



# A7/V7 *Series*

Bill Acceptor **Installation Guide**

International Currency Technologies Corp.

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## 1. Introduction

### 1-1. Overview

A7/V7 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.
- Numerous interfaces available.
- Easily Install & Maintain.
- High Acceptance Rate up to 96%.
- Auto-calibrating.

## 2. Specifications

### ***General***

**Acceptance Rate** 96% or greater

*Note: The incomplete bills such as extremely dirty, wet, broken or wrinkled ones are excluded.*

**Bill Insertion** Four-way acceptance

**Transaction Speed** Approx. 3 seconds to stack

**Interface** Standard Pulse, 5V Enable, MDB, ICT Protocol, GPT Parallel

**Installation** Indoor

**Electrical**

**Power Consumption**

**A7:** 12V DC Standby : 0.3A, 4W  
 Operation: 0.9A, 11W  
 Maximum: 2.6A, 32W  
 117V AC Standby : 0.06A, 7W  
 Operation: 0.12A, 15W  
 Maximum: 0.4A, 47W  
**V7:** 12V DC Standby : 0.3A, 4W  
 Operation: 0.8A, 10W  
 Maximum: 2.5A, 30W  
 24V AC Standby : 0.2A, 5W  
 Operation: 0.5A, 12W  
 Maximum: 1.5A, 36W  
 34V DC Standby : 0.15A, 6W  
 Operation: 0.4A, 14W  
 Maximum: 1.35A, 46W

**Power Source**

**A7:** 12V DC (11.4~12.6V DC)  
 117V AC (105.3~128.7V AC)  
**V7:** 12V DC (11.4~12.6V DC)  
 24V AC (21.6~26.4V AC)  
 34V DC (20V~42.5V DC)

**Operation Environment**

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

## ***Mechanical***

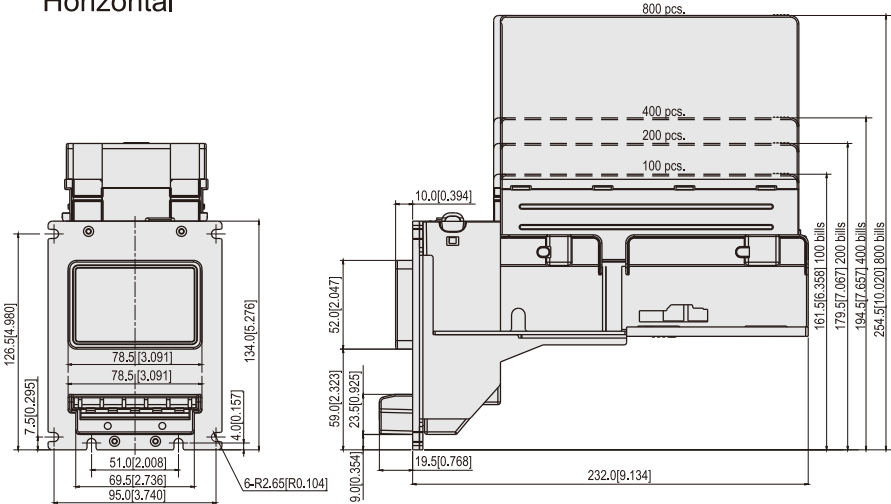
<b>Outline Dimension</b>	Refer to Page.5
<b>Bill Width</b>	62~72 mm
<b>Bill Capacity</b>	Approx. 100 bills ( 80~120) 200 bills (200~300) 400 bills (350~450) 800 bills (750~850)
<b>Weight</b>	Approx. 1.25kg

## **3. Packing List**

<b>Main</b>	Bill Acceptor
<b>Accessory</b>	Harnesses: see <b>5-1</b> A7/V7 Installation Guide A7/V7 DIP Switch Setting Guide

