FEATURES OF LED FLEX RIBBON NEON LIGHT

1. Model: C-FR-F15B-DC24V-60
2. Rated input voltage: DC 24V
3. Rated Power:12W/m
4. Dimension: 11.5*21mm
5. LED quantity: 60LEDs/mtr,
6. LED Spacing:16.67mm
7. Min. cutting length:10cm(6LEDs)
8. Max. running length: 20mtrs
9. Light color: Single Color
   (Red/Green/Blue/Yellow/Warm White/Cool White/Daylight White)
10. Min. bent diameter: 12cm
    Do not twist the LED Neon Flex Ribbon Light .
11.Protection rate: IP68/IP65/IP40
12.Protection rate for IP68: Protected against dust and submersion in
water (1meter above).
    NOTE: All connector joints must be connected correctly to achieve
IP68 rating.
13.Can be cut and extended
14.Long lifetime: 5 years
15.Performance applicable ambient temperature: -10℃~45℃
16.Certificate compliance: CE,ROHS,FCC,IC,C-Tick

ACCESSORIES(SALE SEPARATELY)

IP68 Accessories Kit

F15B Both Ends Connection Application Accessories Kit

01 Front Connector	1 pc
02 Front Connector	1 pc
Rubber Gasket	2 pcs
Aluminum Mounting Piece	2 pcs
Anti-skidding clip	2 pcs
Screws	8 pcs

F15B Single End Connection Application Accessories Kit

Front Connector Accessories Kit

01 (or 02) Front Connector	1 pc
Rubber Gasket	1 pc
Aluminum Mounting Piece	1 pc
Anti-skidding Clip	1 pc
Screws	4 pcs

End Cap Accessories Kit

The Tail Plug	1pc
Aluminum Mounting Piece	1pc
Anti-skidding Clip	1pc
Rubber Gasket	1pc
Screws	4pcs

IP65 Accessories Kit

F15B Both Ends Connection Application Accessories Kit

01 Front Connector	1 pc
02 Front Connector	1 pc
Cover	2 pcs
Anti-skidding clip	4 pcs
HST	2 pcs

F15B Both Ends Connection Auxiliary Accessories Kit

Glue	1 pc

F15B Single End Connection Application Accessories Kit

Front Connector Accessories Kit

01 (or 02) Front Connector	1 pc
Cover	1 pc
Anti-skidding clip	2 pcs
HST	1 pc

Remark: HST--Heat Shrink Tube

End Cap Accessories Kit

End Cap	1pc
Shading Sheat	1pc
HST	1pc

F15B Single End Connection Auxiliary Accessories Kit

Glue	1 pc

IP40 Accessories Kit

F15B Both Ends Connection Application Accessories Kit

01 Front Connector	1 pc
02 Front Connector	1 pc
Cover	2 pcs
Anti-skidding clip	4 pcs
HST	2 pcs

F15B Single End Connection Application Accessories Kit

Front Connector Accessories Kit

01 (or 02) Front Connector	1 pc
Cover	1 pc
Anti-skidding clip	2 pcs
HST	1 pc

Remark: HST--Heat Shrink Tube

End Cap Accessories Kit

End Cap	1pc
Shading Sheat	1pc
HST	1pc

WARNING AND CAUTION

WARNING

1. Before making any cuts, installation, maintenance or connection, be sure
   the mains is disconnected!
2. NOTE: ALL CONNECTOR JOINTS MUST BE CONNECTED CORRECTLY TO
   ACHIEVE IP68/IP65/IP40 RATING.
3. Please operate this flex light by instructions, and confirm the work voltage,
   it must be matched with product requirements
4. Please confirm the polarity of connector before insertion front connection cable.
5. Connect and cut this product correctly. Any wrong operation will damage this
   product.
6. No pressing on this product during storage, long term pressing may lead to
   damage.
7. Using qualified DC power supply.
8. Min. bent diameter 12cm, see Fig. 1.
9. Do not twist the LED Neon Ribbon Light as Fig. 2 and Fig. 3.
10. Do not hang this flex light in sky as Fig.4.
11. Cutting at wrong location will result in a failure of light! See Fig. 5.

