A6-USD4 has one bank of 8 switches
AND one bank of 4 switches

ICT

A6/V6 Series

Bill Validator

Installation Guide

International Currency Technologies Corp.

NOTE: Fun Stop Photos does not give change.
Accepting $1 and $5 bills, only, is recommended.

◯ = Fun Stop Photos default setting

	FUNCTION	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	SW1	SW2	SW3	SW4
	Reject US$ 1	ON											
★	Accept US$ 1	(OFF)											
	Reject US$ 5		ON										
★	Accept US$ 5		(OFF)										
	Reject US$ 10			ON									
★	Accept US$ 10			(OFF)									
	Reject US$ 20				ON								
★	Accept US$ 20				(OFF)								
	Reserved					ON							
★	Reserved					(OFF)							
	High Acceptance						ON						
★	High Security						(OFF)						
	Harness Disable							(ON)					
★	Harness Enable							OFF					
	Inhibit Active High								(ON)				
★	Inhibit Active Low								OFF				
★	1 pulse / one dollar									(OFF)	(OFF)		
	2 pulse / one dollar									ON	OFF		
	4 pulse / one dollar									OFF	ON		
	20 pulse / one dollar									ON	ON		
★	Pulse Speed	50ms on / 50ms off										(OFF)	(OFF)
		60ms on / 300ms off										ON	OFF
		30ms on / 50ms off										OFF	ON
		150ms on / 150ms off										ON	ON

Note : (1) Reset the bill acceptor after setting the dip switch.
(2) SW7 and SW8 of the 8-switch DIP and the 4-switch DIP are for pulse protocol only.

Contents

1. Introduction 1
1-1. Overview 1
1-2. Features 1
2. Specifications 1
Common 1
Electrical 1
Mechanical 1
3. Packing List 2
4. Dimension 2
5. Installation 3
5-1. Harness Application 3
5-1-1. I/O Circuit 14
5-2. DIP Switch Setting 17
5-3. Software Download and Upgrade 17
6. Maintenance 18
7. Trouble Shooting 19

1. Introduction

1-1. Overview

A6/V6 Series is a bill acceptor which features not only high-security module with bill box but also outstanding recognition, acceptance rate up to 96% or even greater.

1-2. Features

- Four way bill insertion acceptance.
- Auto-calibrating.
- Numerous interfaces available.
- Easily Install & Maintain.

2. Specifications

Common

Acceptance Rate

96% or greater

Identification Time

Approx. 3 seconds
(From bill insert to stack.)

Electrical

Power Source

A6: 12V DC± 5%
117V AC±10%

V6: 34V DC± 5%

Power Consumption

50 watts maximum

Mechanical

Outline Dimension

See Page.2

Weight

Approx. 2kg (shipping)

Interface

A6: STD Pulse, 5V Enable
ICT Protocol

V6: MDB

Bill Insertion

Four-way acceptance

Operation Environment

Operation Temperature: 0°C~55°C
Storage Temperature: -30°C~70°C
Humidity: 30%~85RH
(no condensation)

Bill Capacity

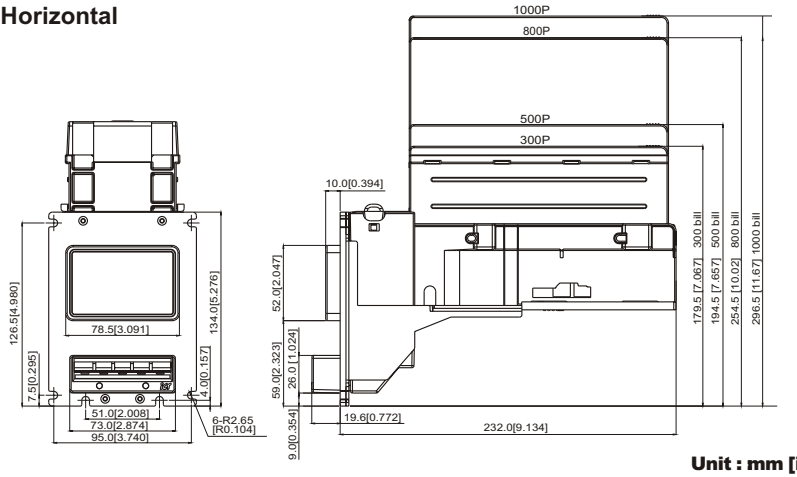
Approx. 300 bills (200~ 300)
500 bills (300~ 500)
800 bills (750~ 850)
1000 bills (1000~1140)

3. Packing List

Main	Accessory
Bill Acceptor	Harnesses: see Page.3 A6/V6 Installation Guide A6/V6 DIP Switch Setting Guide

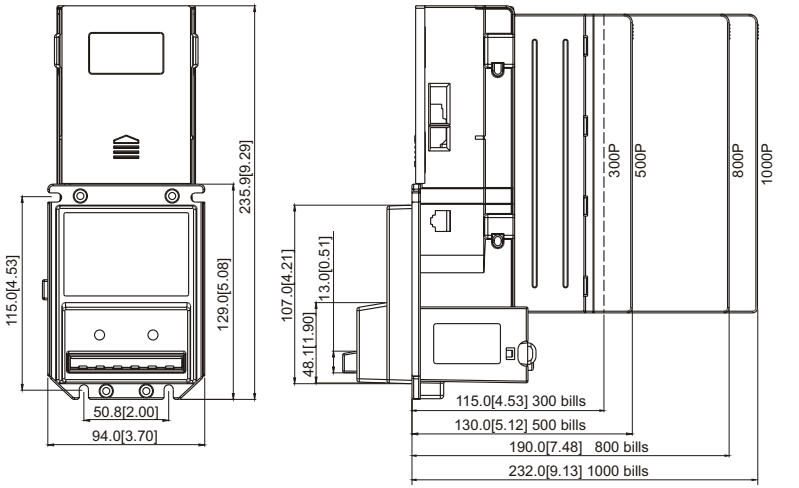
4. Dimension

♦**Horizontal**



Unit : mm [inch]

♦**Vertical**



Unit : mm [inch]

