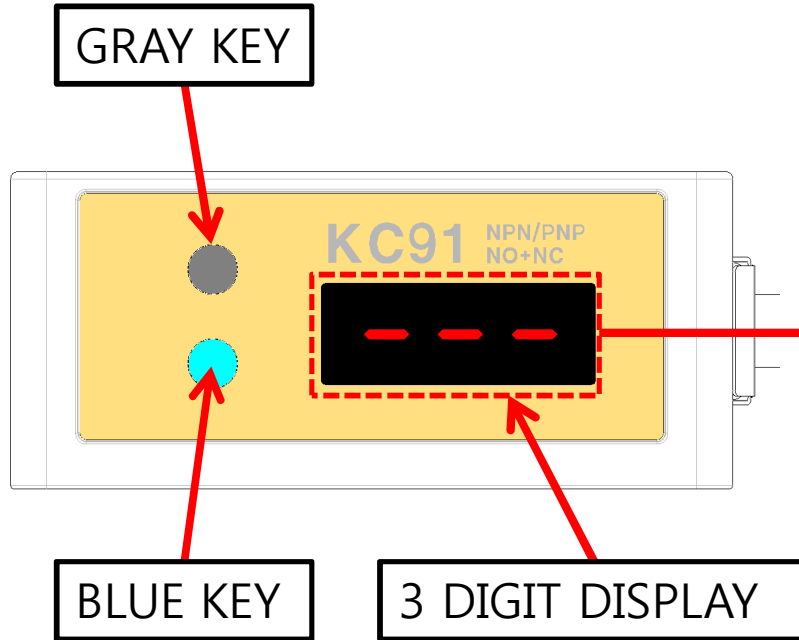
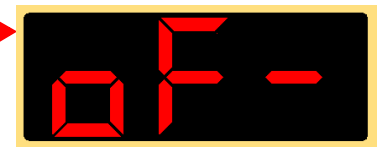
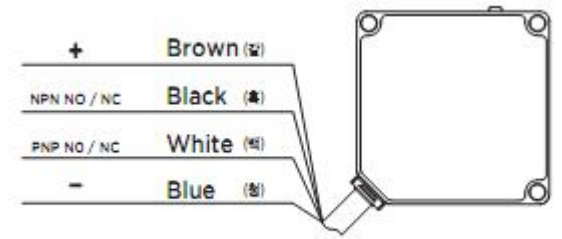


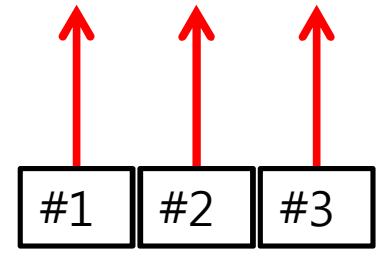
\*\* KC91 COLOR MARK SENSOR



WIRING DIAGRAM



NO , Key Lock off, Output off (Factory setting value )



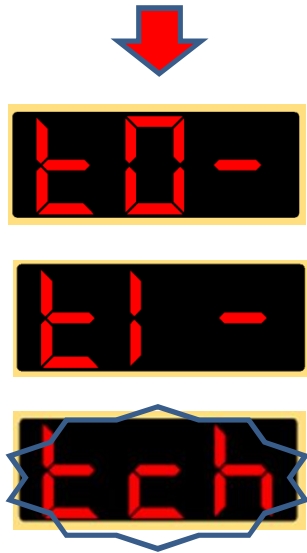
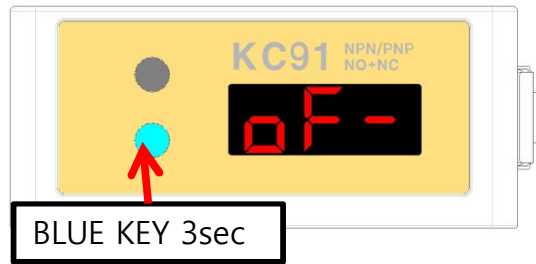
\* Key configuration

