

## QT70L-(BZ) / QT70LM-(BZ)

### OPERATING MANUAL

LED Steady/Flashing Modular Style multi-Function Signal Tower Lamp

Thank you for purchasing Q.Light product. Please read this manual carefully before installing this product for safe and long use.

- POLE Mounting
  - QT70L- Standard combination type
  - QT70L- BZ Built-in buzzer type
- Direct Mounting
  - QT70LM- Standard combination type
  - QT70LM- BZ Built-in buzzer type

#### ◆Module Spec

QT70L-N : Steady, QT70L-F : Steady/Flashing

### 1 Product Feature

- Flexible combination of LED module and audible module for locational condition or purpose of installation.
- According to the importance of signal, selected the best modular coordination with multi-function.
- Select the appropriate mounting option for installation environment.
- Possible volume control of buzzer for a buzzer type.
- Buzzer volume(option) : Max.90dB/m
- Flashes(Flashing Type) : 60~80/Min.
- Protection Class: IP65(Buzzer type:IP54)

### 2 Specification & External View Drawing

#### 1) General Specification

##### ■ (LED Steady module)

Model name	MODEL NUMBER (SELLING UNIT)	Detail specification	
		RATE VOLTAGE	CURRENT
Q70L-NR RED LED Steady module	Q70L-NR-12	DC12V	0.120A
	Q70L-NR-24	DC24V	0.060A
	Q70L-NR-110	AC110V	0.018A
	Q70L-NR-220	AC220V	0.020A
Q70L-NA AMBER LED Steady module	Q70L-NA-12	DC12V	0.120A
	Q70L-NA-24	DC24V	0.060A
	Q70L-NA-110	AC110V	0.018A
	Q70L-NA-220	AC220V	0.020A
Q70L-NG GREEN LED Steady module	Q70L-NG-12	DC12V	0.120A
	Q70L-NG-24	DC24V	0.060A
	Q70L-NG-110	AC110V	0.018A
	Q70L-NG-220	AC220V	0.020A
Q70L-NB BLUE LED Steady module	Q70L-NB-12	DC12V	0.120A
	Q70L-NB-24	DC24V	0.060A
	Q70L-NB-110	AC110V	0.018A
	Q70L-NB-220	AC220V	0.020A
Q70L-NC WHITE LED Steady module	Q70L-NC-12	DC12V	0.120A
	Q70L-NC-24	DC24V	0.060A
	Q70L-NC-110	AC110V	0.018A
	Q70L-NC-220	AC220V	0.020A

##### ■ LED Steady/Flashing module

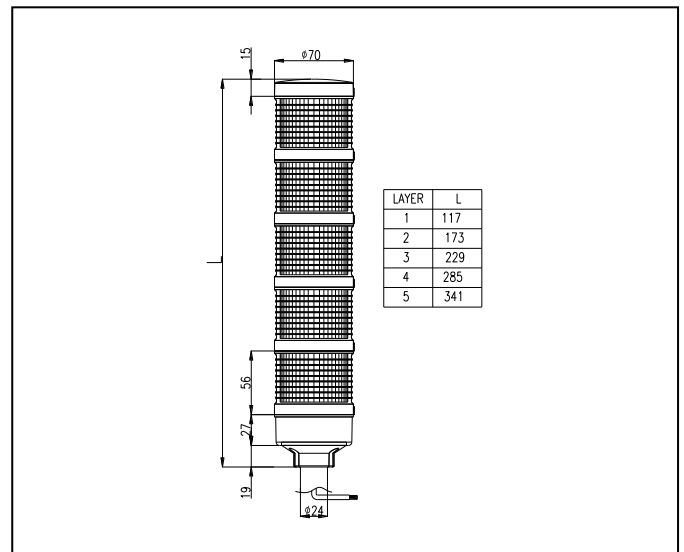
Model name	MODEL NUMBER (SELLING UNIT)	Detail specification	
		REATE VOLTAGE	CURRENT
Q70L-FR RED LED Steady/Flashing module	Q70L-FR-12	DC12V	0.120A
	Q70L-FR-24	DC24V	0.060A
	Q70L-FR-110	AC110V	0.018A
	Q70L-FR-220	AC220V	0.020A
Q70L-FA AMBER LED Steady/Flashing module	Q70L-FA-12	DC12V	0.120A
	Q70L-FA-24	DC24V	0.060A
	Q70L-FA-110	AC110V	0.018A
	Q70L-FA-220	AC220V	0.020A
Q70L-FG GREEN LED Steady/Flashing module	Q70L-FG-12	DC12V	0.120A
	Q70L-FG-24	DC24V	0.060A
	Q70L-FG-110	AC110V	0.018A
	Q70L-FG-220	AC220V	0.020A
Q70L-FB BLUE LED Steady/Flashing module	Q70L-FB-12	DC12V	0.120A
	Q70L-FB-24	DC24V	0.060A
	Q70L-FB-110	AC110V	0.018A
	Q70L-FB-220	AC220V	0.020A
Q70L-FC WHITE LED Steady/Flashing module	Q70L-FC-12	DC12V	0.120A
	Q70L-FC-24	DC24V	0.060A
	Q70L-FC-110	AC110V	0.018A
	Q70L-FC-220	AC220V	0.020A