5. Installation

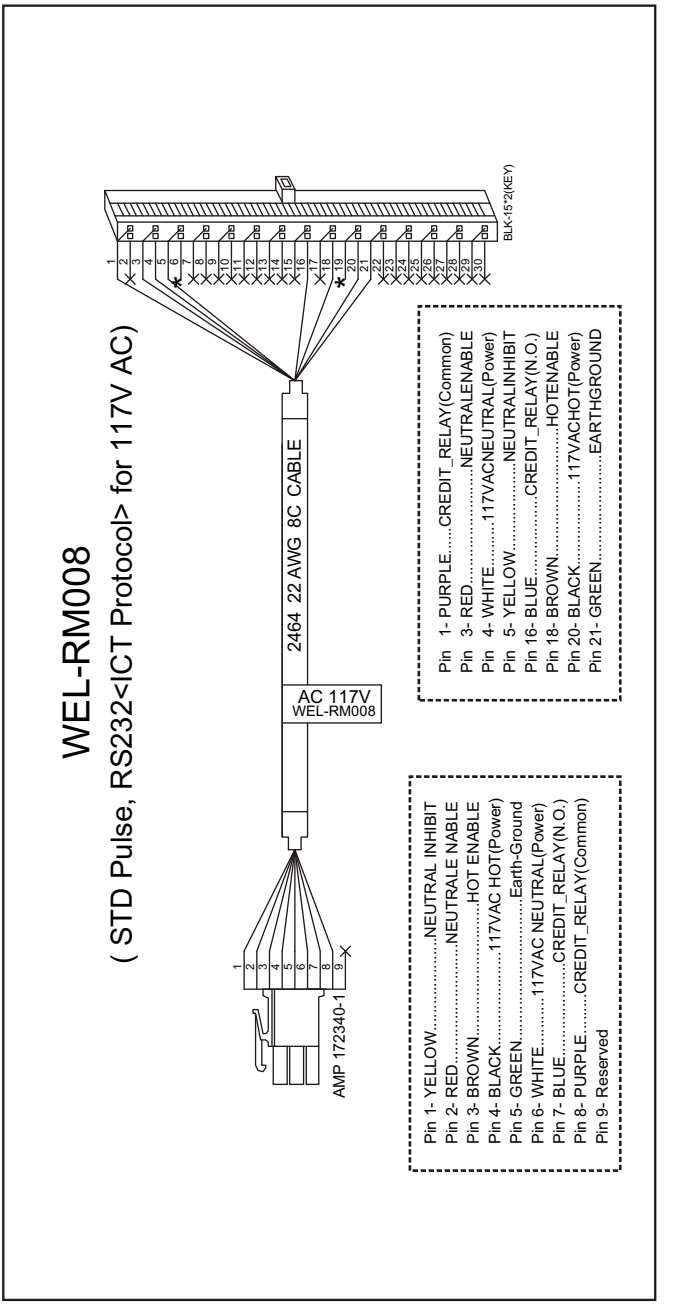
5-1. Harness Application

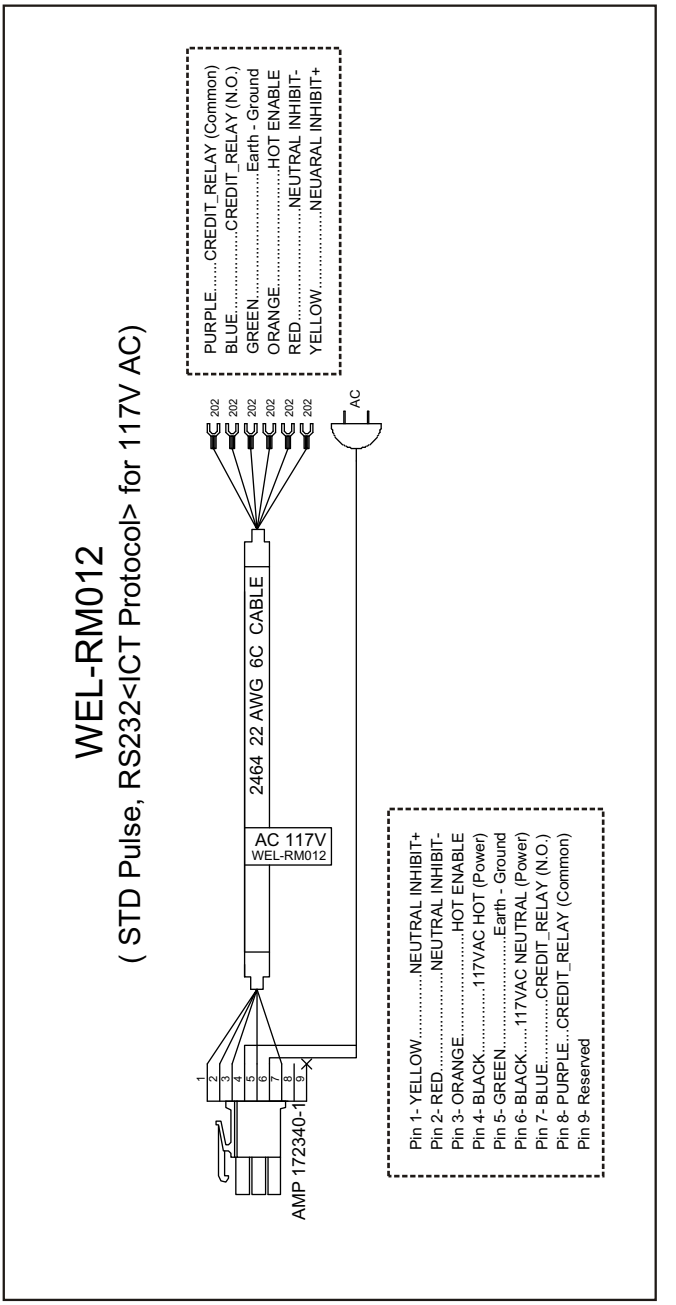
Bill Acceptor:

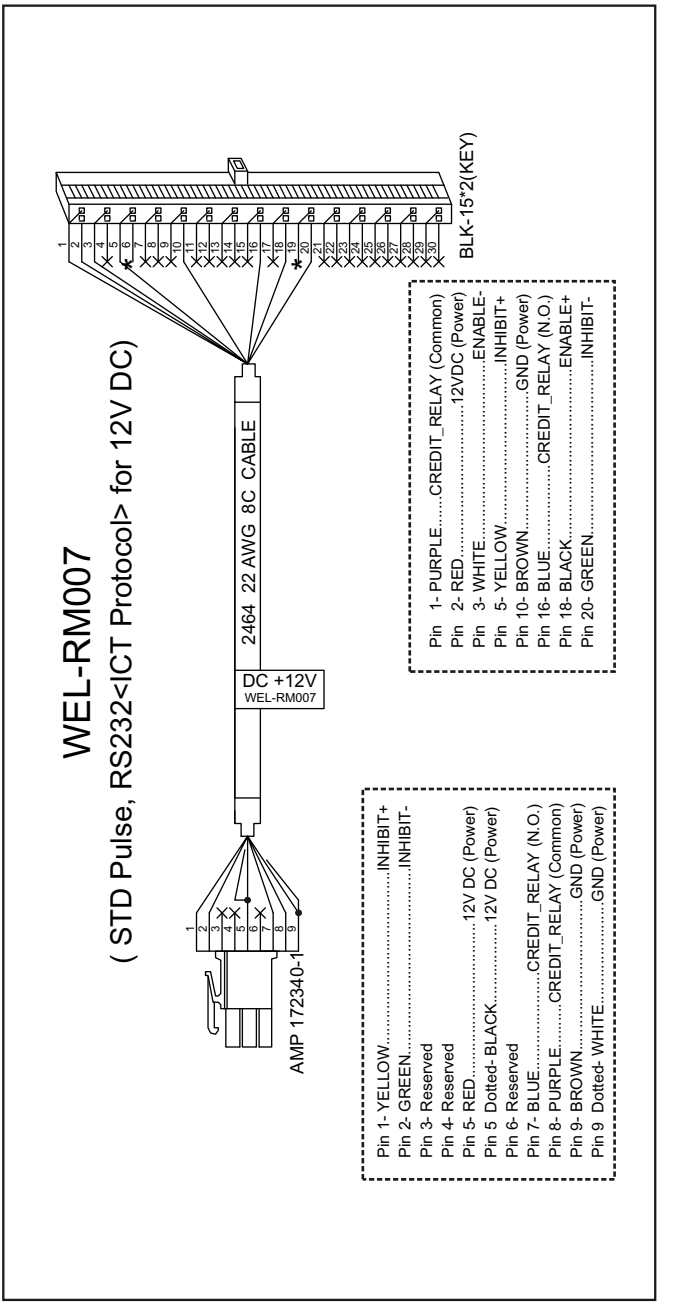
Mode	Interface	Used Voltage	Cable No.	Page
A6	STD Pulse	117V AC	WEL-RM008	4
			WEL-RM012	5
		12V DC	WEL-RM007	6
			CU-R961-1	7
	5V ENABLE	117V AC	WEL-RM017	8
			WEL-RM018	9
	RS232 for ICT Protocol	12V DC	WEL-RM007	6
			CU-R961-1	7
			WEL-RV706	10
		117V AC	WEL-RM008	4
			WEL-RM012	5
			WEL-RV706	10
V6	MDB	34V DC	WEL-RM006	11