CAUTION

1. Suitable for mounting on normally flammable surfaces..
2. Use only factory-recommended connectors and accessories.
3. To ensure its long life span, operate the light properly in accordance with the
   instructions.
4. Do not operate in more than 45℃ ambient temperature.
5. Assemble the Connector correctly as Fig. 6.
6. Max. running length depends on the energizing way as Fig. 7 shown.
7. Warm White, Cool White and Daylight color reference ANSI STANDARD.
8. Do not operate light when ambient temperature is below 5℃ that may injury
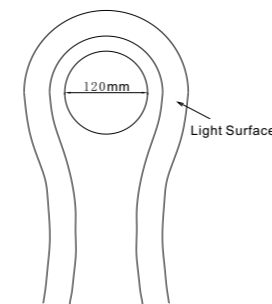   the light .

ASSEMBLY AND INSTALLATION

1. Turn off the electricity before operation.
2. Cutting the light at correct location（if need）.
3. Assemble light according to Fig. 8, Fig. 9 or Fig. 10 or Fig. 11.
4. Install U channel and light according to Fig. 12.
5. Wiring all connectors to the power line and checking whole circuit wiring.
   Cable color coding basics Refer to Fig. 13.

FIGURES

Fig. 1 Minimum bent diameter 120mm

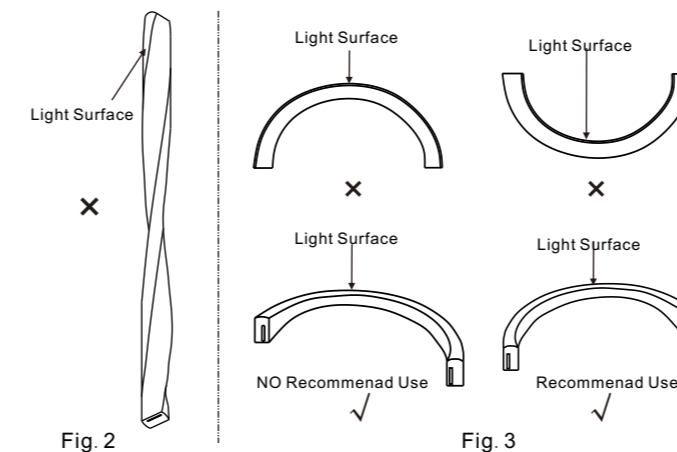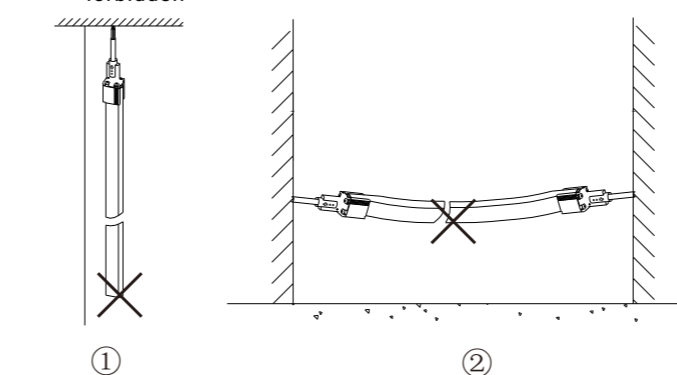Twist the light is forbidden and correct bending way

Fig. 2   Fig. 3

Fig. 4 Hang suspended installation as the picture illustrated is
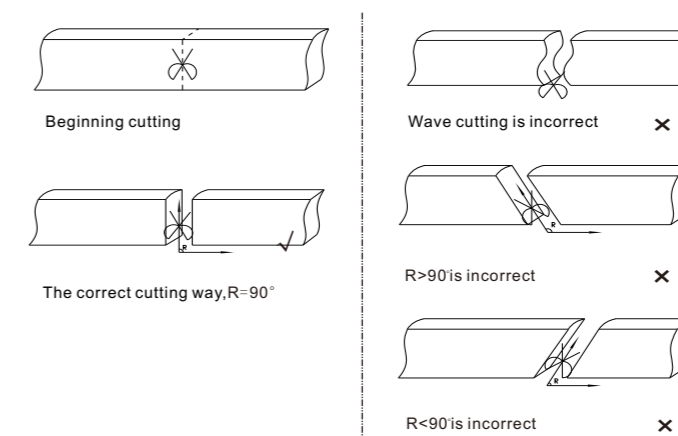forbidden