### 4. Dimension

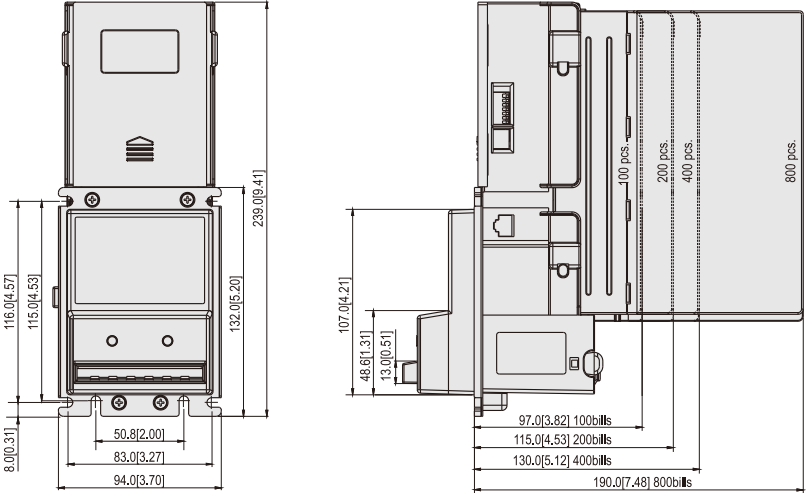
#### Horizontal



Unit : mm [inch]

4 FIG.01

#### Vertical



Unit : mm [inch]

4 FIG.02

## 5. Installation

### 5-1. Harness Application

5-1 TABLE 01

Model	Interface	Used Voltage	Usage	Harness	Page
A7	Standard Pulse	117V AC	Power & *Data Comm.	WEL-RM008	7
			Extension Wire	WEL-RM012	8
		12V DC	Power & *Data Comm.	WEL-RM007	9
			Extension Wire	CU-R961-1	10
	5V Enable	117V AC	Power & *Data Comm.	WEL-RM017	11
			Extension Wire	WEL-RM018	12
	ICT Protocol (RS232)	12V DC	Power	WEL-RM007	9
			**Power Ext.	CU-R961-1	10
			*Data Comm.	WEL-RV706-1 or 2-BA-RV706	13
		117V AC	Power	WEL-RM008	7
			**Power Ext.	WEL-RM012	8
			*Data Comm.	WEL-RV706-1 or 2-BA-RV706	13
V7	Standard Pulse	12V DC	Power & *Data Comm.	WEL-RV701	14
			Extension Wire	CU-R961-1	10
		24V AC	Power & *Data Comm.	WEL-RV703	16
			Extension Wire	WEL-RV702	15
	MDB	34V DC	Power & *Data Comm.	WEL-RM006	17
	ICT Protocol (RS232)	12V DC	Power	WEL-RV701	14
			Extension Wire	CU-R961-1	10
			*Data Comm.	WEL-RV706-1 or 2-BA-RV706	13
			GPT Parallel	24V AC	Power & *Data Comm.

\*Data Comm. : Data Communication.

\*\*Power Ext. : Power Extension Wire

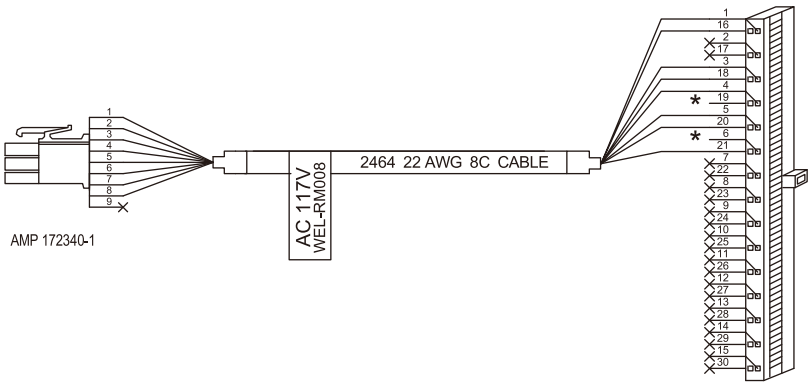
\*\*\*5RBG-AA203L1-xx : Plug-in Box & Cables, "xx" varies from version to version.



5-1 FIG. 01

Interface	Used Voltage	Usage
STD Pulse	117V AC	Power & *Data Comm.
ICT Protocol (RS232 )	117V AC	Power

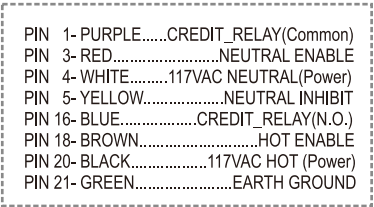
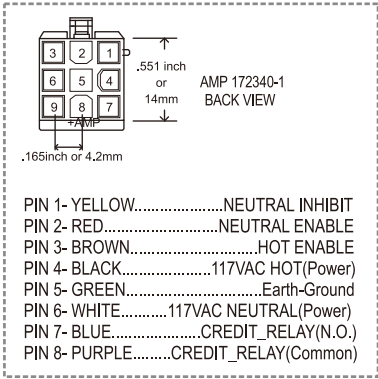
WEL-RM008



