Anti-Zapper Board

Installation Guide

International Currency Technologies Corp.

Use of Materials Limitations

Contents

1. Introduction

1-1. Overview

ICT Anti-Zapper Board transfers RS232(UART) communication interface to Pulse. ICT Anti-Zapper Board products are designed for use under standard conditions to protect ICT bill acceptors listed in this installation guide against the interference generated by certain EMP devices. Accordingly, ICT shall not be in any way responsible or liable for any damages, losses or expense arising from the use of Anti-Zapper Board under any special or extraordinary environments or conditions.

2. Specifications

Interface	Pulse
Power Source	DC 12V / DC 5V
Power Consumption	200mA
Support	ICT Bill Acceptor
Dimensions	55 x 85 x 25 mm
Environmental	Operating temperature: 0°C~ 60°C Storage temperature: -30°C~70°C Humidity: 30%~ 95%RH (no condensation)

3. Packing List

Main	Anti-Zapper Board
Accessory	Harnesses: Refer to 4-1 Anti-Zapper Board Installation Guide/ DIP Switch Setting Guide

4. Installation

4-1. Harness Application

4-1 TABLE.01

Model Name	Interface	Used Voltage	Usage	Harness	Page
A6, PA7, TAO-A I	Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to VMC)	WEL-RRSESD01	5
			Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)	WEL-RRSESD02	6
A6, PA7, TAO-A I	Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to VMC)	WEL-RRSESD19	13
			Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)	WEL-RRSESD02	6
A6, PA7, TAO-A I	Pulse	117V AC	Power & *Data Comm. (Anti-Zapper Board to VMC)	WEL-RRSESD03	7
		5V DC	Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)	WEL-RRSESD04	8
		117V AC	Power (Bill Acceptor to VMC)	WEL-RRSESD05	9
A6, PA7, TAO-A I	Pulse	117V AC	Power & *Data Comm. (Bill Acceptor to Anti-Zapper Board, Anti-Zapper Board to VMC)	WEL-RRSESD12	12
		5V DC	Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)	WEL-RRSESD04	8

4-1 TABLE.02

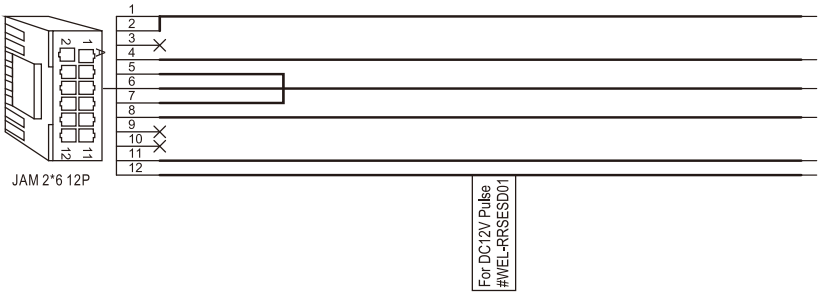
Model Name	Interface	Used Voltage	Usage	Harness	Page
P77, L70, L77F	Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to VMC)	WEL-RRSESD01	5
			Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)	WEL-RRSESD06	10
LX7	Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to VMC)	WEL-RRSESD01	5
			Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)	WEL-RRSESD07	11
LX7	Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to VMC)	WEL-RRSESD19	13
			Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)	WEL-RRSESD07	11
LX7-A	Pulse	117V DC	Power & *Data Comm. (Anti-Zapper Board to VMC)	WEL-RRSESD20	14
		5V DC	Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)	WEL-RRSESD04	8
LX7-A	Pulse	117V DC	Power & *Data Comm. (Anti-Zapper Board to VMC)	WEL-RRSESD03	7
		5V DC	Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)	WEL-RRSESD04	8
		117V DC	Power (Bill Acceptor to VMC)	WEL-RRSESD21	15

*Data Comm. : Data Communication.