Fig. 5 Unit cutting guide

Beginning cutting   Wave cutting is incorrect

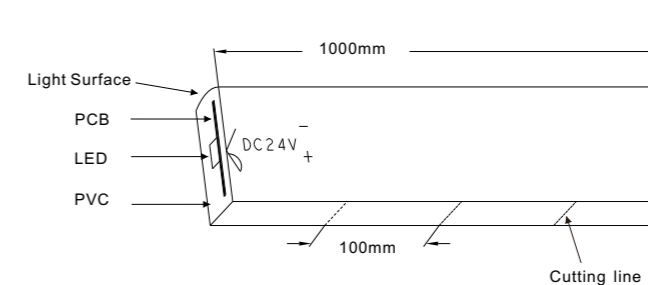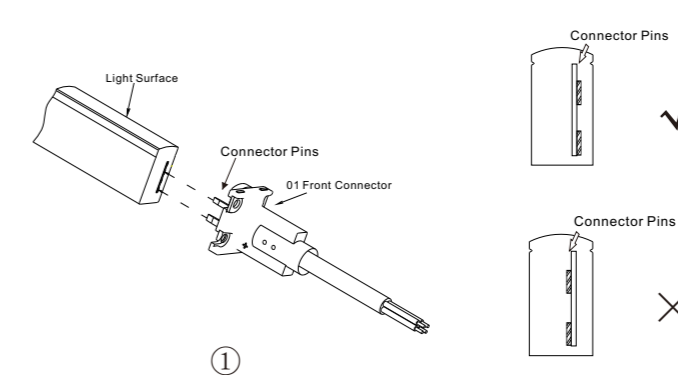The correct cutting way,R=90°   R>90 is incorrect

R<90 is incorrect

Fig. 6 Correct insert position of connector pins

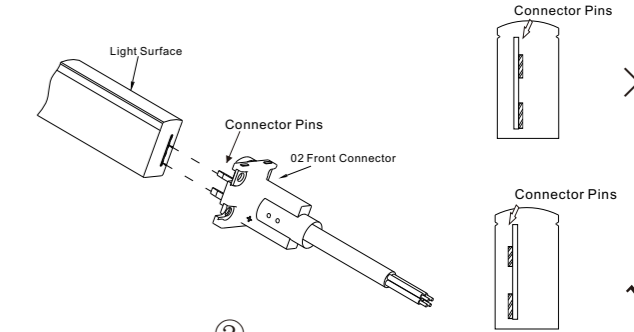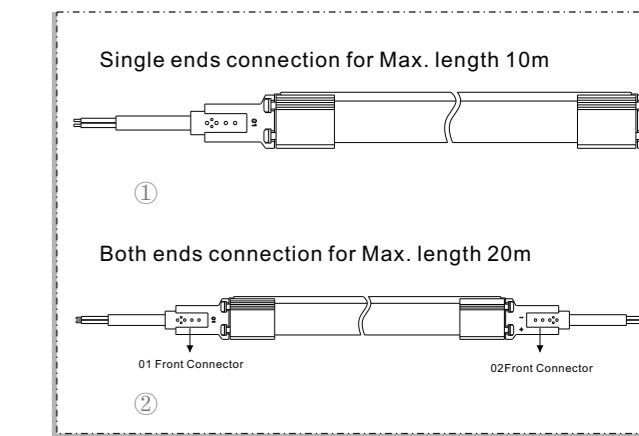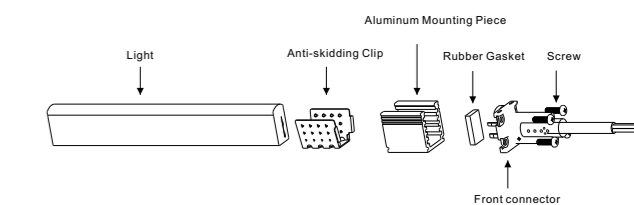Fig. 7 Energizing Way

Single ends connection for Max. length 10m

Both ends connection for Max. length 20m

01 Front Connector   02Front Connector

Fig. 8 IP68 Front Connector Assemble

Diagram

Light   Anti-skidding Clip   Rubber Gasket   Screw

Aluminum Mounting Piece

Front connector

Step

1 Anti-skidding Clip

2 Aluminum Mounting Piece

3

4

5 Rubber gasket

Front connector

6 Screw

7

8

Fig. 9 IP68 End Cap Assemble

Diagram

Screw
The tail plug
Rubber Gasket
Aluminum Mounting Piece
Anti-skidding Clip
Light Surface