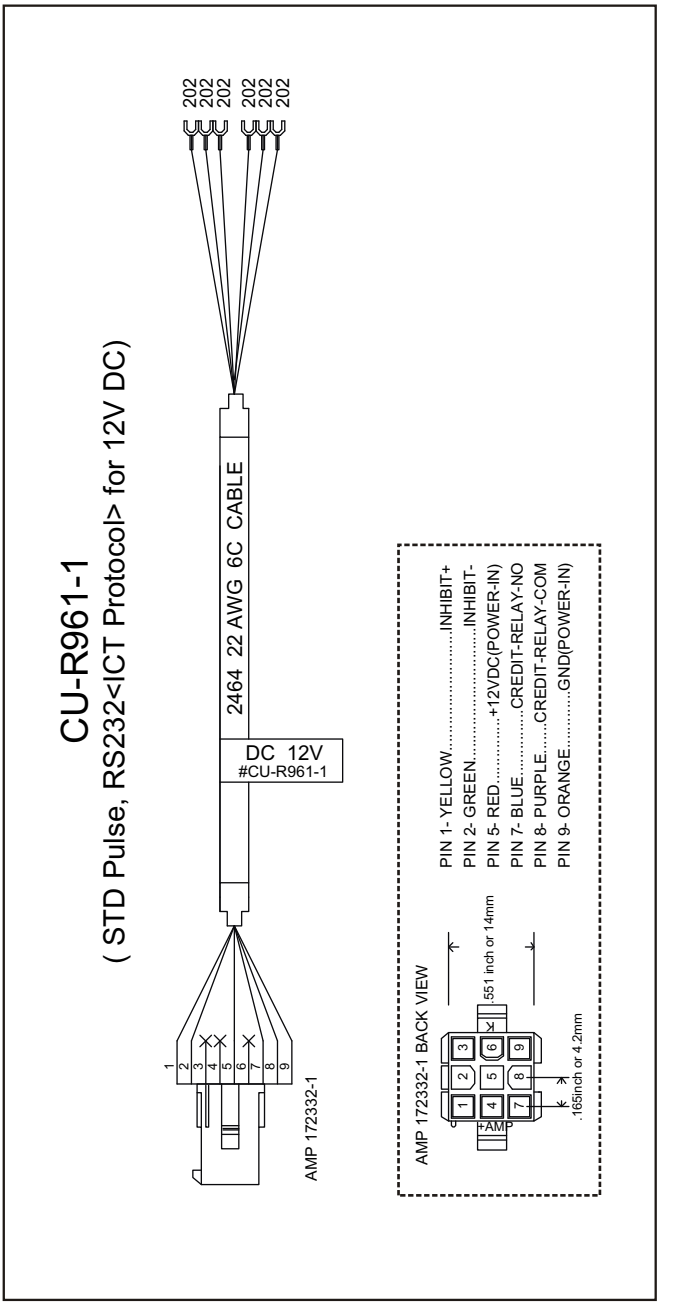
Programmer (Refer to 5-3):

Model	Function	Harness	Page
FP-001	Download & Upgrade	WEL-RM009	12
		WEL-R087	13


WEL-RM008
(STD Pulse, RS232<ICT Protocol> for 117V AC)
BLK-15*2(KEY)
2464 22 AWG 8C CABLE
AC 117V
WEL-RM008
AMP 172340-1
Pin 1- YELLOW.....NEUTRAL INHIBIT
Pin 2- RED.....NEUTRALE NABLE
Pin 3- BROWN.....HOT ENABLE
Pin 4- BLACK.....117VAC HOT(Power)
Pin 5- GREEN.....Earth-Ground
Pin 6- WHITE.....117VAC NEUTRAL(Power)
Pin 7- BLUE.....CREDIT_RELAY(N.O.)
Pin 8- PURPLE.....CREDIT_RELAY(Common)
Pin 9- Reserved
Pin 1- PURPLE.....CREDIT_RELAY(Common)
Pin 3- RED.....NEUTRALENABLE
Pin 4- WHITE.....117VACNEUTRAL(Power)
Pin 5- YELLOW.....NEUTRALINHIBIT
Pin 16- BLUE.....CREDIT_RELAY(N.O.)
Pin 18- BROWN.....HOTENABLE
Pin 20- BLACK.....117VACHOT(Power)
Pin 21- GREEN.....EARTHGROUND

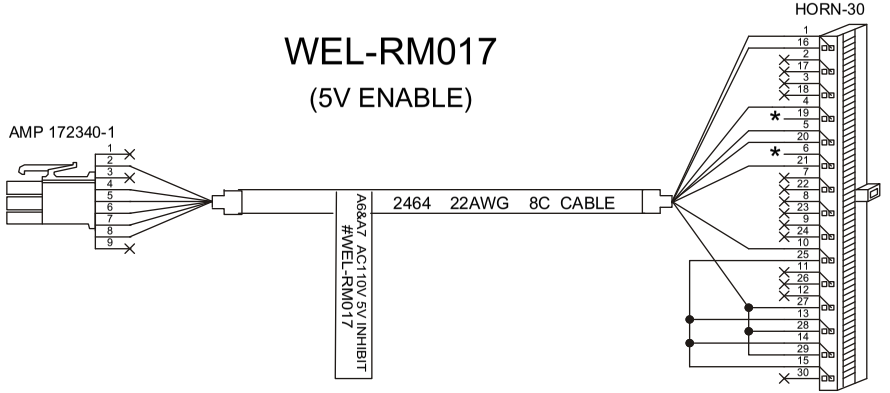

WEL-RM012
(STD Pulse, RS232<ICT Protocol> for 117V AC)
PURPLE.....CREDIT_RELAY (Common)
BLUE.....CREDIT_RELAY (N.O.)
GREEN.....Earth - Ground
ORANGE.....HOT ENABLE
RED.....NEUTRAL INHIBIT-
YELLOW.....NEUARAL INHIBIT+
202
AC
AC 117V
WEL-RM012
2464 22 AWG 6C CABLE
AMP 172340-1
Pin 1- YELLOW.....NEUTRAL INHIBIT+
Pin 2- RED.....NEUTRAL INHIBIT-
Pin 3- ORANGE.....HOT ENABLE
Pin 4- BLACK.....117VAC HOT (Power)
Pin 5- GREEN.....Earth - Ground
Pin 6- BLACK.....117VAC NEUTRAL (Power)
Pin 7- BLUE.....CREDIT_RELAY (N.O.)
Pin 8- PURPLE....CREDIT_RELAY (Common)
Pin 9- Reserved