AMP 172340-1

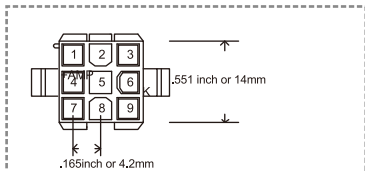
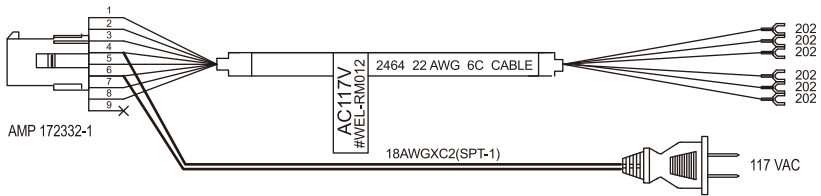
AC 117V  
WEL-RM008

2464 22 AWG 8C CABLE



Interface	Used Voltage	Usage
STD Pulse	117V AC	Extension Wire for WEL-RM008
ICT Protocol (RS232 )	117V AC	Extension Wire for WEL-RM008

### WEL-RM012



AMP 172332-1 BACK VIEW

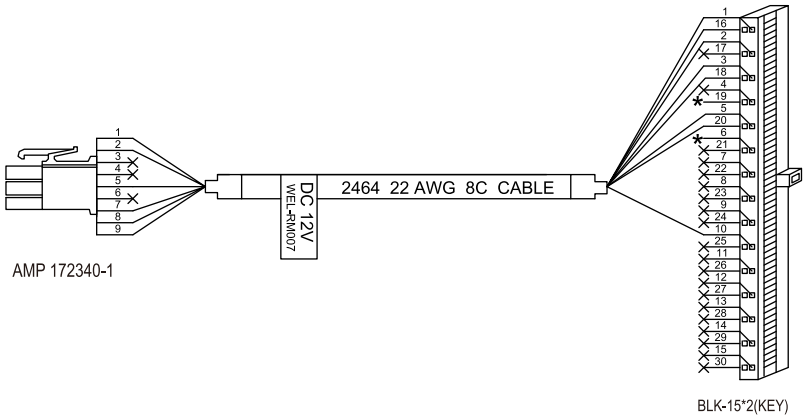
- PIN 1- YELLOW.....NEUTRAL INHIBIT
- PIN 2- RED.....NEUTRAL ENABLE
- PIN 3- ORANGE.....HOT ENABLE
- PIN 4- BLACK.....17VAC HOT (Power)
- PIN 5- GREEN.....Earth - Ground
- PIN 6- BLACK.....117VAC NEUTRAL (Power)
- PIN 7- BLUE.....CREDIT\_RELAY (N.O.)
- PIN 8- PURPLE..CREDIT\_RELAY (Common)
- PIN 9- Reserved

- YELLOW.....NEUARAL INHIBIT
- RED.....NEUTRAL ENABLE
- ORANGE.....HOT ENABLE
- GREEN.....Earth - Ground
- BLUE.....CREDIT\_RELAY (N.O.)
- PURPLE.....CREDIT\_RELAY (Common)



Interface	Used Voltage	Usage
STD Pulse	12V DC	Power & *Data Comm.
ICT Protocol (RS232)	12V DC	Power

WEL-RM007

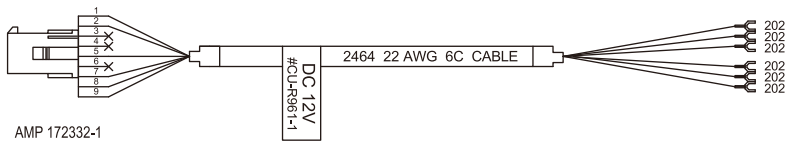


- PIN 1- YELLOW.....INHIBIT+
- PIN 2- GREEN.....INHIBIT-
- PIN 3- RESERVED
- PIN 4- RESERVED
- PIN 5- RED.....12V DC (POWER)
- PIN 5 DOTTED- BLACK.....12V DC (POWER)
- PIN 6- RESERVED
- PIN 7- BLUE.....CREDIT\_RELAY (N.O.)
- PIN 8- PURPLE.....CREDIT\_RELAY (COMMON)
- PIN 9- BROWN.....GND (POWER)
- PIN 9 DOTTED- WHITE.....GND (POWER)