1. GRAY KEY
  - Color Balance ( will change to SET MODE )
2. BLUE KEY
  - Color teaching
3. GRAY KEY + BLUE KEY
  - Release key lock mode
  - Parameter setting confirm

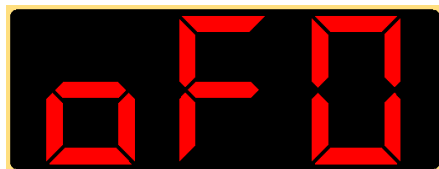
•Normal mode display indication

- #1 : Output type
  - ➔ NO : o, NC : c
- #2 : Key locking
  - ➔ KEY LOCK ON : C, KEY LOCK OFF : F
- #3 : Output signal
  - ➔ Output on : O, Output off : -

## \*\* Color teaching method



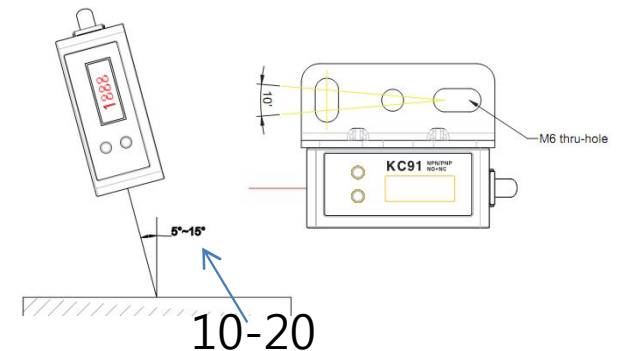
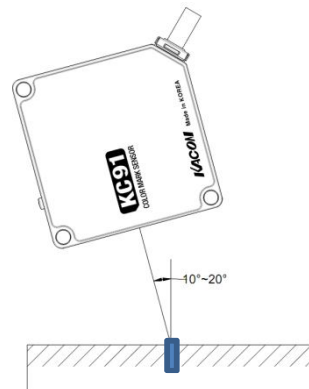
Flickering 3 times