4-1 FIG.01

Interface	Used Voltage	Usage
Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to VMC)

WEL-RRSESD01



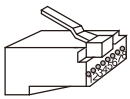
PIN 1- RED.....12DC(Power)
PIN 2- RED.....NEUTRAL_ENABLE
PIN 4- YELLOW.....INHINIT+
PIN 5- WHITE.....HOT_ENABLE
PIN 6- GREEN.....INHINIT-
PIN 7- WHITE.....GND(Power)
PIN 8- BROWN.....GND(Power)
PIN 11- BLUE.....CREDIT_RELAY(N.O)
PIN 12- PURPLE.....CREDIT_RELAY(Common)

4-1 FIG.02

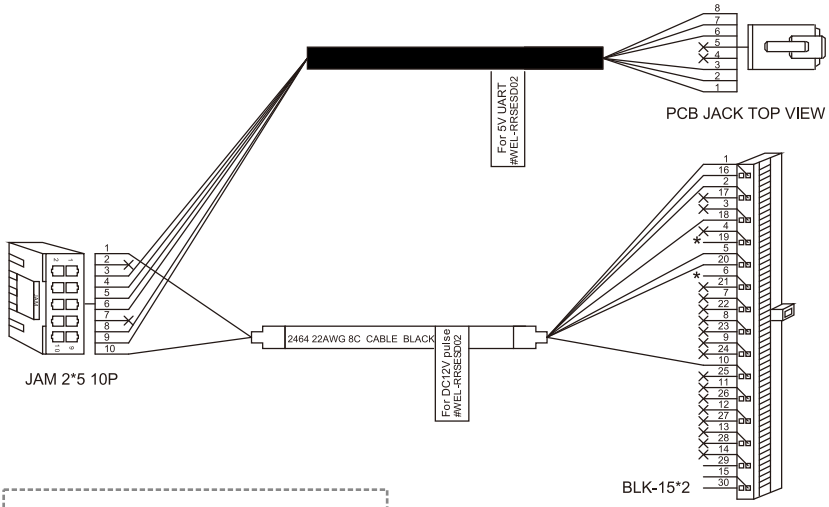
Interface	Used Voltage	Usage
Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)

WEL-RRSESD02

PIN 8- WHITE.....RX
PIN 7- BLACK.....TX
PIN 6- RED.....VCC
PIN 3- GREEN.....NC.
PIN 2- YELLOW.....NC.
PIN 1- BLUE.....GND



PCB JACK VIEW



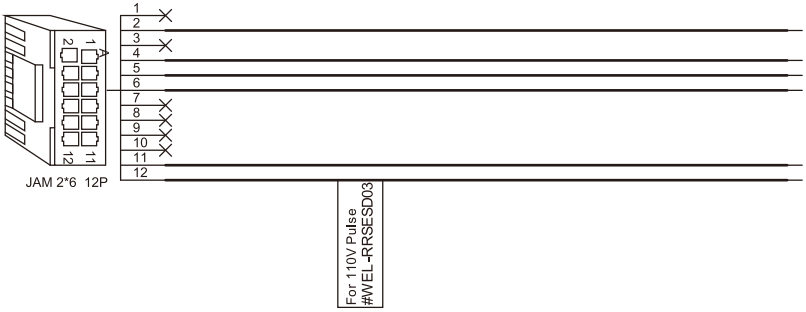
PIN 1- WHITE.....12DC(Power)
PIN 3- GREEN.....NC.
PIN 4- YELLOW.....NC.
PIN 5- RED.....VCC
PIN 6- BLACK.....TX
PIN 8- WHITE.....RX
PIN 9- BLUE.....GND
PIN 10- BROWN.....GND(Power)

PIN 20- GREEN
PIN 18- BLACK
PIN 16- BLUE
PIN 10- BROWN.....GND(Power)
PIN 5- YELLOW
PIN 2- WHITE.....12DC(Power)
PIN 1- PURPLE

4-1 FIG.03

Interface	Used Voltage	Usage
Pulse	117V AC	*Data Comm. (Anti-Zapper Board to VMC)

WEL-RRSESD03



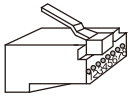
PIN 2- RED.....NEUTRAL_ENABLE
PIN 4- BLACK.....INHINIT+
PIN 5- BROWN.....HOT_ENABLE
PIN 6- YELLOW.....INHINIT-
PIN 11- BLUE.....CREDIT_RELAY(N.O)
PIN 12- PURPLE.....CREDIT_RELAY(Common)