Step

1 Anti-skidding Clip

2 Aluminum Mounting Piece

The tail plug

3 Screw

4

5 Rubber Gasket

6

7

8

Fig. 10 IP65 Accessories Assemble

Diagram

Front Connector
Anti-skidding Clip
Cover
Light Surface
End Cap

Step

1 Cover
Front Connector

2

3

Anti-skidding Clip

4

5

6

7 End Cap
Glue

8

9 HST   HST

10 HOT   HOT
10mm HST 7.5mm

11

Fig. 11 IP40 Accessories Assemble

Diagram

Front Connector
Anti-skidding Clip
Cover
Light Surface
End Cap

Step

1 Cover

2 Front Connector

3

End Cap

4

5

6

7

8

Fig. 12 Installation Guide

NO.1 Aluminum U-channel

NO.2 Aluminum U-channel

NO.1 Aluminum U-channel Installation Guide

Fixing Aluminum U-channel by screw

Install the light into the aluminum U-channel
light Surface
Aluminium U-channel
Aluminium U-channel
Screw   Installation Surface
Screw   Installation Surface

Fixing Aluminum U-channel by screw

Install the light into the aluminum U-channel

light Surface
Aluminium U-channel
Aluminium U-channel
Screw   Installation Surface
Screw   Installation Surface

NO.2 Aluminum U-channel Installation Guide

Fig. 13 Cable color coding basics

VDE 2-wires cable
Brown wire connect to the anode
Black wire connect to the cathode

Brown wire
Blue wire
Inner wire size: 2*0.75mm
Cable diameter: Φ6.5mm

UL 2-wires cable
Red wire connect to the anode
Black wire connect to the cathode

Red wire
Black wire
Inner wire size: 2*0.75mm
Cable diameter: Φ6.5mm

Remark:

1. Six of the nominal CCTs correspond to those in the fluorescent lamp specification [2]:2700K,3000K(Warm White),3500K(White),4100K(Cool White),5000K and 6500K(Daylight),respectively.
2. T is chosen to be at 100k steps (2800,2900,···,6400K), excluding, hose eight nominal CCTs listed in Table 1.
3. ΔT is given by $\Delta T = 0.0000108 \times T^2 + 0.0262 \times T + 8$.
4. Duv is given by $Duv = 57700 \times (1/T)2 - 44.6 \times (1/T) + 0.0085$

GUARANTEE

1. The product can keep use over 5 years under an application environment temperature -10℃~45℃ and worked based on typical 8hrs/day operation.
2. This product is guaranteed for a period of 2 years. The "Warranty Period" will begin at the date of original product purchase from either Clear, or an authorized Clear Distributor/Dealer.
3. Clear will repair or replace product covered under this warranty with components of Clear's election or discretion. Advances technology for the products will be selected firstly for replacement.
4. Warranty is only to apply for products that are properly installed. This includes proper assembly, wiring and connection to proper approved components and product working environments.
5. This Warranty is void and does not apply to products that fail as a result of neglect, mistake, misuse, alteration, or that is improperly assembly, installation and implemented. This includes but is not limited to: improper assembly, improper wiring, installation under improper and non-approved operation environments such as temperature or voltage conditions; improper installation using components that are not approved or are not manufacture products, improper installation not in according with any labels or instructions.