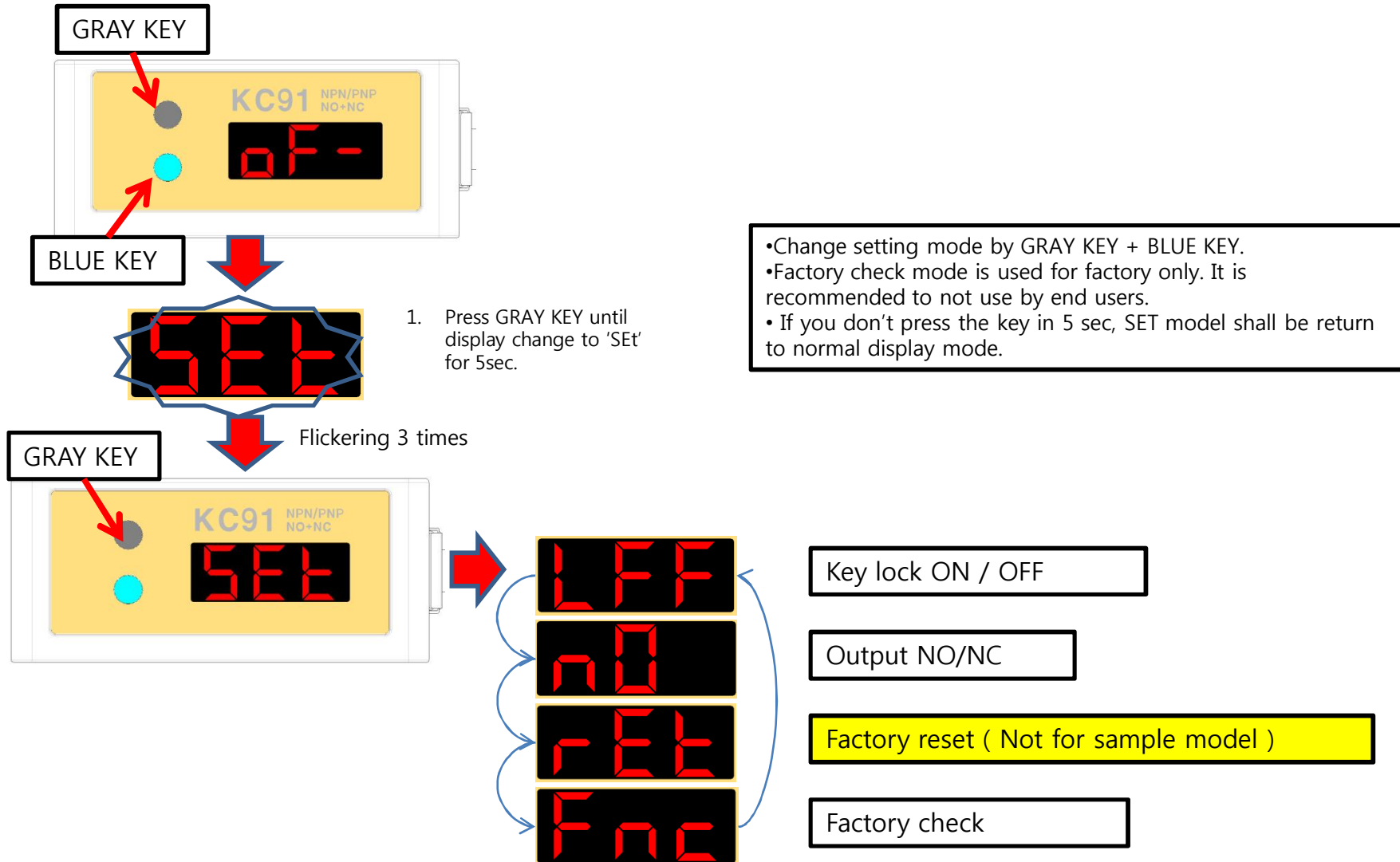
1. Install the sensor and fix at 9mm distance from target color.
2. Press 'BLUE KEY' 3 sec until indicating 'tch'.
3. If teaching is done, display shall indicate status of sensor.

### Color teaching guide

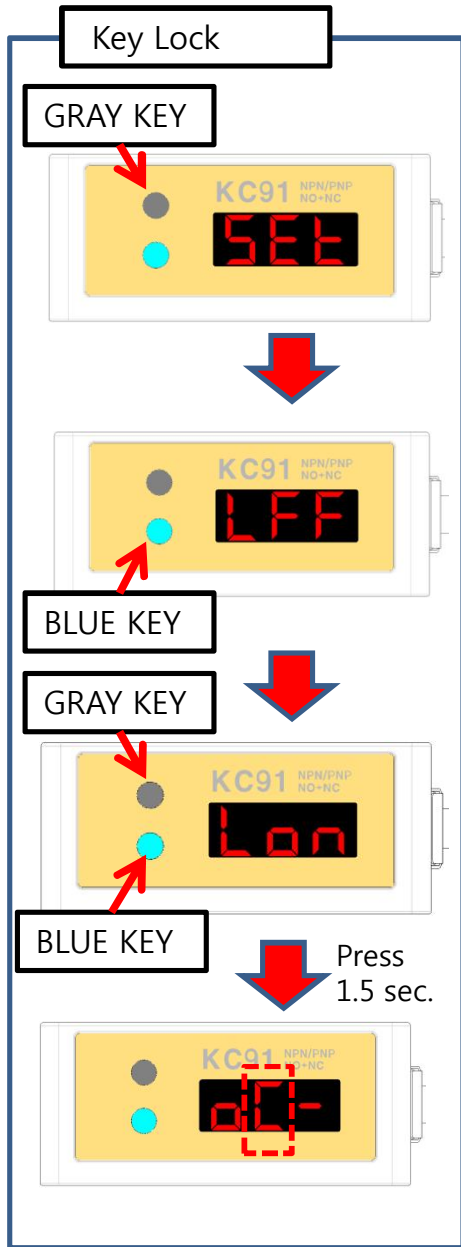
- Please check it is can distinguish background and target color when color teaching is done.
- If you detection glossy object, Mount the sensor at an angle of 10° to 20°, as following diagrams
- If you adjust color balance in balancing mode, you shall need to teach color again.
- When you have done the teaching, key locking is recommended to prevent in case of changing teaching values by event of push keys.