4-1 FIG.04

Interface	Used Voltage	Usage
Pulse	5V DC	Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)

WEL-RRSESD04

PIN 8- WHITE.....RX
PIN 7- BLACK.....TX
PIN 6- RED.....VCC
PIN 3- GREEN.....NC.
PIN 2- YELLOW.....NC.
PIN 1- BLUE.....GND



PCB JACK VIEW

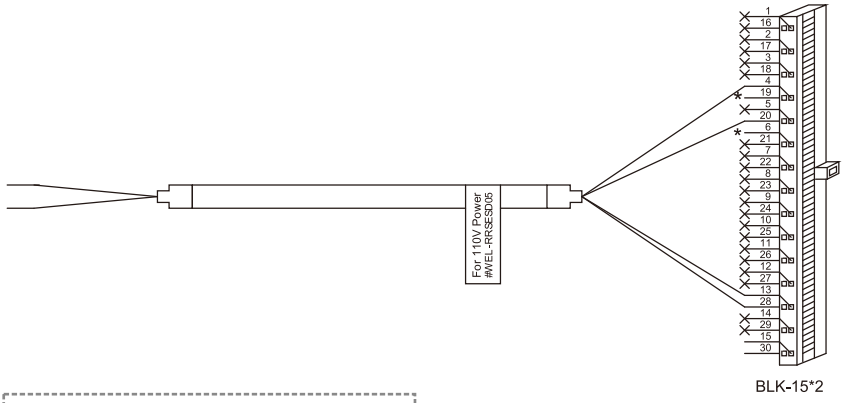
PIN 3- GREEN.....NC.
PIN 4- YELLOW.....NC.
PIN 5- RED.....VCC
PIN 6- BLACK.....TX
PIN 8- WHITE.....RX
PIN 9- BLUE.....GND

4-1 FIG.05

Interface	Used Voltage	Usage
Pulse	117V AC	Power (Bill Acceptor to VMC)

WEL-RRSESD05

PIN 4- WHITE.....117V AC REUTRAL(Power)
PIN 13- RED.....NC.
PIN 20- BLACK.....117V AC HOT(Power)
PIN 28- YELLOW.....NC.



BLK-15*2

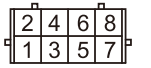
WHITE.....117V AC REUTRAL(Power)
BLACK.....117V AC HOT(Power)

4-1 FIG.06

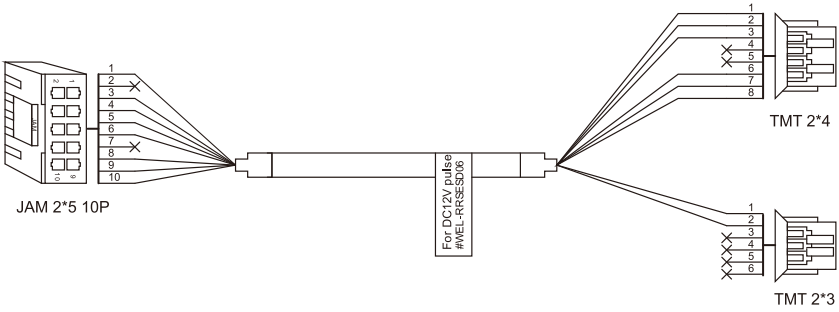
Interface	Used Voltage	Usage
Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)

WEL-RRSESD06

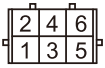
PIN 1- BLUE.....GND
PIN 2- YELLOW.....NC.
PIN 3- GREEN.....NC.
PIN 6- RED.....VCC
PIN 7- BLACK.....TX
PIN 8- PURPLE.....RX



TMT 2*4 BACK VIEW



PIN 1- WHITE.....12DC(Power)
PIN 3- GREEN.....NC.
PIN 4- YELLOW.....NC.
PIN 5- RED.....VCC
PIN 6- BLACK.....TX
PIN 8- PURPLE.....RX
PIN 9- BLUE.....GND
PIN 10- BROWN.....GND(Power)