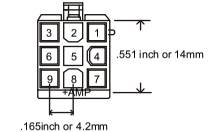

WEL-RM007
(STD Pulse, RS232<ICT Protocol> for 12V DC)
2464 22 AWG 8C CABLE
DC +12V
WEL-RM007
AMP 172340-1
BLK-15*2(KEY)
Pin 1- YELLOW.....INHIBIT+
Pin 2- GREEN.....INHIBIT-
Pin 3- Reserved
Pin 4- Reserved
Pin 5- RED.....12V DC (Power)
Pin 5 Dotted- BLACK.....12V DC (Power)
Pin 6- Reserved
Pin 7- BLUE.....CREDIT_RELAY (N.O.)
Pin 8- PURPLE.....CREDIT_RELAY (Common)
Pin 9- BROWN.....GND (Power)
Pin 9 Dotted- WHITE.....GND (Power)
Pin 1- PURPLE.....CREDIT_RELAY (Common)
Pin 2- RED.....12VDC (Power)
Pin 3- WHITE.....ENABLE-
Pin 5- YELLOW.....INHIBIT+
Pin 10- BROWN.....GND (Power)
Pin 16- BLUE.....CREDIT_RELAY (N.O.)
Pin 18- BLACK.....ENABLE+
Pin 20- GREEN.....INHIBIT-


CU-R961-1
(STD Pulse, RS232<ICT Protocol> for 12V DC)
202
202
202
202
202
2464 22 AWG 6C CABLE
DC 12V
#CU-R961-1
AMP 172332-1
AMP 172332-1 BACK VIEW
.551 inch or 14mm
.165inch or 4.2mm
PIN 1- YELLOW.....INHIBIT+
PIN 2- GREEN.....INHIBIT-
PIN 5- RED.....+12VDC(POWER-IN)
PIN 7- BLUE.....CREDIT-RELAY-NO
PIN 8- PURPLE.....CREDIT-RELAY-COM
PIN 9- ORANGE.....GND(POWER-IN)

WEL-RM017

(5V ENABLE)