##### ■ Buzzer module

Model name	MODEL NUMBER (SELLING UNIT)	detail specification	
		REATE VOLTAGE	CURRENT
Q70L-BZ Buzzer module	Q70L-BZ-12	DC12V	0.015A
	Q70L-BZ-24	DC24V	0.028A
	Q70L-BZ-110	AC110V	0.021A
	Q70L-BZ-220	AC220V	0.038A
Q70L-SBZ Siren Buzzer module	Q70L-SBZ-12	DC12V	0.240A
	Q70L-SBZ-24	DC24V	0.150A
	Q70L-SBZ-110	AC110V	0.018A
	Q70L-SBZ-220	AC220V	0.009A

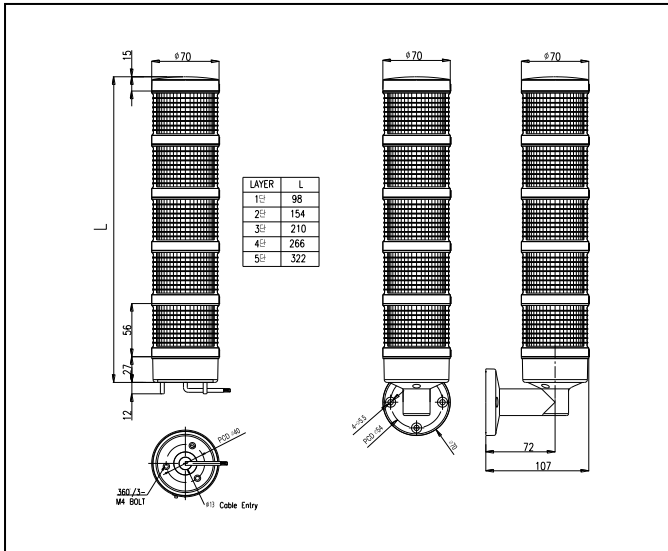
#### 2) External View Drawing

##### ■ QT70L



(Upper External View Drawing is POLE mounting.)

■ QT70LM



3 Wiring Instruction

Power lines and signal lines come out from the product. Please connect them correctly after referring to below instruction.

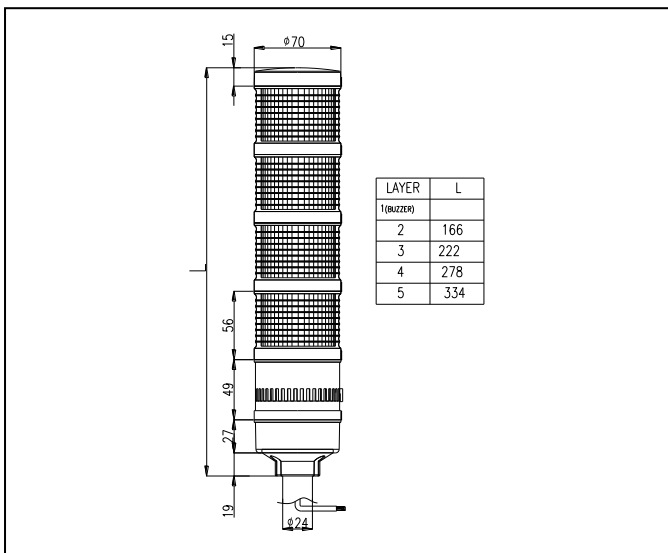
■ DC Steady(including built-in buzzer)