TMT 2*3 BACK VIEW

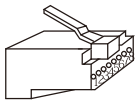
PIN 1- WHITE.....12DC(Power)
PIN 2- BROWN.....GND(Power)

4-1 FIG.07

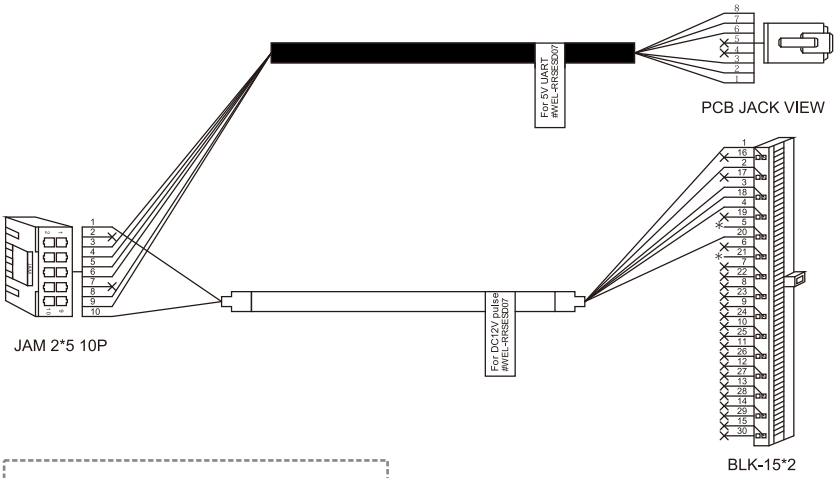
Interface	Used Voltage	Usage
Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to Bill Acceptor)

WEL-RRSESD07

PIN 8- WHITE.....RX
PIN 7- BLACK.....TX
PIN 6- RED.....VCC
PIN 3- GREEN.....NC.
PIN 2- YELLOW.....NC.
PIN 1- BLUE.....GND



PCB JACK TOP VIEW



PCB JACK VIEW

PIN 1- WHITE.....12DC(Power)
PIN 3- GREEN.....NC.
PIN 4- YELLOW.....NC.
PIN 5- RED.....VCC
PIN 6- BLACK.....TX
PIN 8- WHITE.....RX
PIN 9- BLUE.....GND
PIN 10- BROWN.....GND(Power)

PIN 1- PURPLE.....NC.
PIN 2- BLUE.....NC.
PIN 3- WHITE.....12DC(Power)
PIN 4- YELLOW.....NC.
PIN 18- GREEN.....NC.
PIN 20- BROWN.....GND(Power)

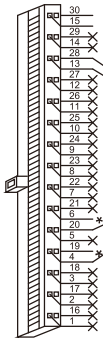
4-1 FIG.08

Interface	Used Voltage	Usage
Pulse	117V AC	Power & *Data Comm. (Bill Acceptor to Anti-Zapper Board, Anti-Zapper Board to VMC)

WEL-RRSESD12

PIN 1- YELLOW.....INHIBIT-
PIN 2- RED.....NEUTRAL_ENABLE
PIN 3- BROWN.....HOT_ENABLE
PIN 4- BLACK.....INHINIT+
PIN 6- WHITE.....117VAC REUTRAL(Power)
PIN 7- BLUE.....CREDIT_RELAY(N.O)
PIN 8- PURPLE.....CREDIT_RELAY(Common)

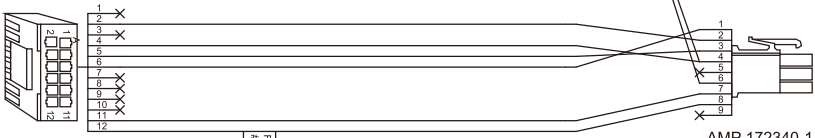
AMP 172340-1
BACK VIEW



BLK-15*2

For 110V Power
#WEL-RRSESD12

PIN 4- WHITE.....117VAC REUTRAL(Power)
PIN 13- RED.....NC.
PIN 20- BLACK.....117VAC HOT(Power)
PIN 28- YELLOW.....NC.



