

## Packing List

In addition to this guide, the package includes the following items:



iWSN-110X Series  
Module



Split-core CT



Screw Driver (1C016)

| Module Name      | Split-core CT                        | Module Name      | Split-core CT                        |
|------------------|--------------------------------------|------------------|--------------------------------------|
| iWSN-110X-PCT-ME | Without CT                           | iWSN-110X-240-ME | 8m, $\Phi 24\text{mm}$ (200A), 1 pcs |
| iWSN-110X-160-ME | 8m, $\Phi 16\text{mm}$ (100A), 1 pcs | iWSN-110X-360-ME | 8m, $\Phi 36\text{mm}$ (400A), 1 pcs |

## Resources

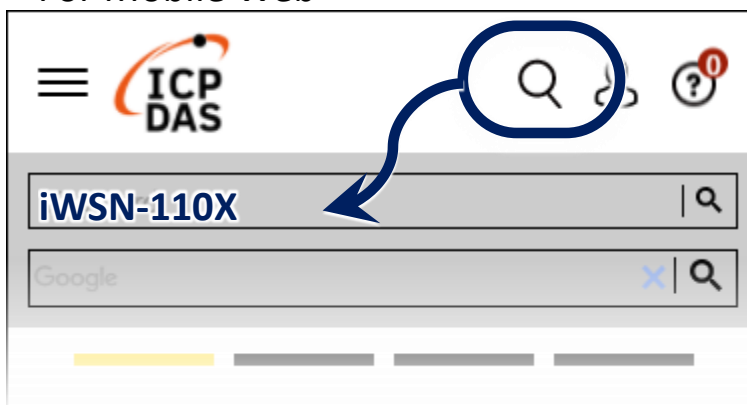
### Technical Support

[service@icpdas.com](mailto:service@icpdas.com)

[www.icpdas.com](http://www.icpdas.com)

How to search for drivers, manuals and spec information on ICP DAS website.

- For Mobile Web



- For Desktop Web





## Warning

ICP DAS assumes no liability for any damage resulting from the use of this product. ICP DAS reserves the right to change this manual at any time without notice. The information furnished by ICP DAS is believed to be accurate and reliable. However, no responsibility is assumed by ICP DAS for its use, not for any infringements of patents or other rights of third parties resulting from its use.

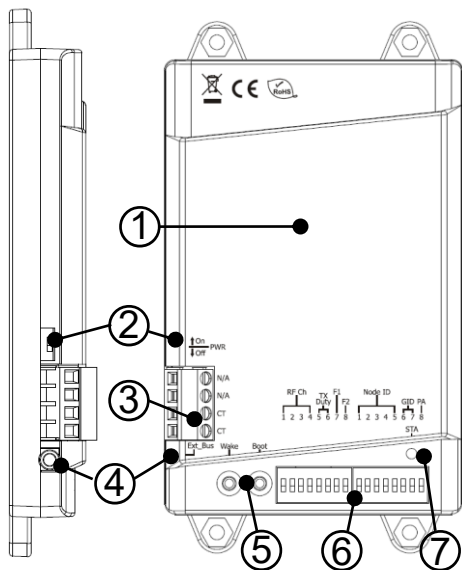
## Limitation of Warranty

This warranty does not apply to defects resulting from unauthorized modification, misuse, or use for reason other than electrical power monitoring.

## Product Warranty & Customer Support

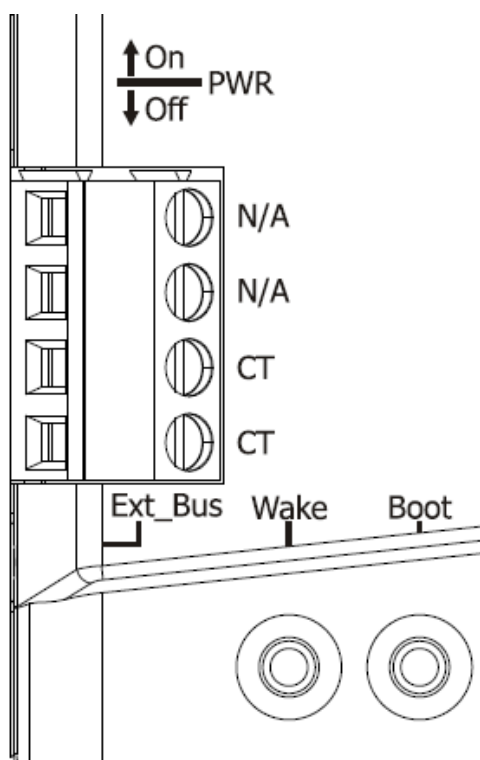
ICP DAS warrants all products free from defects in material and workmanship for a period of one year from the date of shipping. During the warranty period, we will, at our position, either repair or replace any product that proves to be defective. To report any defect, please contact us. Please have the model, serial number and a detailed problem description available when you call. When returning any merchandise to ICP DAS, a return SN. Is required.