- Signal(Power) line: UL1007-NO.22(0.3sq) 400mm

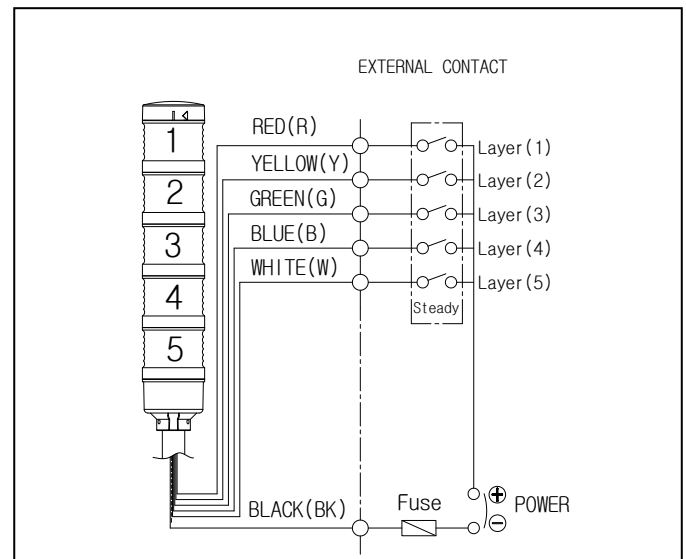
■ DC Steady/Flashing, AC Steady, AC Steady/Flashing (including built-in buzzer)

- Power line: UL1015-NO.18(0.75sq) X 2C 400mm
- Signal line: UL1007-NO.22(0.3sq) 400mm
- In case of product using AC voltage, connect the line without Polarity(wire color).
- In case of product using DC voltage, black line is negative(-).