JAM 2*6 12P

AMP 172340-1

For 110V Pulse
#WEL-RRSESD12

PIN 2- RED.....NEUTRAL_ENABLE
PIN 4- BLACK.....INHINIT+
PIN 5- BROWN.....HOT_ENABLE
PIN 6- YELLOW.....INHIBIT-
PIN 11- BLUE.....CREDIT_RELAY(N.O)
PIN 12- PURPLE.....CREDIT_RELAY(Common)

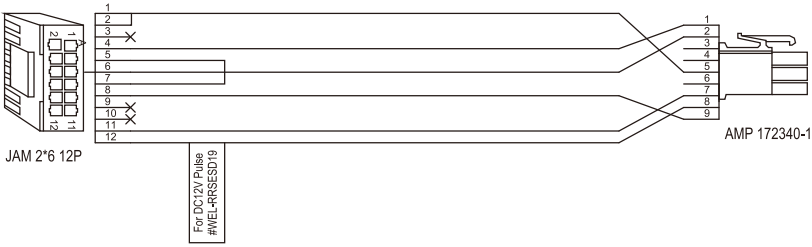
4-1 FIG.09

Interface	Used Voltage	Usage
Pulse	12V DC	Power & *Data Comm. (Anti-Zapper Board to VMC)

WEL-RRSESD19

AMP 172340-1
BACK VIEW

PIN 1- YELLOW.....INHINIT+
PIN 1- GREEN.....INHINIT-
PIN 5- RED.....12DC(Power)
PIN 7- BLUE.....CREDIT_RELAY(N.O)
PIN 8- PURPLE.....CREDIT_RELAY(Common)
PIN 9- BROWN.....GND(Power)



JAM 2*6 12P

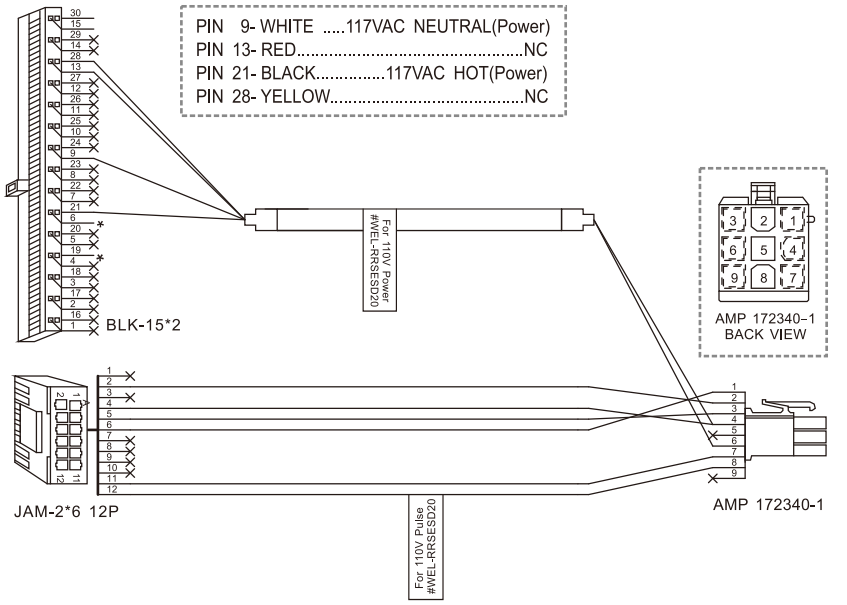
AMP 172340-1

PIN 1- RED.....12DC(Power)
PIN 2- RED.....NEUTRAL_ENABLE
PIN 4- YELLOW.....INHINIT+
PIN 5- WHITE.....HOT_ENABLE
PIN 6- GREEN.....INHIBIT-
PIN 7- WHITE.....GND(Power)
PIN 8- BROWN.....GND(Power)
PIN 11- BLUE.....CREDIT_RELAY(N.O)
PIN 12- PURPLE.....CREDIT_RELAY(Common)

4-1 FIG.10

Interface	Used Voltage	Usage
Pulse	117V AC	Power & *Data Comm.