# 1 Appearance



| Number | Instructions                    |
|--------|---------------------------------|
| 1      | Build in PCB antenna            |
| 2      | DIP switch of power             |
| 3      | CT connection terminal          |
| 4      | Extension port                  |
| 5      | Boot and wake button            |
| 6      | DIP switch of parameter setting |
| 7      | LED indicator                   |

## 2 Wire and Buttons



| Switch | Instructions |           |
|--------|--------------|-----------|
| PWR    | ON           | Power on  |
|        | OFF          | Power off |

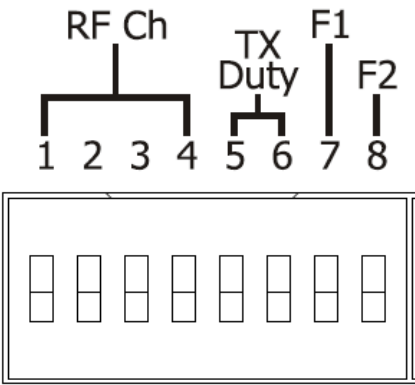
| Pin | Name | Instructions                                                                  |
|-----|------|-------------------------------------------------------------------------------|
| 4   | N/A  | Reserved, empty or shorted                                                    |
| 3   | N/A  |                                                                               |
| 2   | CT   | Split-core CT pin, no directionality, support measuring and charging function |
| 1   | CT   |                                                                               |

| Extension bus | Instructions                      |
|---------------|-----------------------------------|
| Ext_Bus       | Empty or connect extension module |

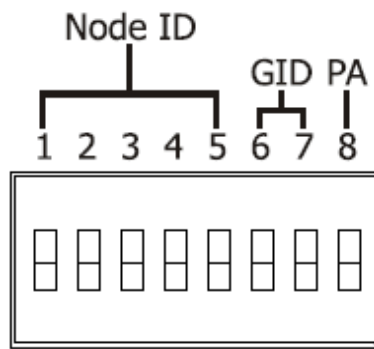
| Button | Instructions                                                                                                 |
|--------|--------------------------------------------------------------------------------------------------------------|
| Wake   | Manual wake up                                                                                               |
| Boot   | After pressing for 1~3 seconds, the LED light will be on for 1 second and then off. This mean boot complete. |