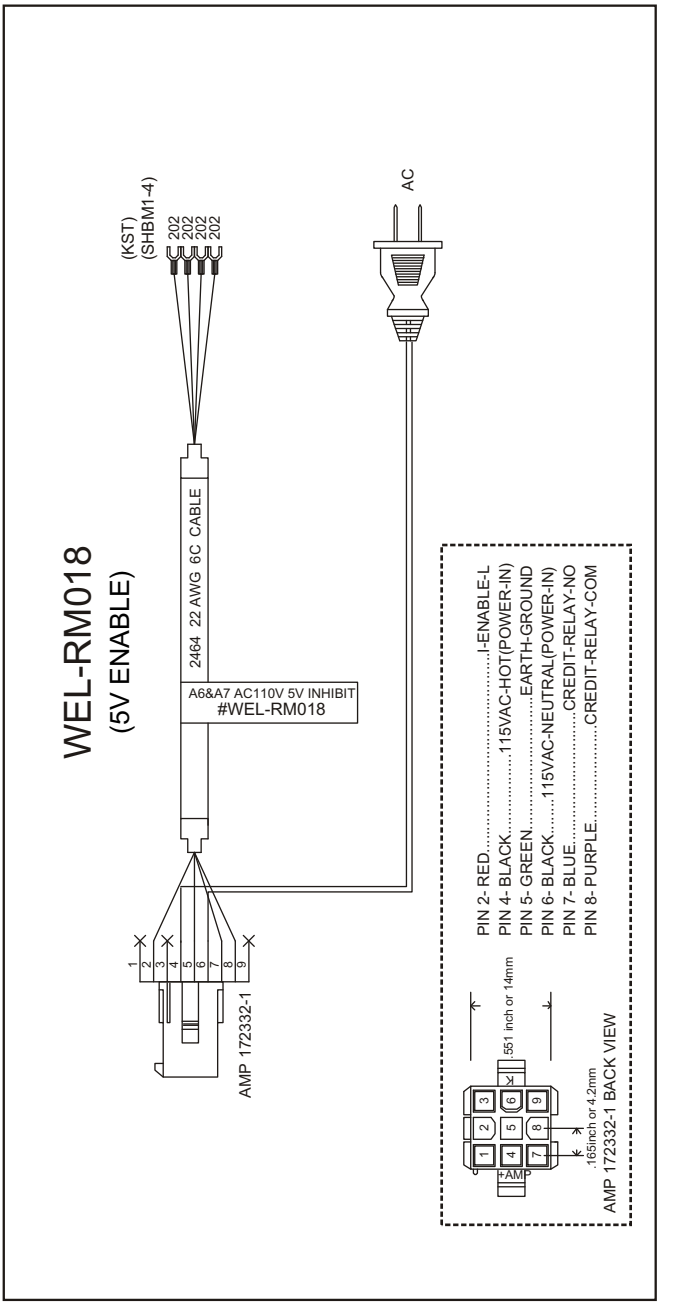


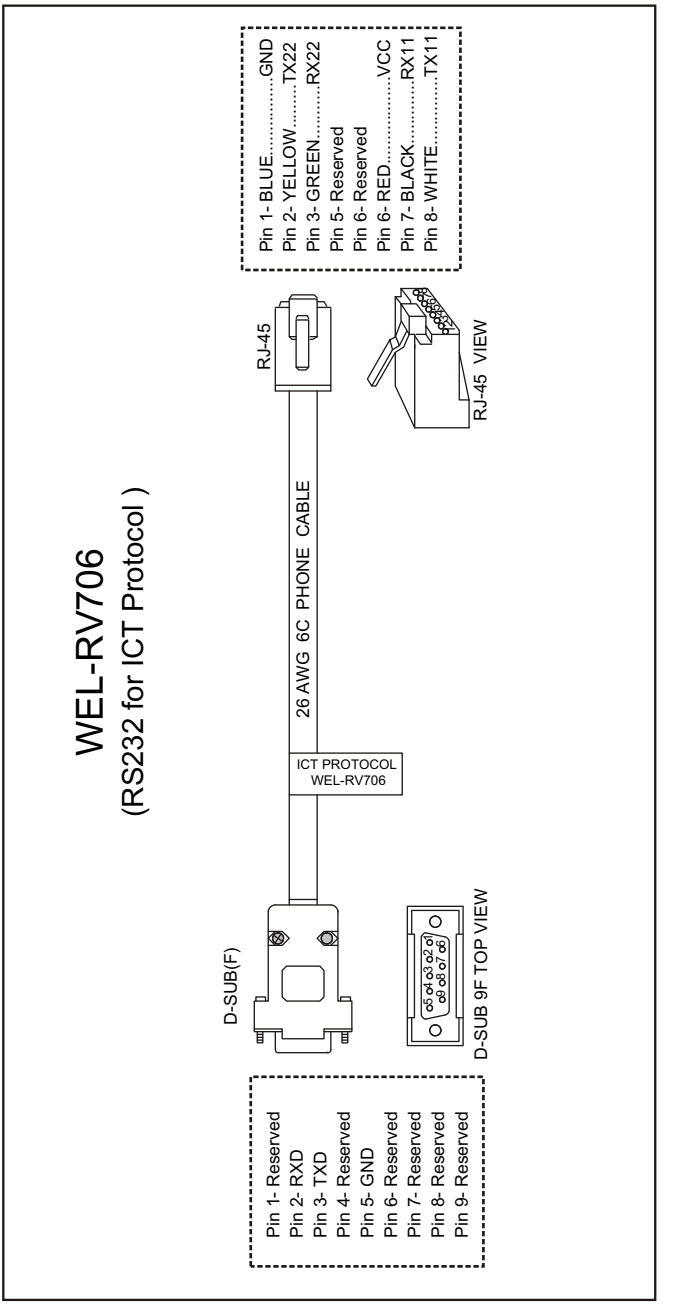


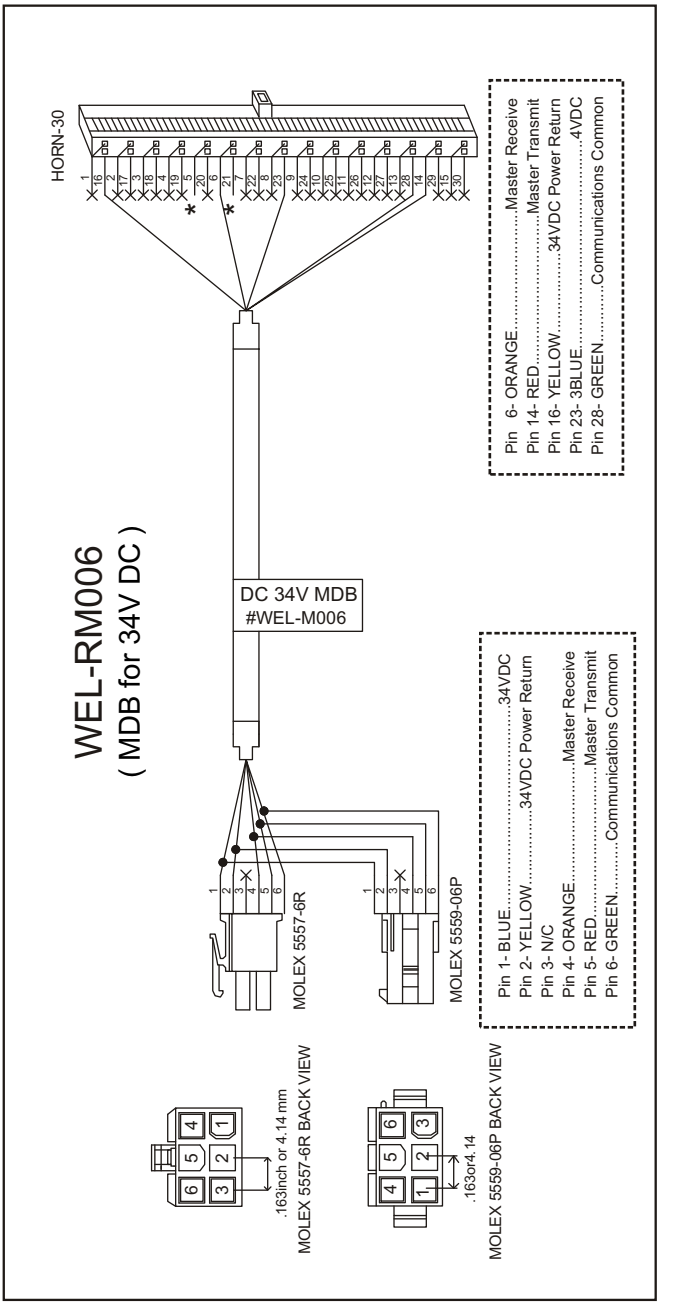
AMP 172340-1 BACK VIEW

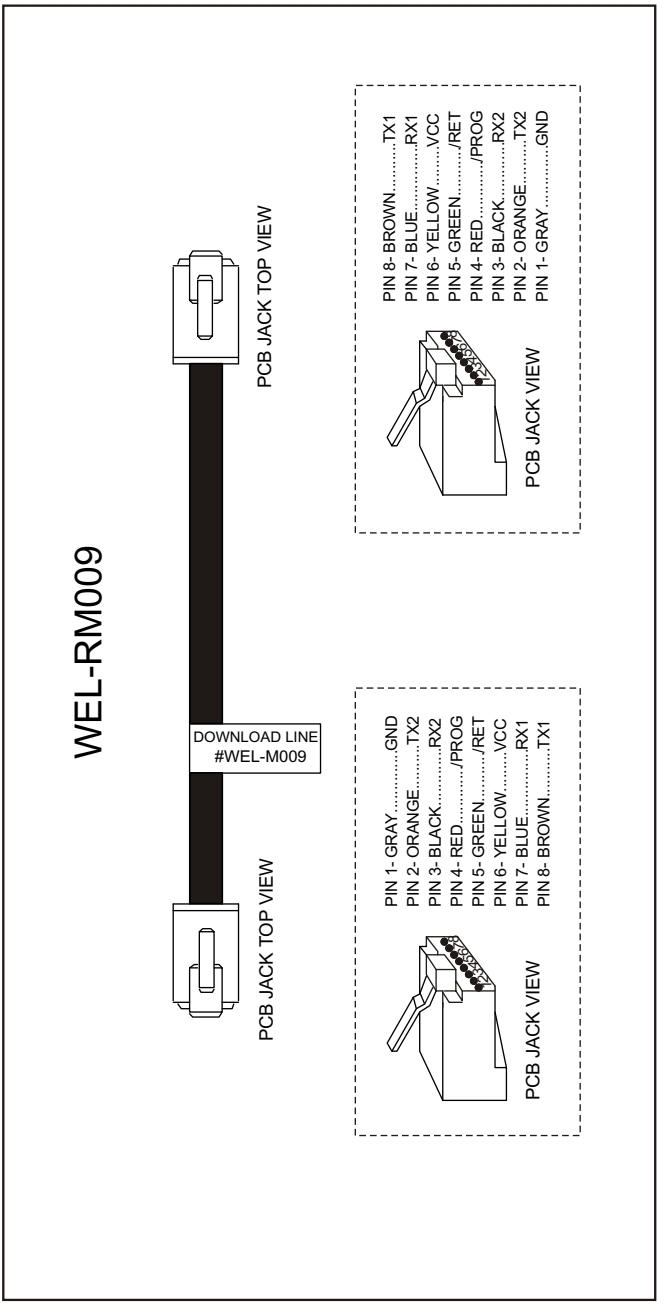
PIN 2- RED.....I-ENABLE-L
PIN 4- BLACK.....115VAC-HOT
PIN 5- GREEN.....EARTH-GROUND
PIN 6- WHITE & YELLOW.....115VAC-NEUTRAL
PIN 7- BLUE.....CREDIT-RELAY-NO
PIN 8- PURPLE & BROWN.....CREDIT-RELAY-COM