WEL-RRSESD20



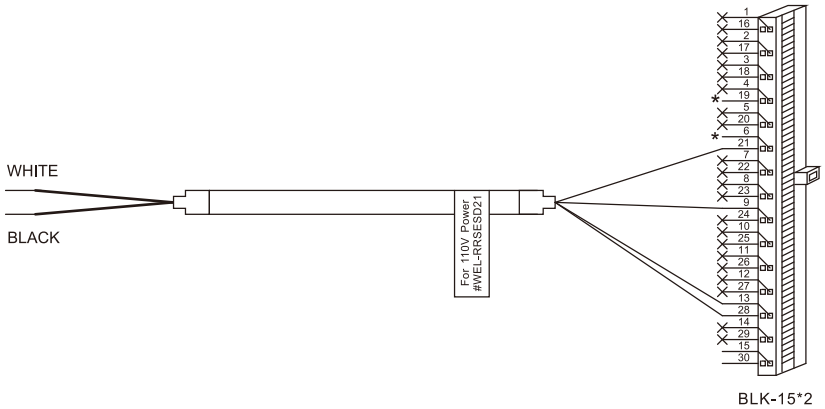
PIN 2- RED .....NEUTRAL-ENABLE
PIN 4- BLACK.....INHIBIT+
PIN 5- BROWN.....HOT-ENABLE
PIN 6- YELLOW.....INHIBIT-
PIN 11- BLUE.....CREDIT RELAY (N. O)
PIN 12- PURPLE.....CREDIT RELAY (Common)

PIN 1- YELLOW.....INHIBIT-
PIN 2- RED .....NEUTRAL-ENABLE
PIN 3- BROWN.....HOT-ENABLE
PIN 4- BLACK.....INHIBIT+
PIN 6- WHITE .....117VAC NEUTRAL (Power)
PIN 7- BLUE.....CREDIT RELAY (N. O)
PIN 8- PURPLE.....CREDIT RELAY (Common)

4-1 FIG.11

Interface	Used Voltage	Usage
Pulse(For LX7-A)	117V AC	Power (Bill Acceptor to VMC)

WEL-RRSESD21



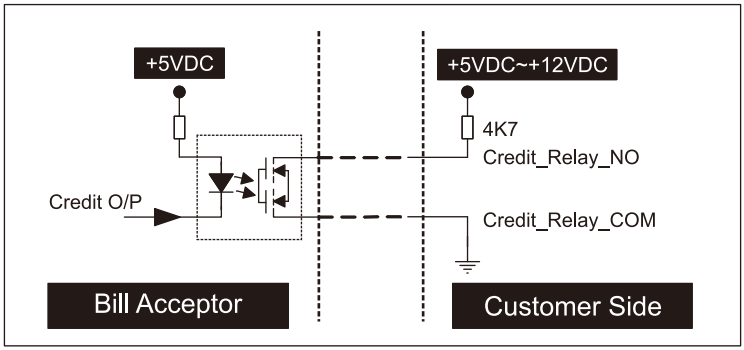
WHITE.....117VAC REUTRAL(Power)
BLACK.....117VAC HOT(Power)

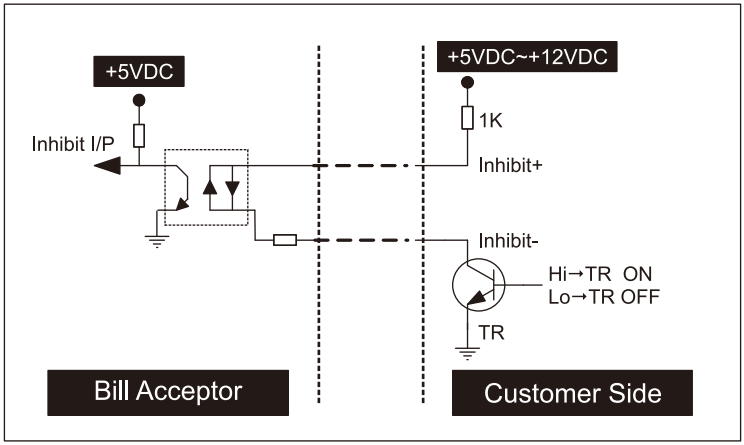
PIN 9- WHITE.....117VAC NEUTRAL(Power)
PIN 13- RED.....NC
PIN 21- BLACK.....117VAC HOT(Power)
PIN 28- YELLOW.....NC

4-1-1. I/O Circuit

Pulse Interface.