3

Communication parameter



| Name                                                     | Instructions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   |   |   |    |     |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|----|-----|---|---|---|--|--------|-----|--|--|--|----|-----|--|--|-------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F2                                                       | Reserved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   |   |   |    |     |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| F1                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |   |   |   |    |     |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| TX Duty<br>( RF transmit duty )<br><br>■ : ON<br>□ : OFF | <table><tr><th rowspan="2">Period</th><th colspan="4">Pin</th></tr><tr><th>5</th><th colspan="3">6</th></tr><tr><td>1 sec</td><td>□</td><td colspan="3">□</td></tr><tr><td>10 sec</td><td>■</td><td colspan="3">□</td></tr><tr><td>30 sec</td><td>□</td><td colspan="3">■</td></tr><tr><td>60 sec</td><td>■</td><td colspan="3">■</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |    |     |   |   |   |  | Period | Pin |  |  |  | 5  | 6   |  |  | 1 sec | □ | □ |   |   | 10 sec | ■ | □ |   |   | 30 sec | □ | ■ |   |   | 60 sec | ■ | ■ |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Period                                                   | Pin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |   |   |    |     |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 6 |   |   |    |     |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1 sec                                                    | □                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | □ |   |   |    |     |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 10 sec                                                   | ■                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | □ |   |   |    |     |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 30 sec                                                   | □                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ■ |   |   |    |     |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 60 sec                                                   | ■                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ■ |   |   |    |     |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| RF Ch<br>( RF Channel )<br><br>■ : ON<br>□ : OFF         | <table><tr><th rowspan="2">Ch</th><th colspan="4">Pin</th><th rowspan="2">Ch</th><th colspan="4">Pin</th></tr><tr><th>1</th><th>2</th><th>3</th><th>4</th><th>1</th><th>2</th><th>3</th><th>4</th></tr><tr><td>0</td><td>□</td><td>□</td><td>□</td><td>□</td><td>8</td><td>□</td><td>□</td><td>□</td><td>■</td></tr><tr><td>1</td><td>■</td><td>□</td><td>□</td><td>□</td><td>9</td><td>■</td><td>□</td><td>□</td><td>■</td></tr><tr><td>2</td><td>□</td><td>■</td><td>□</td><td>□</td><td>A</td><td>□</td><td>■</td><td>□</td><td>■</td></tr><tr><td>3</td><td>■</td><td>■</td><td>□</td><td>□</td><td>B</td><td>■</td><td>■</td><td>□</td><td>■</td></tr><tr><td>4</td><td>□</td><td>□</td><td>■</td><td>□</td><td>C</td><td>□</td><td>□</td><td>■</td><td>■</td></tr><tr><td>5</td><td>■</td><td>□</td><td>■</td><td>□</td><td>D</td><td>■</td><td>□</td><td>■</td><td>■</td></tr><tr><td>6</td><td>□</td><td>■</td><td>■</td><td>□</td><td>E</td><td>□</td><td>■</td><td>■</td><td>■</td></tr><tr><td>7</td><td>■</td><td>■</td><td>■</td><td>□</td><td>F</td><td>■</td><td>■</td><td>■</td><td>■</td></tr></table> |   |   |   |    |     |   |   |   |  | Ch     | Pin |  |  |  | Ch | Pin |  |  |       | 1 | 2 | 3 | 4 | 1      | 2 | 3 | 4 | 0 | □      | □ | □ | □ | 8 | □      | □ | □ | ■ | 1 | ■ | □ | □ | □ | 9 | ■ | □ | □ | ■ | 2 | □ | ■ | □ | □ | A | □ | ■ | □ | ■ | 3 | ■ | ■ | □ | □ | B | ■ | ■ | □ | ■ | 4 | □ | □ | ■ | □ | C | □ | □ | ■ | ■ | 5 | ■ | □ | ■ | □ | D | ■ | □ | ■ | ■ | 6 | □ | ■ | ■ | □ | E | □ | ■ | ■ | ■ | 7 | ■ | ■ | ■ | □ | F | ■ | ■ | ■ | ■ |
| Ch                                                       | Pin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |   |   | Ch | Pin |   |   |   |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                                          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2 | 3 | 4 |    | 1   | 2 | 3 | 4 |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 0                                                        | □                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | □ | □ | □ | 8  | □   | □ | □ | ■ |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1                                                        | ■                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | □ | □ | □ | 9  | ■   | □ | □ | ■ |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2                                                        | □                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ■ | □ | □ | A  | □   | ■ | □ | ■ |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 3                                                        | ■                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ■ | □ | □ | B  | ■   | ■ | □ | ■ |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4                                                        | □                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | □ | ■ | □ | C  | □   | □ | ■ | ■ |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 5                                                        | ■                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | □ | ■ | □ | D  | ■   | □ | ■ | ■ |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6                                                        | □                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ■ | ■ | □ | E  | □   | ■ | ■ | ■ |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 7                                                        | ■                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ■ | ■ | □ | F  | ■   | ■ | ■ | ■ |  |        |     |  |  |  |    |     |  |  |       |   |   |   |   |        |   |   |   |   |        |   |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |