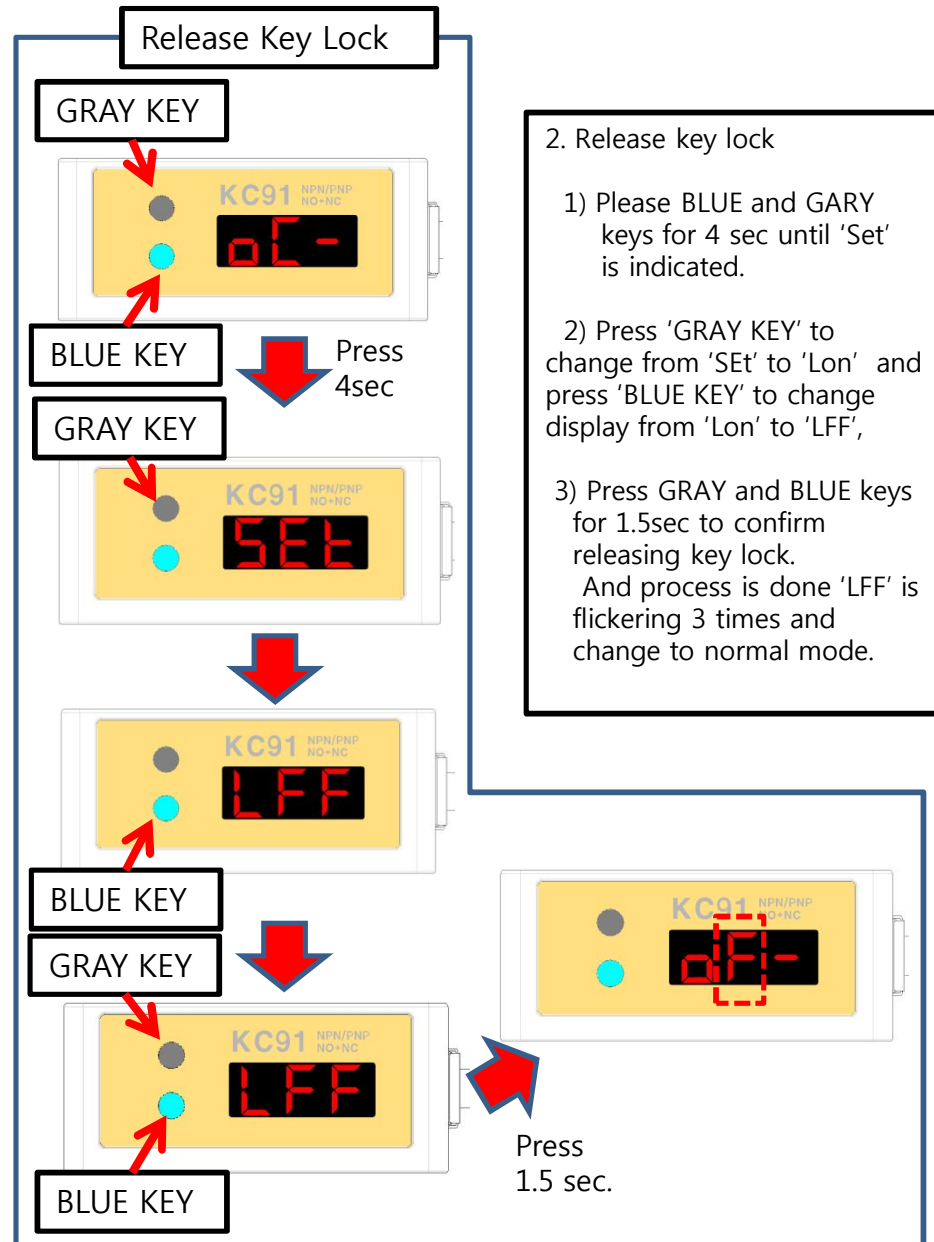
# \* Teaching parameter setting



# 1. KEY LOCK SETTING

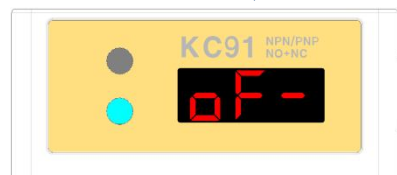
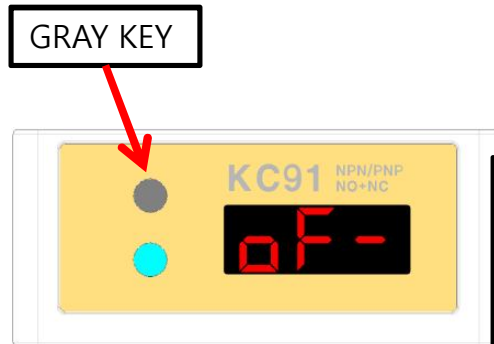


1. Key lock on
- 1) Get into 'SET' mode and change to 'LFF' by GRAY KEY input 1 time.
  - 2) Change display from 'Lon' to 'LFF' by BLUE KEY input and press 'BLUE and GRAY Keys for 1.5 sec to confirm the Key Lock setting.
  - 3) Display shall shows 'Loc' when you push the keys after Key lock setting.



2. Release key lock
- 1) Please BLUE and GARY keys for 4 sec until 'Set' is indicated.
  - 2) Press 'GRAY KEY' to change from 'Set' to 'Lon' and press 'BLUE KEY' to change display from 'Lon' to 'LFF',
  - 3) Press GRAY and BLUE keys for 1.5sec to confirm releasing key lock. And process is done 'LFF' is flickering 3 times and change to normal mode.