USER MANUAL

LED NEON RIBBON LIGHT

F15B

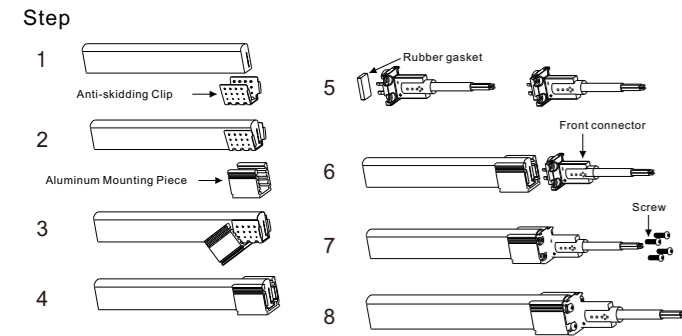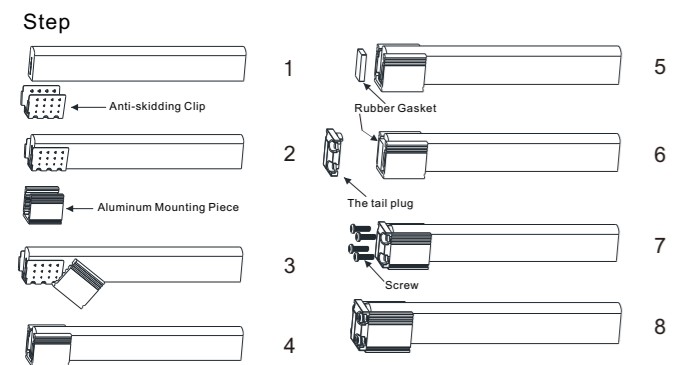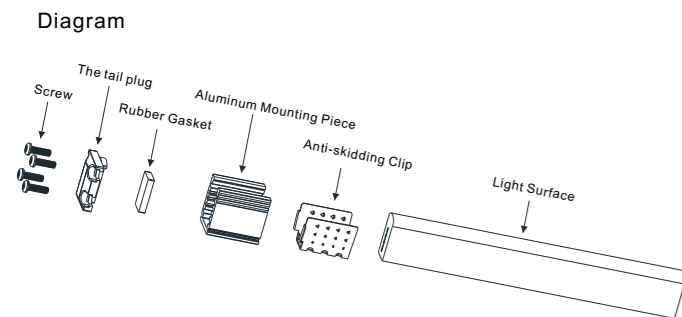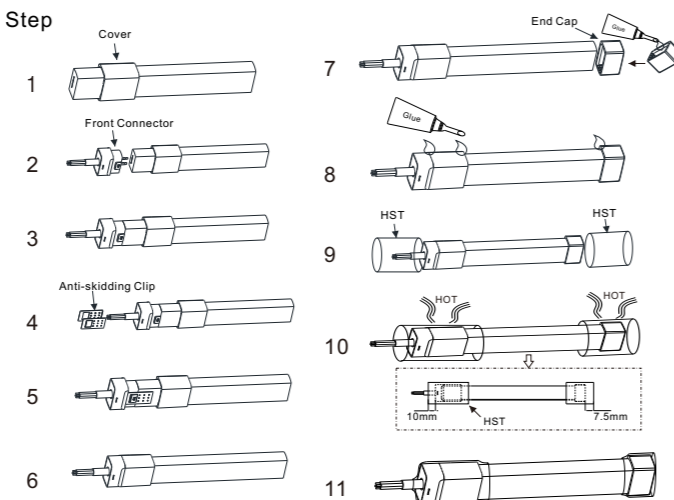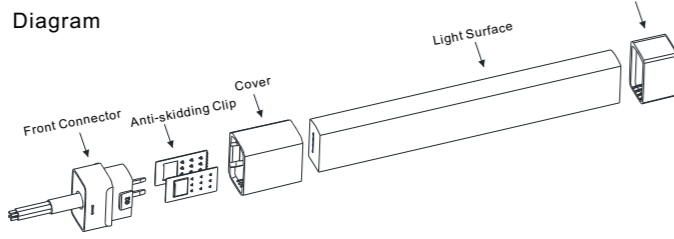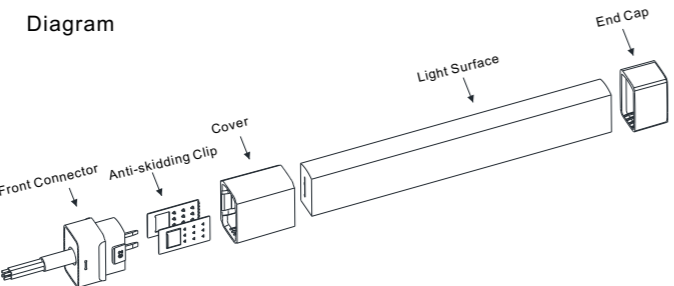PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLATION LEAVE A COPY FOR THE END USER/MAINTENANCE ENGINEER FOR FUTURE REFERENCE