I-7531 / I-7531-UT Quick Start

v1.6, February 2018

What's in the box?

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

I-7531 / I-7531-UT

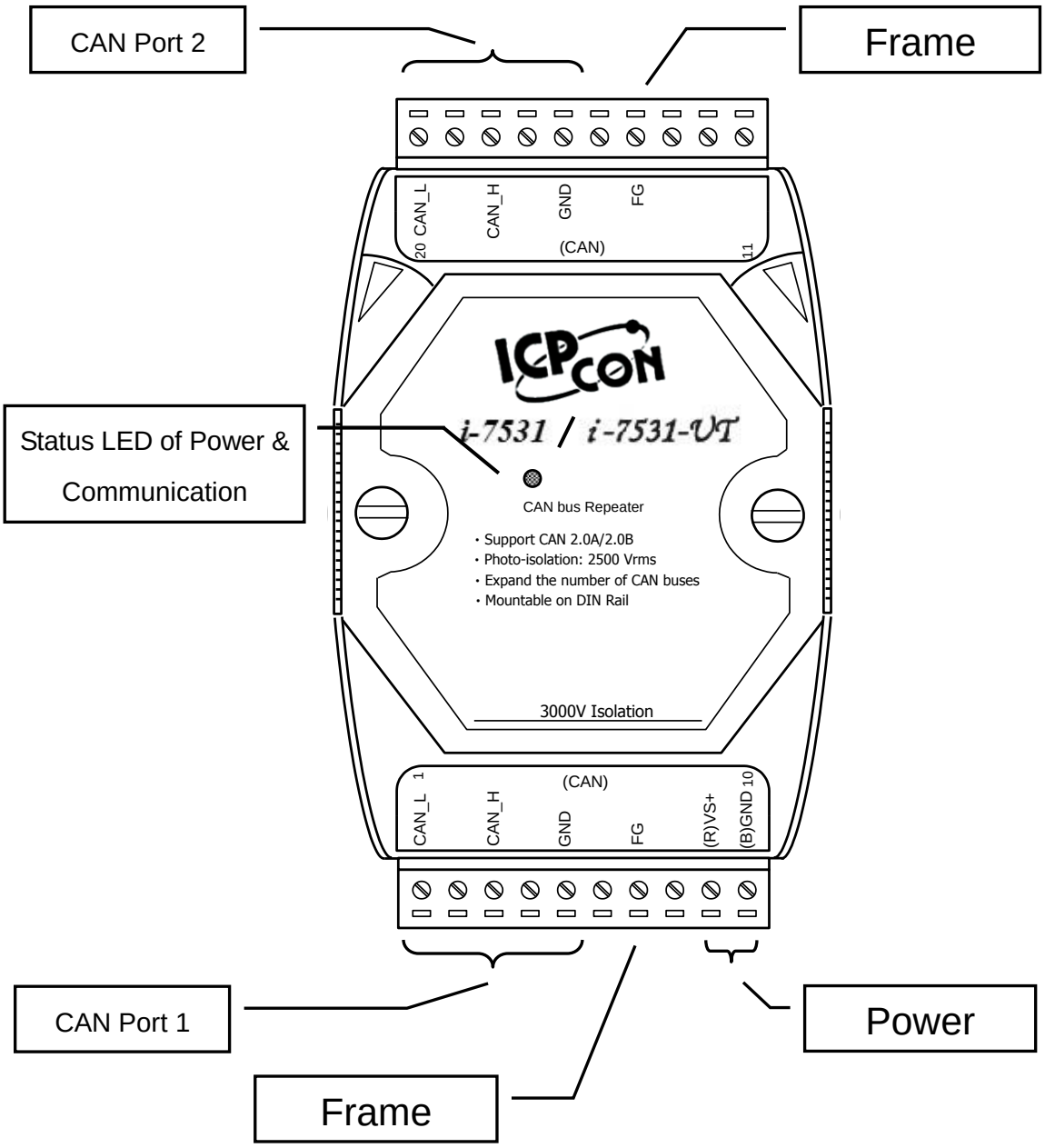
CD

Plastic rail

Technical Support

- **I-7531(-UT) User Manual：**
  - CD: \can\converter\i-7531\manual
  - http://ftp.icpdas.com/pub/cd/fieldbus_cd/can/converter/i-7531/manual/
- **I-7531(-UT) Official Website：**
  - http://www.icpdas.com/root/product/solutions/industrial_communication/fieldbus/can_bus/repeater/i-7531.html

1 Hardware Structure



When the I-7531 / I-7531-UT is turned on, the status LED will be display with red light.

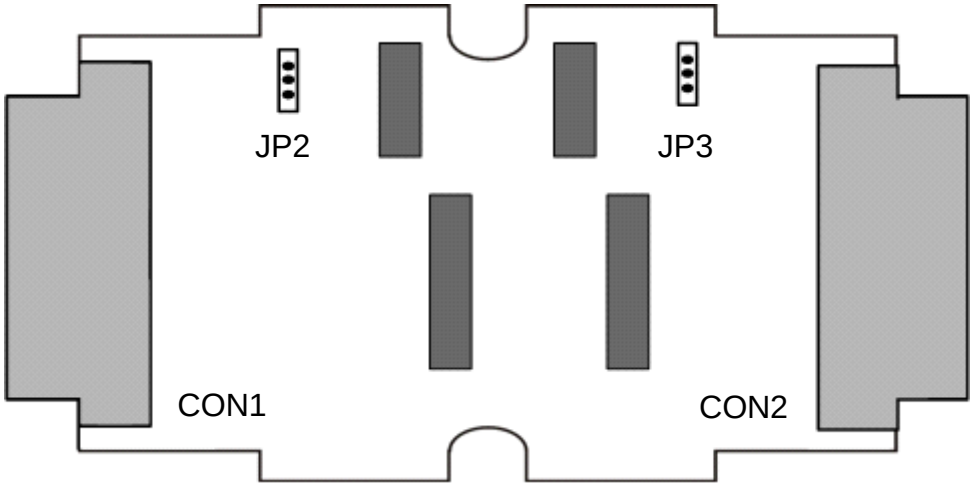
Note1: Twinkling rate correlates with baud rate of CAN bus. Users may see no twinkling when the twinkling period is too short because of the higher baud rate of CAN bus. Besides, the yellow LED could look like always on when bus loading is heavy.

2 Terminator Resistor Setting

According to the ISO 11898 specifications, the CAN bus network must be terminated by one terminal resistor on each end of CAN bus for proper operation.

The JP2 of I-7531 / I-7531-UT is used for adjusting terminal resistor (120Ω) on CAN Port 1, and the JP3 of I-7531 / I-7531-UT is used for adjusting terminal resistor on CAN Port 2.

Before setting terminal resistor (120Ω) of I-7531 / / I-7531-UT, user needs to open the cover of I-7531 / I-7531-UT first. Those locations of JP2 and JP3 are shown as following figure:



The following connection statuses present the condition if the terminal resistor is enabled (default) or disabled.