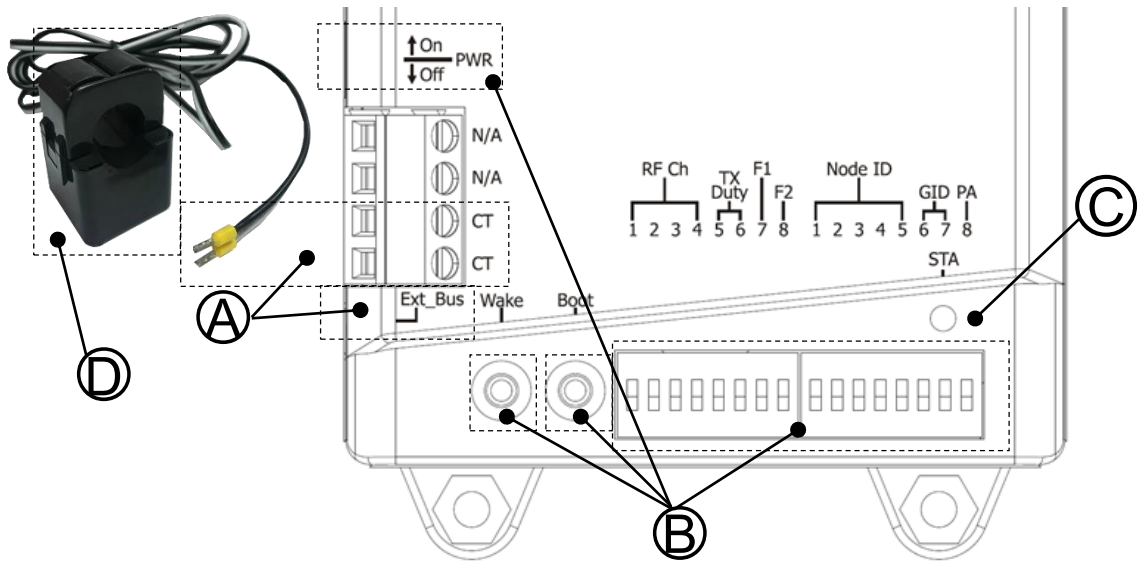
| Name                                           | Instructions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |     |   |   |    |    |      |      |     |       |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|---|---|----|----|------|------|-----|-------|-----|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|----|---|---|---|---|---|
| PA                                             | Factory Only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |     |   |   |    |    |      |      |     |       |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
| GID<br>(Group ID)<br><br>■ : ON<br><br>□ : OFF | <table><tr><td rowspan="2">Group</td><td colspan="2">Pin</td></tr><tr><td>6</td><td>7</td></tr><tr><td>0</td><td>□</td><td>□</td></tr><tr><td>1</td><td>■</td><td>□</td></tr><tr><td>2</td><td>□</td><td>■</td></tr><tr><td>3</td><td>■</td><td>■</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |     |   |   |    |    |      |      |     | Group | Pin |  | 6 | 7 | 0 | □ | □ | 1 | ■ | □ | 2 | □ | ■ | 3 | ■ | ■ |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | Group                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Pin  |     |   |   |    |    |      |      |     |       |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6    | 7   |   |   |    |    |      |      |     |       |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | □    | □   |   |   |    |    |      |      |     |       |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ■    | □   |   |   |    |    |      |      |     |       |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | □    | ■   |   |   |    |    |      |      |     |       |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
| 3                                              | ■                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ■    |     |   |   |    |    |      |      |     |       |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
| Node ID<br><br>■ : ON<br><br>□ : OFF           | <table><tr><td rowspan="2">Node</td><td colspan="5">Pin</td><td rowspan="2">Node</td><td colspan="5">Pin</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>0</td><td>□</td><td>□</td><td>□</td><td>□</td><td>□</td><td>16</td><td>□</td><td>□</td><td>□</td><td>□</td><td>■</td></tr><tr><td>1</td><td>■</td><td>□</td><td>□</td><td>□</td><td>□</td><td>17</td><td>■</td><td>□</td><td>□</td><td>□</td><td>■</td></tr><tr><td>2</td><td>□</td><td>■</td><td>□</td><td>□</td><td>□</td><td>18</td><td>□</td><td>■</td><td>□</td><td>□</td><td>■</td></tr><tr><td>3</td><td>■</td><td>■</td><td>□</td><td>□</td><td>□</td><td>19</td><td>■</td><td>■</td><td>□</td><td>□</td><td>■</td></tr><tr><td>4</td><td>□</td><td>□</td><td>■</td><td>□</td><td>□</td><td>20</td><td>□</td><td>□</td><td>■</td><td>□</td><td>■</td></tr><tr><td>5</td><td>■</td><td>□</td><td>■</td><td>□</td><td>□</td><td>21</td><td>■</td><td>□</td><td>■</td><td>□</td><td>■</td></tr><tr><td>6</td><td>□</td><td>■</td><td>■</td><td>□</td><td>□</td><td>22</td><td>□</td><td>■</td><td>■</td><td>□</td><td>■</td></tr><tr><td>7</td><td>■</td><td>■</td><td>■</td><td>□</td><td>□</td><td>23</td><td>■</td><td>■</td><td>■</td><td>□</td><td>■</td></tr><tr><td>8</td><td>□</td><td>□</td><td>□</td><td>■</td><td>□</td><td>24</td><td>□</td><td>□</td><td>□</td><td>■</td><td>■</td></tr><tr><td>9</td><td>■</td><td>□</td><td>□</td><td>■</td><td>□</td><td>25</td><td>■</td><td>□</td><td>□</td><td>■</td><td>■</td></tr><tr><td>10</td><td>□</td><td>■</td><td>□</td><td>■</td><td>□</td><td>26</td><td>□</td><td>■</td><td>□</td><td>■</td><td>■</td></tr><tr><td>11</td><td>■</td><td>■</td><td>□</td><td>■</td><td>□</td><td>27</td><td>■</td><td>■</td><td>□</td><td>■</td><td>■</td></tr><tr><td>12</td><td>□</td><td>□</td><td>■</td><td>■</td><td>□</td><td>28</td><td>□</td><td>□</td><td>■</td><td>■</td><td>■</td></tr><tr><td>13</td><td>■</td><td>□</td><td>■</td><td>■</td><td>□</td><td>29</td><td>■</td><td>□</td><td>■</td><td>■</td><td>■</td></tr><tr><td>14</td><td>□</td><td>■</td><td>■</td><td>■</td><td>□</td><td>30</td><td>□</td><td>■</td><td>■</td><td>■</td><td>■</td></tr><tr><td>15</td><td>■</td><td>■</td><td>■</td><td>■</td><td>□</td><td>31</td><td>■</td><td>■</td><td>■</td><td>■</td><td>■</td></tr></table> | Node | Pin |   |   |    |    | Node | Pin  |     |       |     |  | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 0 | □ | □ | □ | □ | □ | 16 | □ | □ | □ | □ | ■ | 1 | ■ | □ | □ | □ | □ | 17 | ■ | □ | □ | □ | ■ | 2 | □ | ■ | □ | □ | □ | 18 | □ | ■ | □ | □ | ■ | 3 | ■ | ■ | □ | □ | □ | 19 | ■ | ■ | □ | □ | ■ | 4 | □ | □ | ■ | □ | □ | 20 | □ | □ | ■ | □ | ■ | 5 | ■ | □ | ■ | □ | □ | 21 | ■ | □ | ■ | □ | ■ | 6 | □ | ■ | ■ | □ | □ | 22 | □ | ■ | ■ | □ | ■ | 7 | ■ | ■ | ■ | □ | □ | 23 | ■ | ■ | ■ | □ | ■ | 8 | □ | □ | □ | ■ | □ | 24 | □ | □ | □ | ■ | ■ | 9 | ■ | □ | □ | ■ | □ | 25 | ■ | □ | □ | ■ | ■ | 10 | □ | ■ | □ | ■ | □ | 26 | □ | ■ | □ | ■ | ■ | 11 | ■ | ■ | □ | ■ | □ | 27 | ■ | ■ | □ | ■ | ■ | 12 | □ | □ | ■ | ■ | □ | 28 | □ | □ | ■ | ■ | ■ | 13 | ■ | □ | ■ | ■ | □ | 29 | ■ | □ | ■ | ■ | ■ | 14 | □ | ■ | ■ | ■ | □ | 30 | □ | ■ | ■ | ■ | ■ | 15 | ■ | ■ | ■ | ■ | □ | 31 | ■ | ■ | ■ | ■ | ■ |
|                                                | Node                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      | Pin |   |   |    |    |      | Node | Pin |       |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1    | 2   | 3 | 4 | 5  | 1  | 2    |      | 3   | 4     | 5   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | □    | □   | □ | □ | □  | 16 | □    | □    | □   | □     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ■    | □   | □ | □ | □  | 17 | ■    | □    | □   | □     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | □    | ■   | □ | □ | □  | 18 | □    | ■    | □   | □     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ■    | ■   | □ | □ | □  | 19 | ■    | ■    | □   | □     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | □    | □   | ■ | □ | □  | 20 | □    | □    | ■   | □     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ■    | □   | ■ | □ | □  | 21 | ■    | □    | ■   | □     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | □    | ■   | ■ | □ | □  | 22 | □    | ■    | ■   | □     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ■    | ■   | ■ | □ | □  | 23 | ■    | ■    | ■   | □     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | □    | □   | □ | ■ | □  | 24 | □    | □    | □   | ■     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ■    | □   | □ | ■ | □  | 25 | ■    | □    | □   | ■     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | □    | ■   | □ | ■ | □  | 26 | □    | ■    | □   | ■     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ■    | ■   | □ | ■ | □  | 27 | ■    | ■    | □   | ■     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
|                                                | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | □    | □   | ■ | ■ | □  | 28 | □    | □    | ■   | ■     | ■   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
| 13                                             | ■                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | □    | ■   | ■ | □ | 29 | ■  | □    | ■    | ■   | ■     |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
| 14                                             | □                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ■    | ■   | ■ | □ | 30 | □  | ■    | ■    | ■   | ■     |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |
| 15                                             | ■                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ■    | ■   | ■ | □ | 31 | ■  | ■    | ■    | ■   | ■     |     |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |    |   |   |   |   |   |

