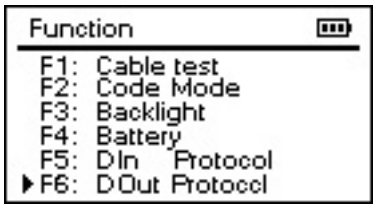


2-10 D Out protocol

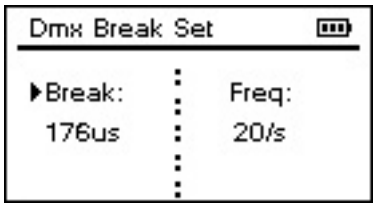
STEP-1 Press【FUNC】to enter Menu and the LCD displays,



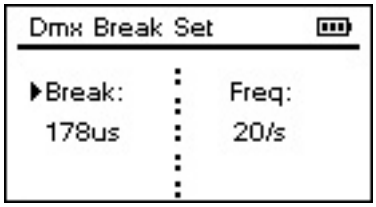
STEP-2 Press【▲】or【▼】to select F6: D Out Protocol.



STEP-3 Press【FUNC】again and the LCD displays:

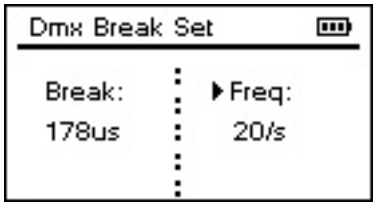


STEP-4 Press【▲】or【▼】to adjust Break time and the LCD displays,

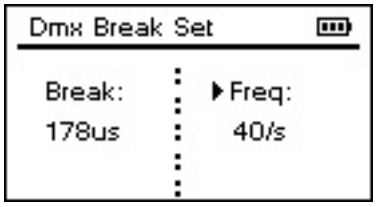


Press【▲】to increase Break time, up to 300US,Press【▼】to decrease Break time down to 60US.

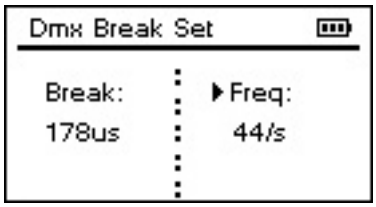
STEP-5 Press【►】or【◄】and the LCD displays,



STEP-6 Press【▲】or【▼】 to adjust DMX send frequency :20/s, 40/s and 44/s.

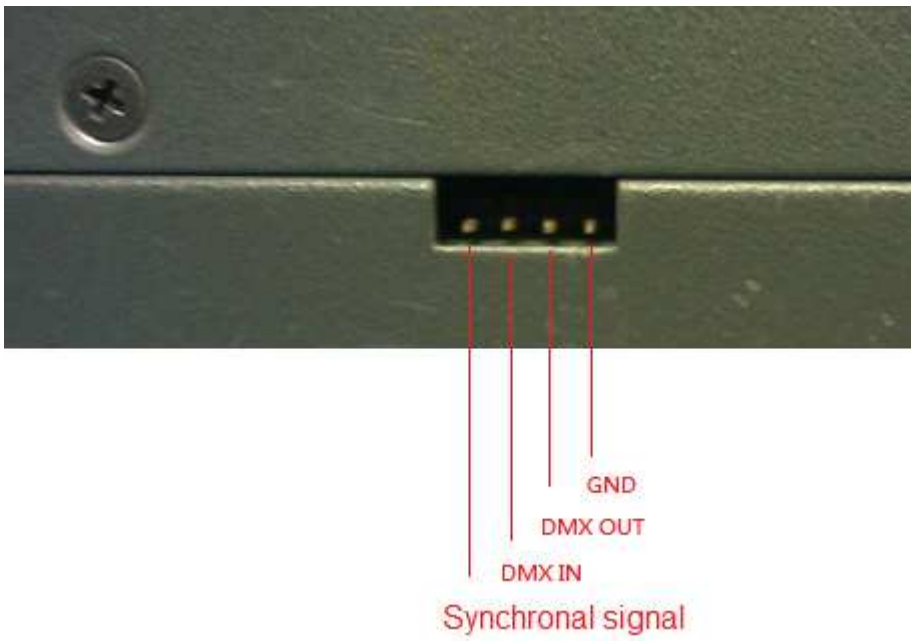


DMX Send Frequencies: 40s



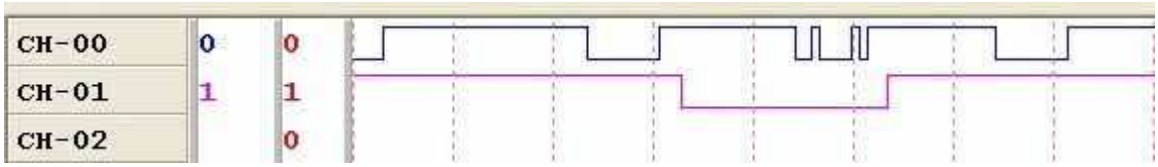
DMX Send Frequencies: 44s

2-11 Synchronal Signal Output

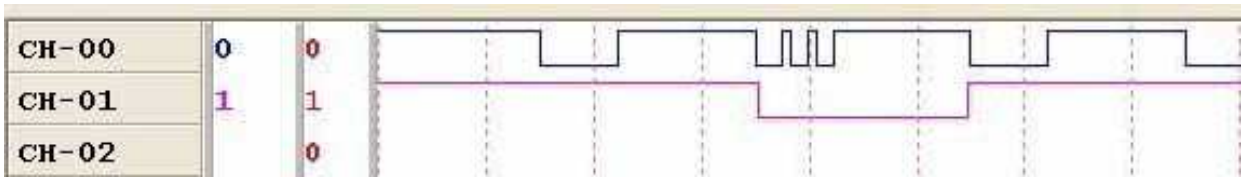


STEP-1 For further analysis of the DMX signal, the tester can be connected to a scope.

STEP-2 If CX-1C received a CH001 = 42H DMX IN signal, you can measure from SYNC of TO SCOPE to RX ground, the wave as below,
CH-00 in circle is the DMX wave of RX ground.
CH-01 in circle is the synchronal signal wave of SYNC.



STEP-3 If CX-1C sent a CH001 = 42H DMX IN signal, you can measure from SYNC of TO SCOPE to TX ground, the wave as below:
CH-00 in circle is the DMX wave of TX ground.
CH-01 in circle is the synchronal signal wave of SYNC.



Guarantee

Lite-Puter promises to fulfill the following acceptances:

1. Lite-Puter is only responsible for CX-1C itself.

2. Lite-Puter guarantees to keep Lite-Puter's fault products caused by techniques, materials and any other logical reasons in good repair for free within a year since the distributing date.

3. We do not offer door-visiting service. If the trouble appears in Lite-Puter's products, please deliver the equipment to local distributors or Taipei headquarter.

*** Special Statement***

Any fault caused by false usage, imprudence (collision or inadequate installation) or force majeure factors are not in Lite-Puter's service.

Revision Record

Version	Record
A	First version
B	ADD 2-3 DMX OUT 2 Function
C	ADD Synchronal signal at 2-11

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Lite-Puter

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