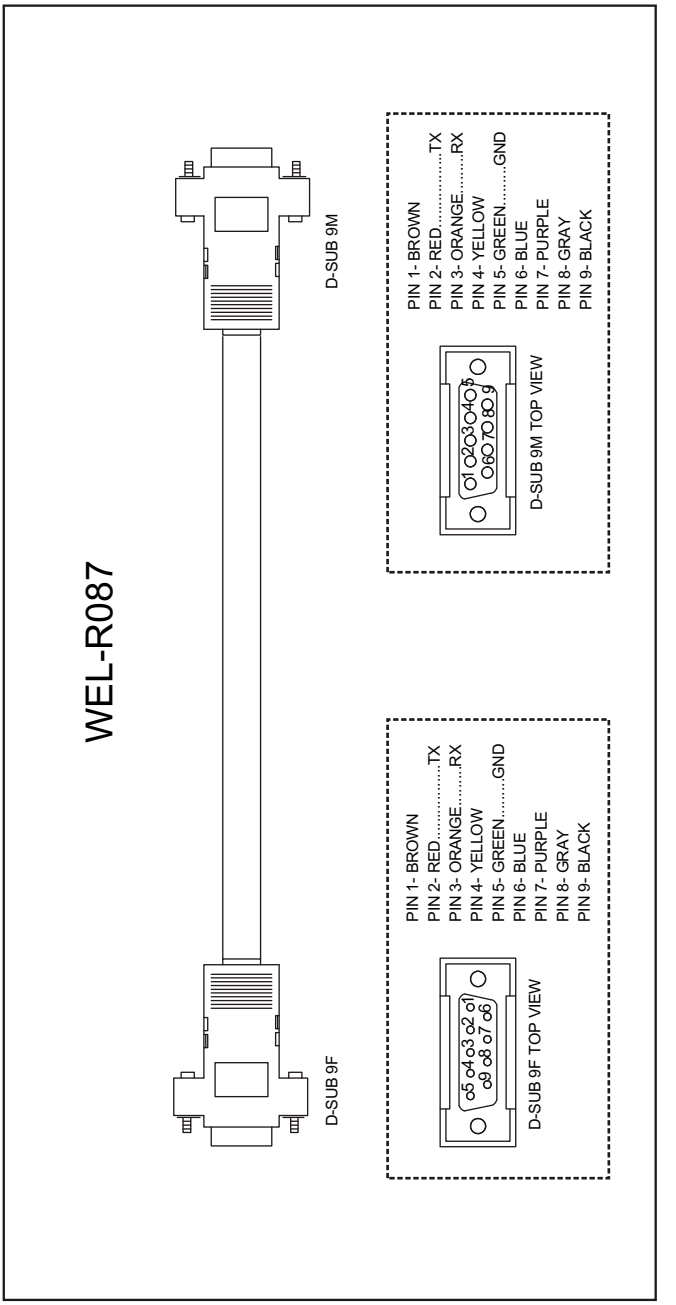
PIN 1- PURPLE.....CREDIT-RELAY-COM
PIN 4- WHITE.....115VAC-NEUTRAL(POWER IN)
PIN 5- YELLOW.....NEUTRAL-INHIBIT
PIN 10- BROWN.....GND
PIN 16- BLUE.....CREDIT-RELAY-NO
PIN 20- BLACK.....115VAC-HOT(POWER IN)
PIN 21- GREEN.....EARTH-GROUND
PIN 27.& 28. & 29- RED.....I-ENABLE-L
PIN 13. & 14. & 15. & 25- BLACK.....I-ENABLE-H


WEL-RM018
(5V ENABLE)
(KST)
(SHBM1-4)
202
202
202
202
AC
2464 22 AWG 6C CABLE
A6&A7 AC110V 5V INHIBIT
#WEL-RM018
1
2
3
4
5
6
7
8
9
AMP 172332-1
PIN 2- RED.....I-ENABLE-L
PIN 4- BLACK.....115VAC-HOT(POWER-IN)
PIN 5- GREEN.....EARTH-GROUND
PIN 6- BLACK.....115VAC-NEUTRAL(POWER-IN)
PIN 7- BLUE.....CREDIT-RELAY-NO
PIN 8- PURPLE.....CREDIT-RELAY-COM
.551 inch or 14mm
.165inch or 4.2mm
+AMP
AMP 172332-1 BACK VIEW


WEL-RV706
(RS232 for ICT Protocol)
Pin 1- BLUE.....GND
Pin 2- YELLOW.....TX22
Pin 3- GREEN.....RX22
Pin 5- Reserved
Pin 6- Reserved
Pin 6- RED.....VCC
Pin 7- BLACK.....RX11
Pin 8- WHITE.....TX11
RJ-45
RJ-45 VIEW
26 AWG 6C PHONE CABLE
ICT PROTOCOL
WEL-RV706
D-SUB(F)
D-SUB 9F TOP VIEW
Pin 1- Reserved
Pin 2- RXD
Pin 3- TXD
Pin 4- Reserved
Pin 5- GND
Pin 6- Reserved
Pin 7- Reserved
Pin 8- Reserved
Pin 9- Reserved

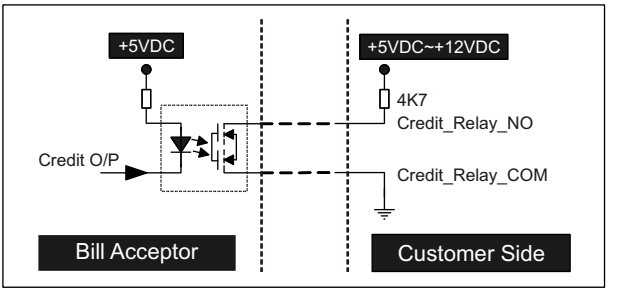

WEL-RM006
(MDB for 34V DC)
HORN-30
DC 34V MDB
#WEL-M006
MOLEX 5557-6R
MOLEX 5559-06P
Pin 6- ORANGE.....Master Receive
Pin 14- RED.....Master Transmit
Pin 16- YELLOW.....34VDC Power Return
Pin 23- 3BLUE.....4VDC
Pin 28- GREEN.....Communications Common
Pin 1- BLUE.....34VDC
Pin 2- YELLOW.....34VDC Power Return
Pin 3- N/C
Pin 4- ORANGE.....Master Receive
Pin 5- RED.....Master Transmit
Pin 6- GREEN.....Communications Common
.163inch or 4.14 mm
MOLEX 5557-6R BACK VIEW
.163or4.14
MOLEX 5559-06P BACK VIEW

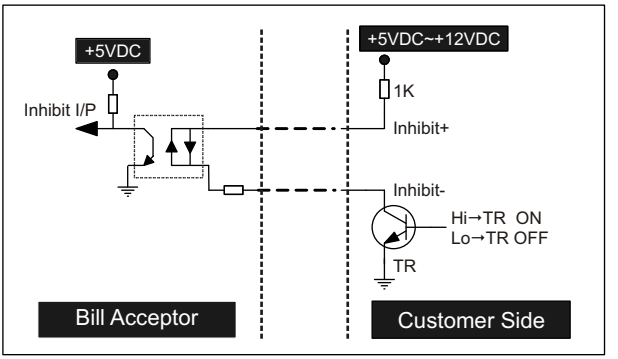

WEL-RM009
DOWNLOAD LINE
#WEL-M009
PCB JACK TOP VIEW
PCB JACK TOP VIEW
PCB JACK VIEW
PIN 1- GRAY.....GND
PIN 2- ORANGE.....TX2
PIN 3- BLACK.....RX2
PIN 4- RED.....PROG
PIN 5- GREEN.....RET
PIN 6- YELLOW.....VCC
PIN 7- BLUE.....RX1
PIN 8- BROWN.....TX1
PCB JACK VIEW
PIN 8- BROWN.....TX1
PIN 7- BLUE.....RX1
PIN 6- YELLOW.....VCC
PIN 5- GREEN.....RET
PIN 4- RED.....PROG
PIN 3- BLACK.....RX2
PIN 2- ORANGE.....TX2
PIN 1- GRAY.....GND


WEL-R087
D-SUB 9M
D-SUB 9F
PIN 1- BROWN
PIN 2- RED.....TX
PIN 3- ORANGE.....RX
PIN 4- YELLOW
PIN 5- GREEN.....GND
PIN 6- BLUE
PIN 7- PURPLE
PIN 8- GRAY
PIN 9- BLACK
D-SUB 9M TOP VIEW
PIN 1- BROWN
PIN 2- RED.....TX
PIN 3- ORANGE.....RX
PIN 4- YELLOW
PIN 5- GREEN.....GND
PIN 6- BLUE
PIN 7- PURPLE
PIN 8- GRAY
PIN 9- BLACK
D-SUB 9F TOP VIEW