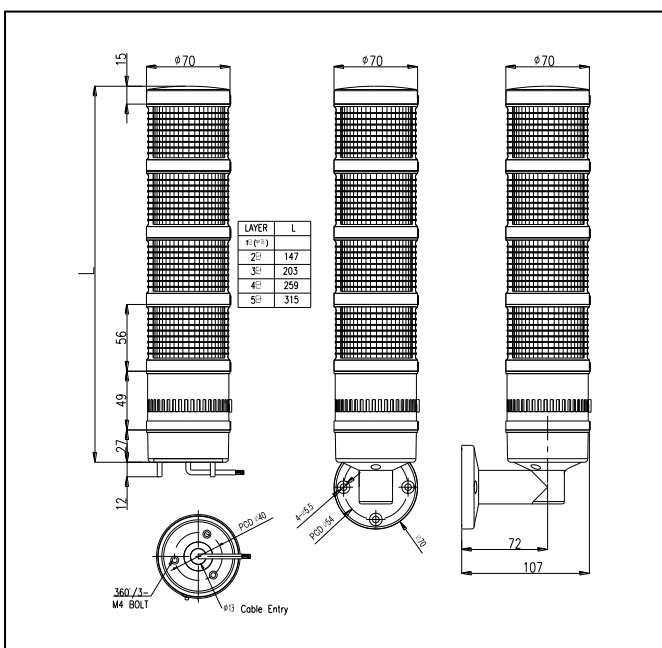
■ QT70L-BZ



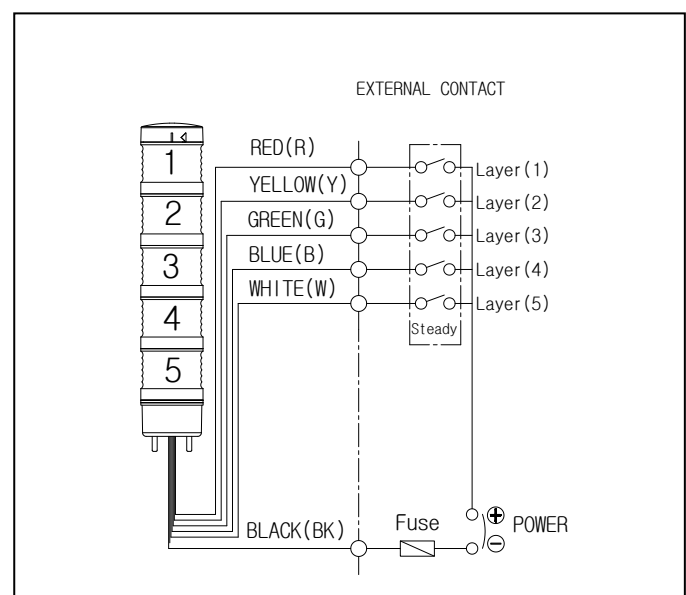
■ QTL70L



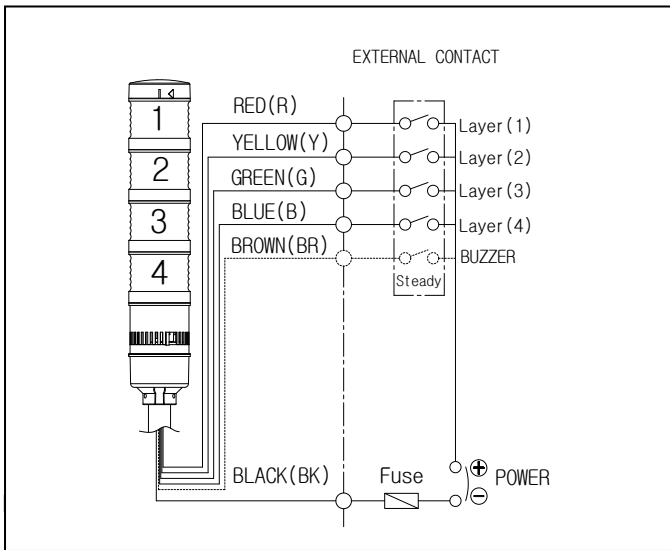
■ QT70LM-BZ



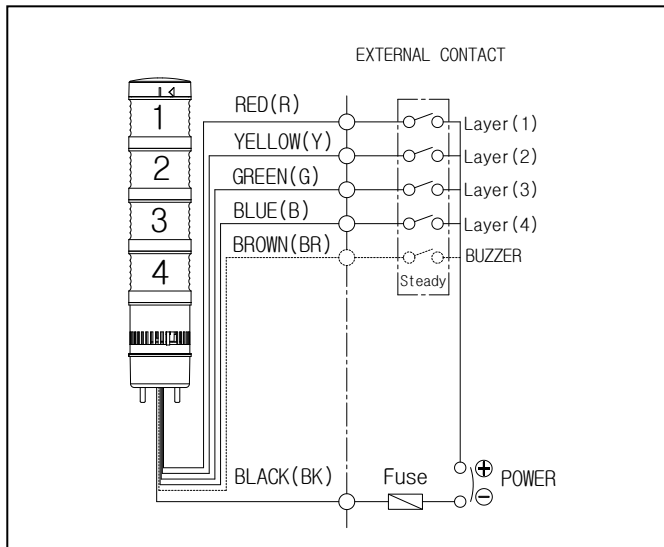
■ QTL70LM



### ■ QTL70L-BZ

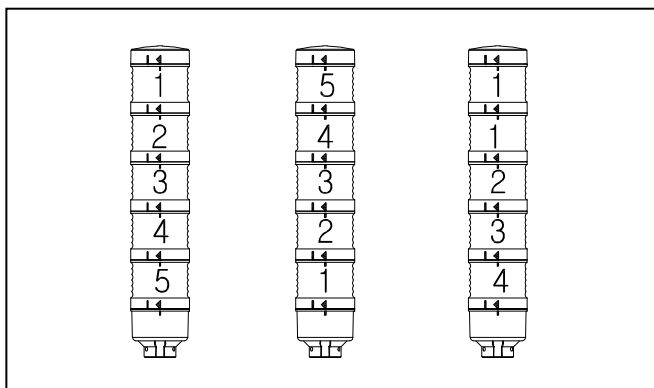


### ■ QTL70LM-BZ



## 4 Change modules and reformation

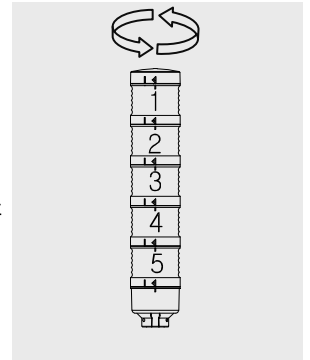
This is combined with signal light and buzzer sound as a module type. Make it easy and more reliable compare to screw-type connections. Easy color corresponds to the color of LED module to be used. All modules can be combined at any location freely except the sound tone of audible module by external contact point.(patent application)



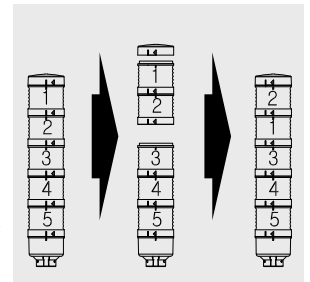
### ■ Release and reassemble

1) Make sure power is turned off before working.