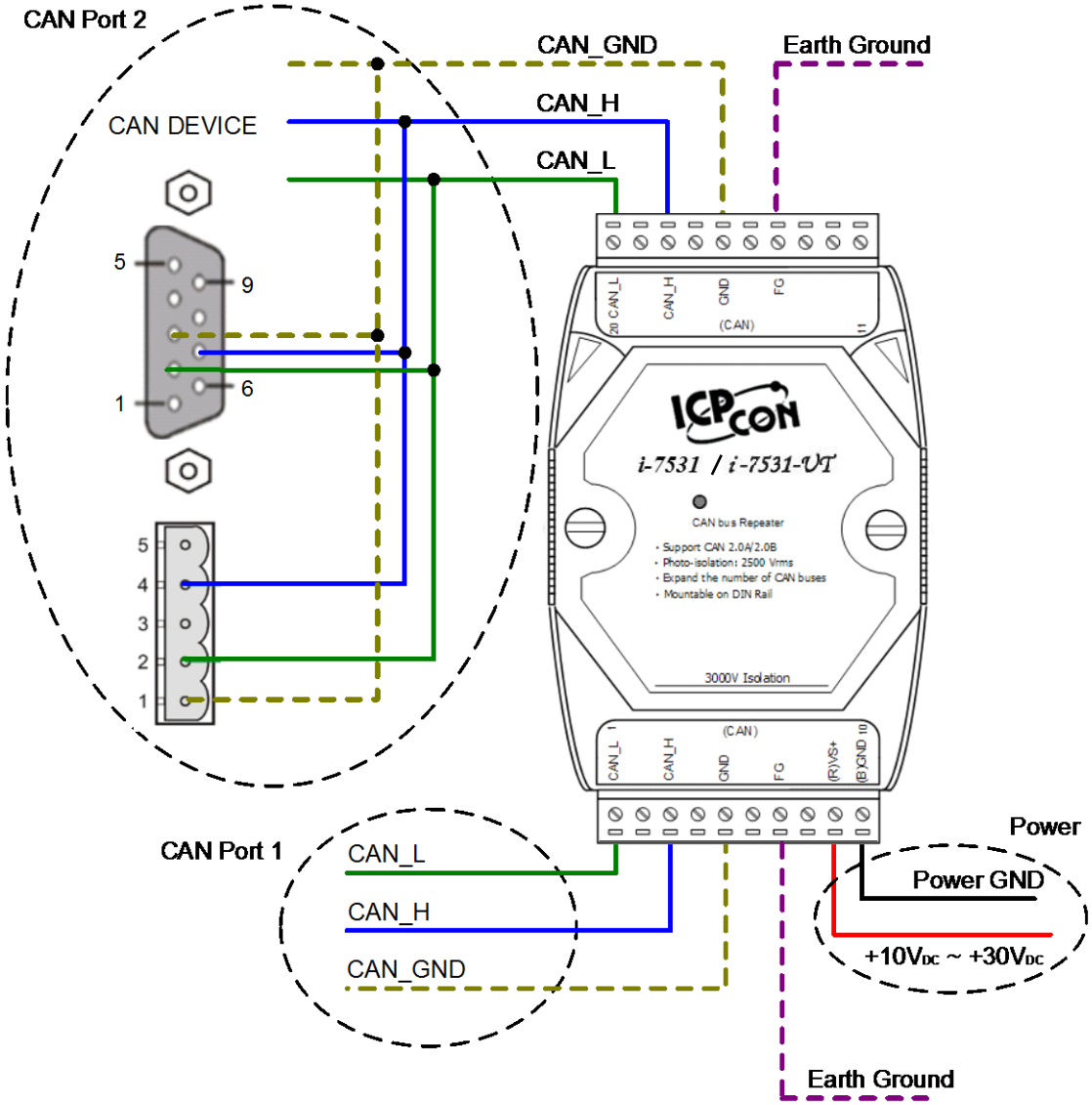
Disable
(Deactivate)

Enable
(Activate)

3 Configuration Installation

Step1: Modify JP2 and JP3 of I-7531 / I-7531-UT according to user's application.

Step2: Connect two different CAN buses using I-7531 / I-7531-UT as follow figure:



Note2: Roughly speaking, wiring of CAN_GND and FG can improve the capability of anti-interference of CAN bus system in harsh environment, but this is not necessary.

Note3: When users want to calculate the total bus line length, I-7531 / I-7531-UT need also be considered. According recommended specific line delay 5ns/m, one I-7531 / I-7531-UT (~200ns delay) should be considered as one 40m bus line.