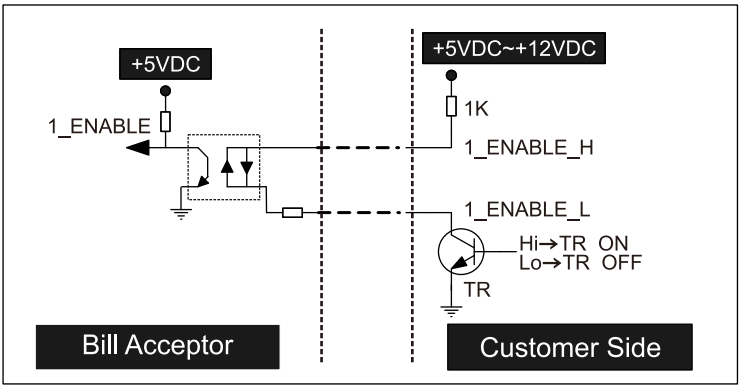
4-1-1 FIG.01





5V Enable Interface

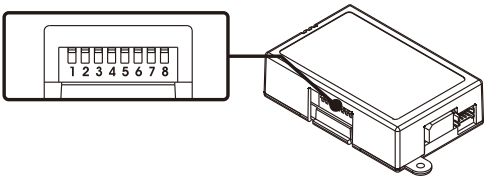
4-1-1 FIG. 02



4-2. DIP Switch Setting

There's a serial DIP switches which is located on the side of Anti-Zapper Board. According to different currencies or interfaces which are used by users, DIP switch settings could be varied to fit users' need.

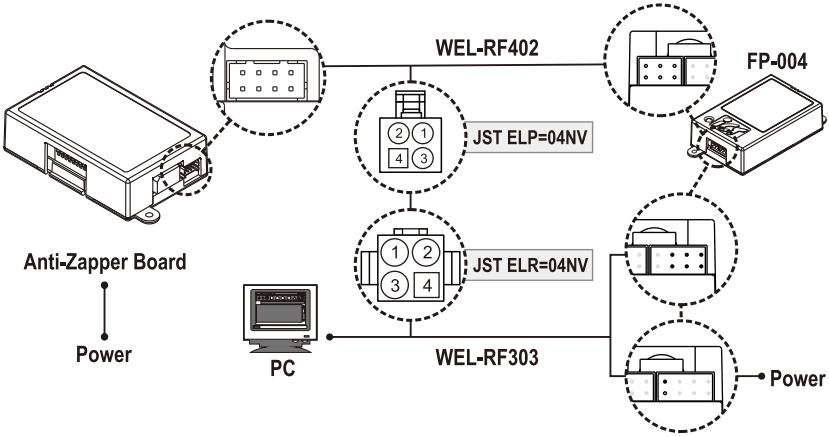
Please refer to "Anti-Zapper Board DIP Switch Setting" Guide in the package for more detail.



4-2 FIG.01

4-3. Software Download and Upgrade

To download and upgrade the software to Anti-Zapper Board, the programmer (FP-004) is needed. Please contact ICT to purchase FP-004 and refer to FP-004 user guide for software download and upgrade information.



Power must be applied to Anti-Zapper Board **after** connecting.

ICT Taiwan
International Currency Technologies Corporation
No.28, Ln. 15, Sec. 6, Minquan E. Rd., Neihu Dist., Taipei City 114, Taiwan
sales@ictgroup.com.tw (For Sales)
fae@ictgroup.com.tw (For Customer Service)
Website: www.ictgroup.com.tw

V. 8.0 Part Number: H6810G-R