2) Turn each modules counterclockwise for removing.

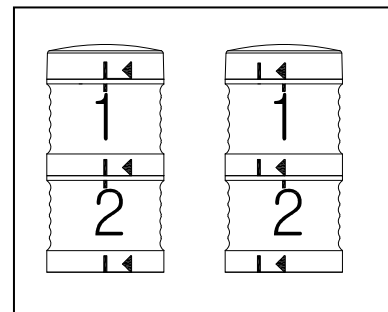


3) Rearrange the modules After releasing modules.



4) Assemble the product in reverse order of separating.

◆ For module change or reformation, please assemble by matching upper or below gradation part. Turn it until hearing clack sound when assembling.



## 5 Wiring Instruction

- This product was manufactured with the structure for indoor use.
- Mount at the place where exists low vibration, low impact, low moisture and low dust as long as possible. Mounting also should be done only on the vertical standing direction.
- Please make a hole by a drill where you need to attach our product and refer to below picture for a hole size. (Make sure PCD from external view drawing.)
- Direct Mounting: Fix the product by using nuts(M4-3EA) originally equipped on mounting bolt on bottom of the product.
- Standard: Fix the product by using the nut originally equipped

with the pole.

- Mount by using mounting bolts M8-2EA for L-type bracket and mount by using another mounting bolts M5-4EA for Wall Mounting-type and round type bracket.

### ■ Direct Mounting

QT70LM / QT70LM-BZ
PCD 40, Ø6.6X3

- Fix the product by using nuts(M4-3EA) originally equipped on mounting bolt on bottom of the product.

### ■ PLOE Mounting

	QT70L Series
Standard	SCREW & NUT 24mm
L-type bracket	LW24
Wall Mounting-type bracket	LB24
Self-standing mounting	QZ24
bendable round type bracket	SL24

\* Please refer to below 6 Wiring Instruction for the detail of bracket.

## 6 Wiring Instruction -2

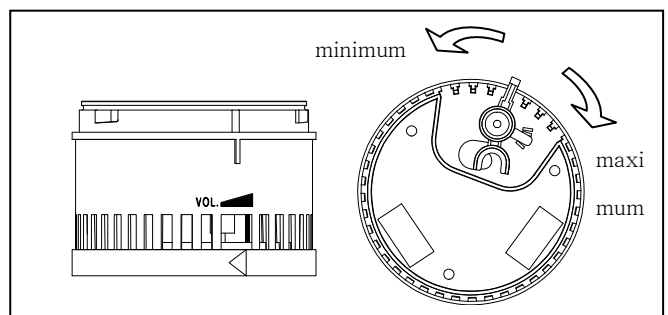
There are 4 main methods of Tower Lamp installation in accordance with the locational condition or purpose of the installation. By referring to the followings, select the method of installation corresponding to the product.