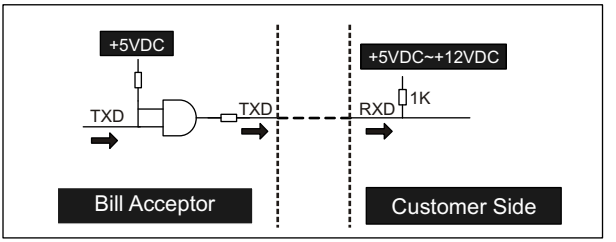
5-1-1. I/O Circuit

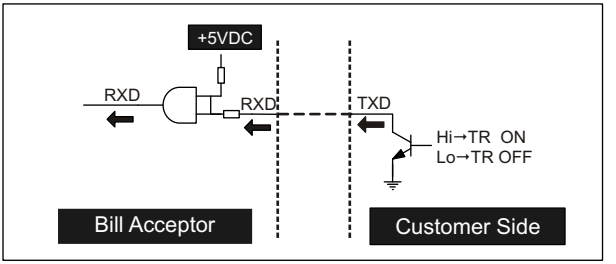
Pulse



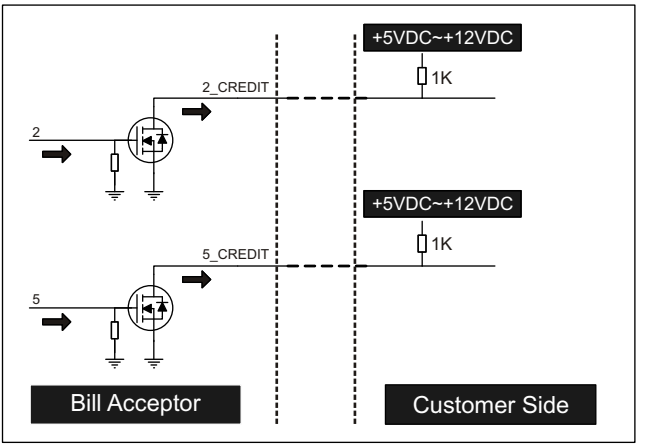


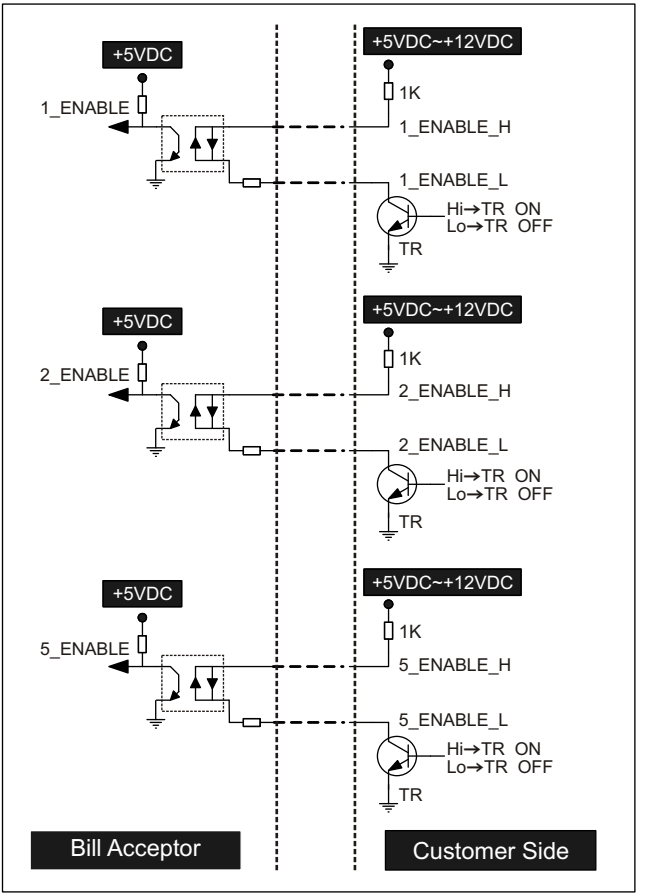
ICT-Protocol



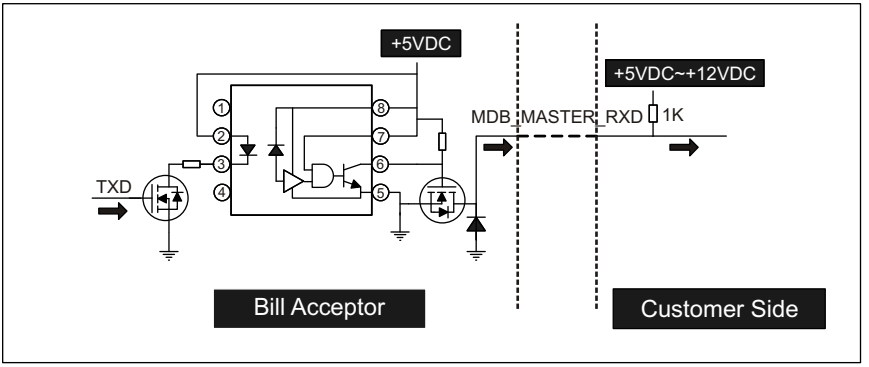


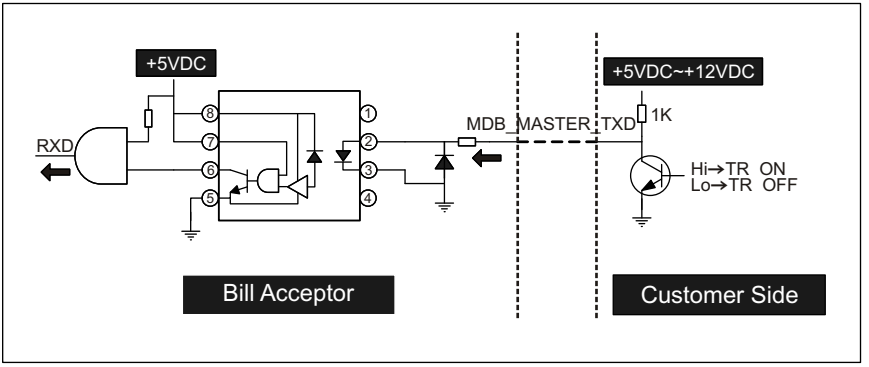
5V Enable


+5VDC~+12VDC
1K
2_CREDIT
2
+5VDC~+12VDC
1K
5_CREDIT
5
Bill Acceptor
Customer Side


+5VDC
+5VDC~+12VDC
1K
1_ENABLE
1_ENABLE_H
1_ENABLE_L
Hi→TR ON
Lo→TR OFF
TR
+5VDC
+5VDC~+12VDC
1K
2_ENABLE
2_ENABLE_H
2_ENABLE_L
Hi→TR ON
Lo→TR OFF
TR
+5VDC
+5VDC~+12VDC
1K
5_ENABLE
5_ENABLE_H
5_ENABLE_L
Hi→TR ON
Lo→TR OFF
TR
Bill Acceptor
Customer Side

MDB


+5VDC
+5VDC~+12VDC
MDB_MASTER_RXD
1K
TXD
Bill Acceptor
Customer Side


+5VDC
+5VDC~+12VDC
RXD
MDB_MASTER_TXD
1K
Hi→TR ON
Lo→TR OFF
Bill Acceptor
Customer Side

5-2. DIP Switch Setting

There are two serial DIP switches which are located on the side of A6/V6 Series **(as figure 1).** According to different currencies which are used by users, DIP switch settings could be varied to fit users' need.