## 4 LED indicator

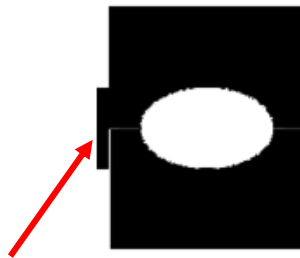
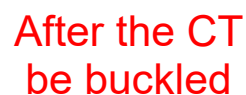
The module provides one LED indicator. The table below will show the LED status.

| Indicators | Status                       | Instructions                                                                                                                                                                                                                                                             |
|------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STA        | 500ms<br>Blink<br>continuous | Illegal Node ID, please set the Node ID to 1~31, and then power on.                                                                                                                                                                                                      |
|            | Blink once                   | Low battery power.<br>1. Please confirm whether the CT is lock into the “CT” pin of the module and bucked to the wire for charging.<br>2. If have any questions, please contact technology support.                                                                      |
|            | Blink twice                  | Component status is abnormal.<br>1. Please confirm whether the audio line of “Ext_Bus” is fully inserted and the module is power off. And power on after press “Wake” and “Boot” buttons for 5 seconds.<br>2. If have any questions, please contact technology support.  |
|            | Blink three<br>times         | Unable to confirm sensor type.<br>1. Please confirm whether the audio line of “Ext_Bus” is fully inserted and the module is power off. And power on after press “Wake” and “Boot” buttons for 5 seconds.<br>2. If have any questions, please contact technology support. |

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- A. Please confirm the CT is locked into the module, and “Ext\_Bus” is connected an extension module by audio line. (If there is no extension module, the “Ext\_Bus” don’t be connected.)
- B. Adjusting DIP switch and set the parameter of communication, and switch “PWR” to OFF. And then switch “PWR” to ON after press “Wake” and “Boot” buttons for 5 seconds.
- C. When power on, if “STA” will light on for 1 second and off, this mean boot complete. If “STA” do not be lighted, please press “Boot” for 1~3 seconds, and confirm “STA” will light on for 1 second and off. Finally, press “Wake” once, confirm “STA” blink once to complete the boot.
- D. Connect the CT to the cable to be measured. The buckle has no directionality, but after the buckle, you must confirm that the opening is completely closed.



Confirm the opening is completely closed

**Note :**

1. If you need to remove the terminal lines, always detach the CT before removing the CT terminal lines. Otherwise the CT may develop open-circuit secondary voltages which may be hazardous to personnel or damaging to the CT or equipment connected in the secondary circuit.
2. The external CT's are fragile, please handle with care.
3. The current input of the iWSN-110X series only supports the factory-attached CT.
4. To install CT's correctly, please ensure the CT lines sequences is right before clip the CT's onto the power cable of the monitoring equipment.
5. Please select the appropriate size CT for different size monitoring equipment cables: power line diameter  $<\Phi 24$  using 200A CT,  $\Phi 36$  using 400A CT.
6. The maximum current value cannot exceed the CT rating.