Style	Size
24mm Screw & Nut (Standard) Standard Types	
LW24	
LB24	

Q70L-WB	
QZ-24	
SZ24	
SL24	

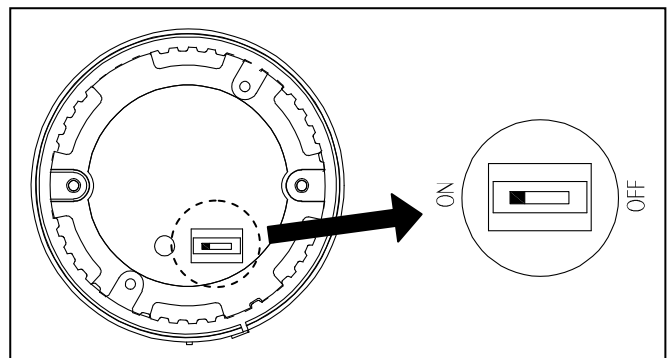
## 7 Other parts

### ■ Controlling volume(QT70L-BZ / QT70LM-BZ)



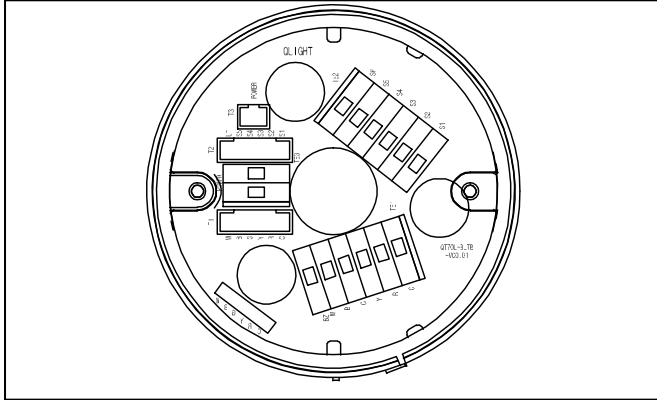
Turning the volume lever to the right/left to control buzzer.

### ■ Selecting steady or steady/flashing type



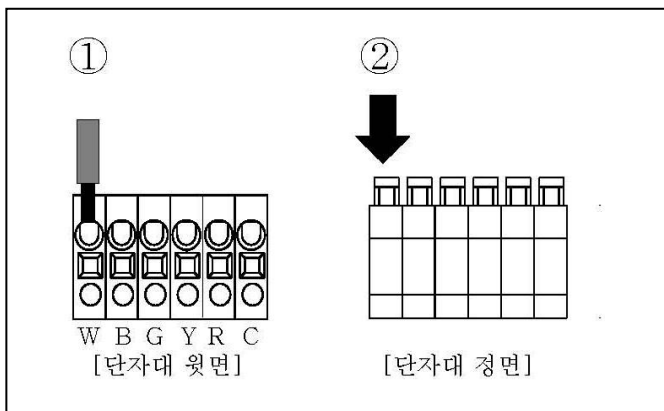
Choose steady light or flashing light by using Steady/Flashing Selecting switch(1)- SELECTOR(1). "ON" mode of the switch is for steady type and "OFF" mode is for flashing type.

### ■ Inputting base module signal line



(Chart 1)

NO	MARKING	Wire Color	OPERATION
1	C	BLACK	COMMON
2	R	RED	LED UNIT RED
3	Y	YELLOW	LED UNIT AMBER
4	G	GREEN	LED UNIT GREEN
5	B	BLUE	LED UNIT BLUE
6	W	BROWN	LED UNIT BROWN



- 1) Signal line: Connecting power line like Chart 1 as a printed order on a board.
- 2) Signal line works each module as Chart 1.
- 3) when connecting signal line to the terminal port, please molt the end of line like ① then put in.
- 4) when take off the line, please press "push" button like ②.

### 8 Caution

- When wiring is complete, make sure end of any unused wires are insulated by tape. A short circuit of signal line can cause a trouble.
- If using voltage is seriously higher or lower than rated voltage, it can reduce the self-life of the product or can cause a problem on product operating. Make sure the using voltage does not exceed  $\pm 5\%$  of the rated voltage.

- If lens or body of the product is contaminated by chemicals such as thinner, benzene, the product can be damaged, discolored or deformed. Please be careful.
- Do not strongly pull the wire out from the product. It can cause a disorder.
- Do not connect power to the signal line of steady/flashing type. Please use no power connection point.
- please do not turn modules with a strong power, it can cause a break.

### 9 Trouble shooting

Situation	Main reason	Solution
Neither Lighting nor Flashing	Wrong Wiring	Making Sure Wiring
Non- Lighting Partly	LED is partly damaged, supplying higher voltage then rated voltage.	Making Sure Using Voltage
Feeble Lighting	Supplying Voltage Lower Than Rated Voltage	Making Sure Using Voltage
Lighting but Non-Flashing	Wrong Wiring	Making Sure Wiring
No Sound	Problem with speaker	Contact Q.Light or Their Agent
Neither Lighting nor Flashing, No sound	Wrong Wiring	Making Sure Wiring
	No Power Supply	Making Sure Power Supply

### — For A/S & Information on Porduct

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