Besides, there's also a serial DIP switches on CPU board inside of A6/V6 Series for interface settings.**(as figure 2)**

Please refer to "A6/V6 Series DIP Switch Setting" Guide in the package for more detail.

figure 1

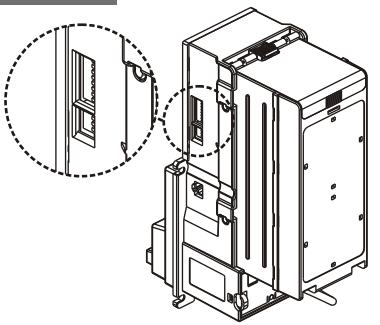
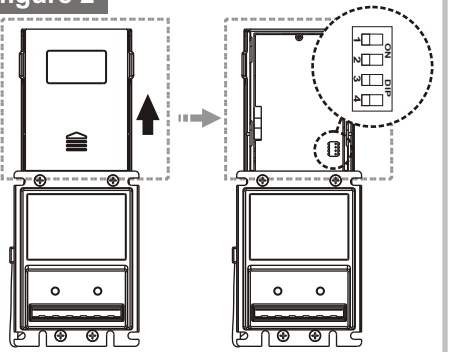
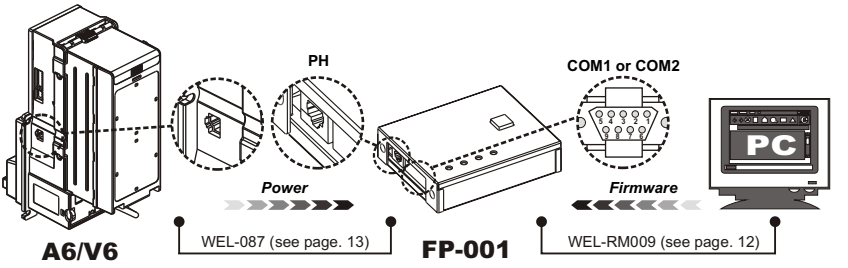


figure 2



5-3. Software Download and Upgrade

To download and upgrade the software to A6/V6 Series, the programmer (FP-001) is needed. Please contact ICT to purchase FP-001 and refer to FP-001 user guide for software download and upgrade information.



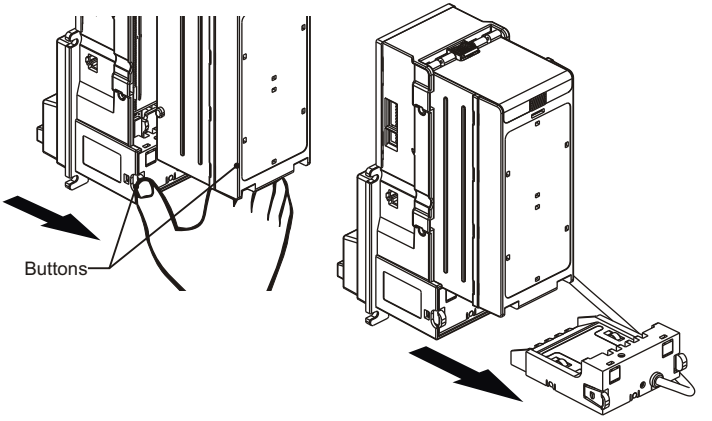
Power must be applied to BA AFTER connecting.

6. Maintenance

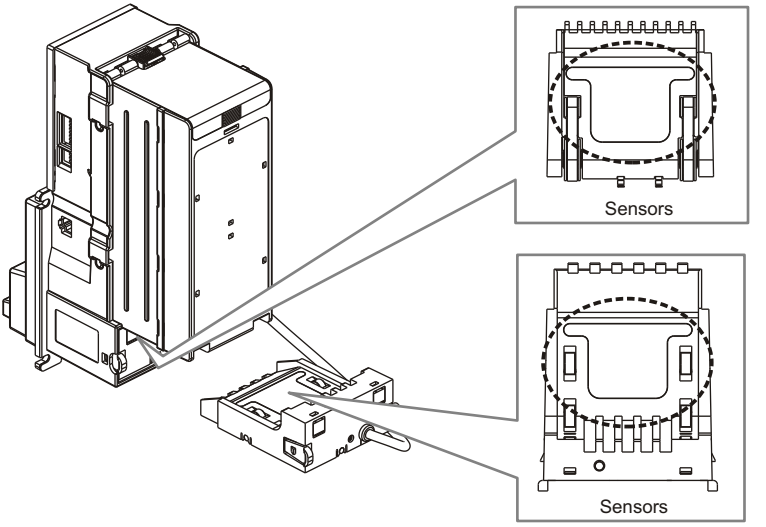
To make sure the bill acceptor always works smoothly, please clean the internal parts every two weeks to every two months.

To clean the internal parts:

1. Press the buttons on the sides of bill path unit and pull the unit out.



2. Use a soft, dry cloth or towel to clean the bill path and sensors.



Do not use an organic solvent such as gasoline or paint thinner to clean the unit.

7. Trouble Shooting

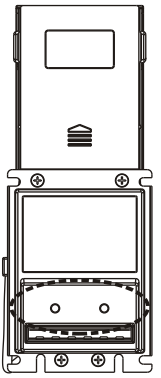
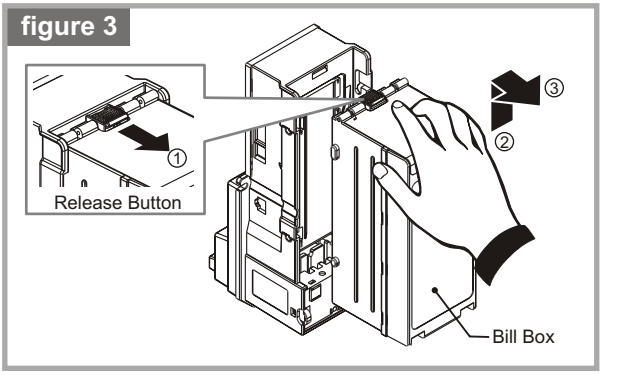


figure 3



LED Flashes	Status	Corrective Actions
1	Bill jammed.	Remove the bill box by sliding the top button and the bill path unit (as figure 3), and then remove the jammed bill.
3	Recognition sensor error.	Inspect for foreign objects on sensor or bill path and clean.
3+2	Hook sensor error.	Inspect for foreign objects on security hook and clean.
3+5 (Optional)	Out sensor error.	Inspect for foreign objects on sensor or bill path and clean.
2	Disable	Inspect for right DIP switch setting.
5	Bill box has been removed.	Replace the bill box.
6	Stacker error or stacker full.	Empty the bill box.
7	Motor error.	Inspect for foreign objects on bill path and clean.

If the error can not be solved after corrective actions or happen again, please contact ICT for technical support.

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Taiwan

International Currency Technologies Corporation

Ji-Hong Building, No 24, Alley 38, Lane 91, Nei-hu Rd., Sec. 1,
TaiPei, Taiwan, R.O.C.

Tel: 886-2-2797-1238 Fax:886-2-2797-1634

sales@ictgroup.com.tw (For Sales)

rma@ictgroup.com.tw (For Customer service)

Website:www.ictgroup.com.tw

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