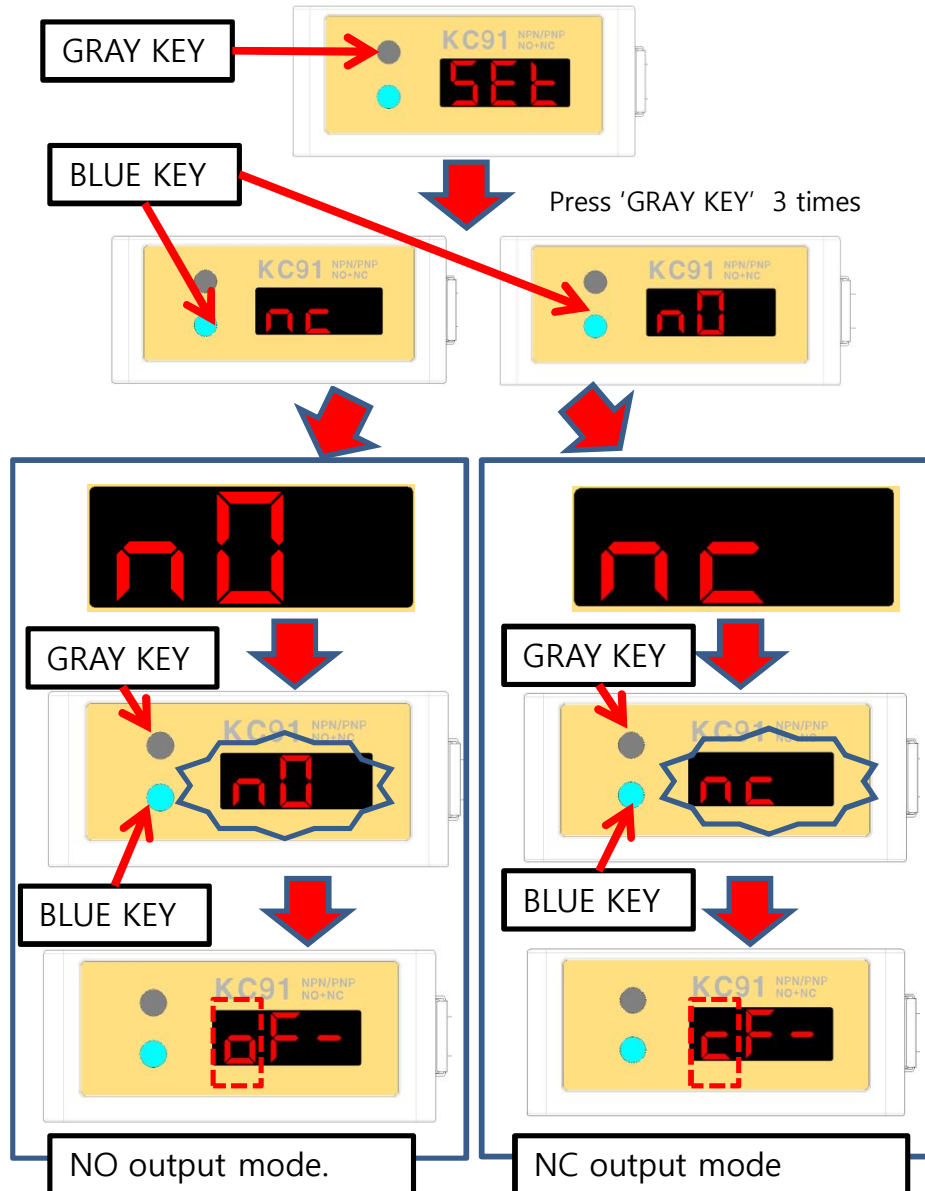
## 2. Color balance



1. Press GRAY KEY till 'BAL' is displayed.
  2. Place non-shining white paper or background color\* at the same position of teaching color.
  3. Once color balance is done 'BAL' is flicking 3 times and return to normal mode.
- If you have variety color on background of teaching color, you shall place non-shining white paper. And if the background color is only one, you shall set the color balance on background directly.

- Caution to set color balance :
  - KC91 has got default color balance value from factory
  - But if you are facing some difficult of distinguish color between background and teaching color, you shall try color balance setting to apply circumstance of teaching color to operation algorithm.
  - Also color balance value is not set correctly KC91 shall not operate as its own purpose. So please pay attention direction of manual when you set the color balance.
  - You shall return to default color balance value by factory reset funtion.

### 3. OUTPUT NO/NC



Output mode :

nO : Release a output signal for teaching color.

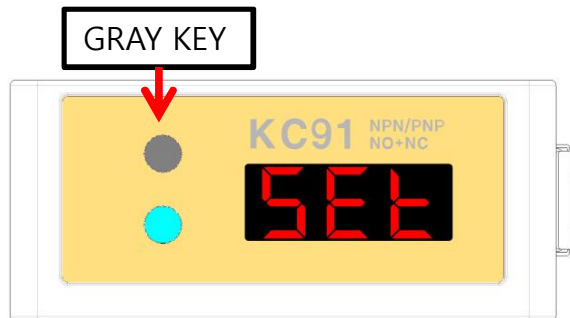
It is a factory default setting value.

nC : It is reverse signal of nO. It release output signal for background of teaching color.

1. Press 'GRAY KEY' 3 times till 'nO' or 'nc' is displayed.

2. Press 'BLUE KEY' to change mode 'nc' or 'nO' and press BLUE and GRAY keys for 1.5 sec to confirm the changed output mode. Once setting is done 'nc' or 'nO' is flicking 3 times and return to normal mode.

#### 4. Factory Reset ( not for sample products)



- \* Factory reset parameter
- 1. Key lock : Release
- 2. Color balance : default
- 3. Output : 'nO' output
- 4. Teaching color : No teaching value



- 1. Press 'GRAY KEY' 4 times till 'rEt' is displayed.
- 2. Press 2 key for 1.5sec to confirm factory reset
- 3. Once factory reset is done, 'rEt' is flicking 3 times and return to normal mode.