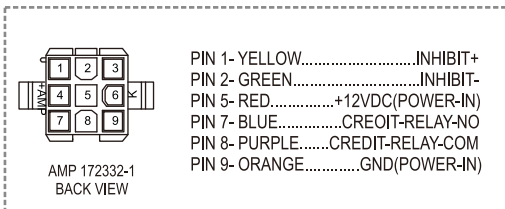
- PIN 1- PURPLE.....CREDIT\_RELAY (COMMON)
- PIN 2- RED.....12VDC (POWER)
- PIN 3- WHITE.....ENABLE-
- PIN 5- YELLOW.....INHIBIT+
- PIN 10- BROWN.....GND (POWER)
- PIN 16- BLUE.....CREDIT\_RELAY (N.O.)
- PIN 18- BLACK.....ENABLE+
- PIN 20- GREEN.....INHIBIT-

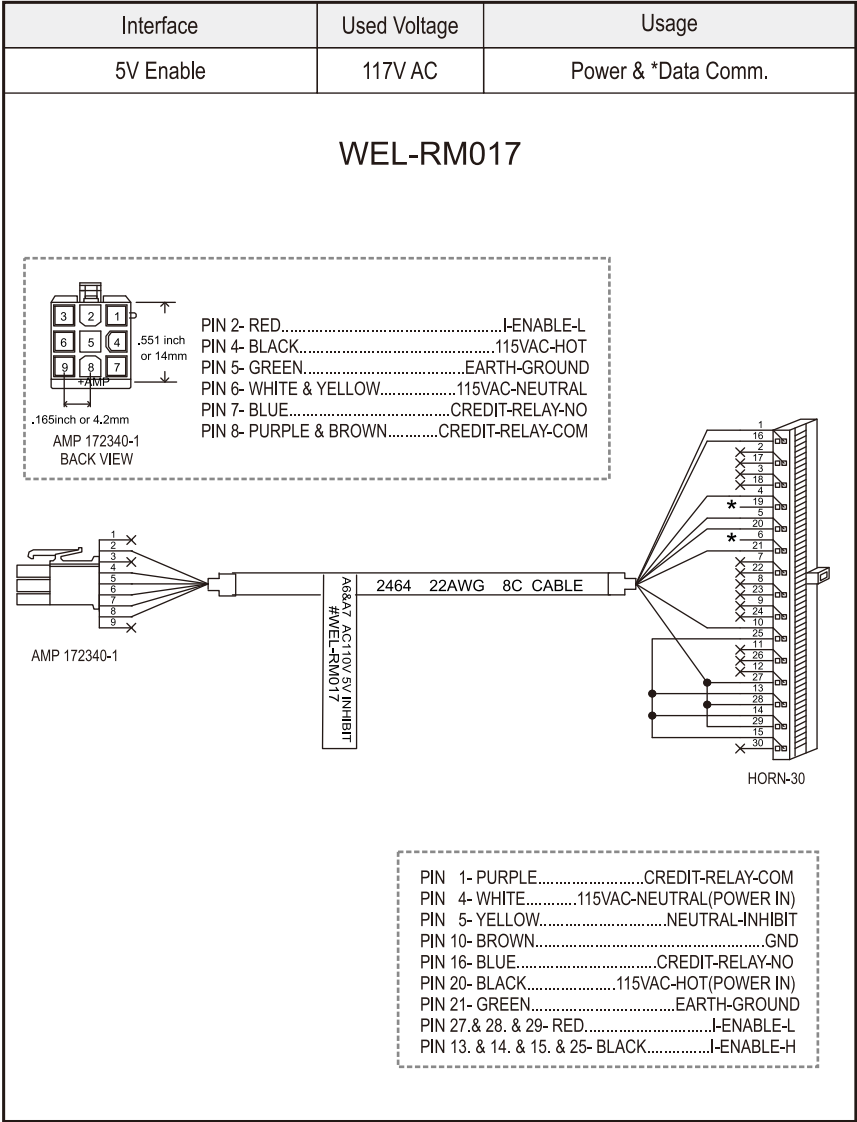
Interface	Used Voltage	Usage
STD Pulse	12V DC	Extension Wire for WEL-RM007
ICT Protocol (RS232 )	12V DC	Extension Wire for WEL-RM007
STD Pulse	12V DC	Extension Wire for WEL-RV701
ICT Protocol (RS232 )	12V DC	Extension Wire for WEL-RV701

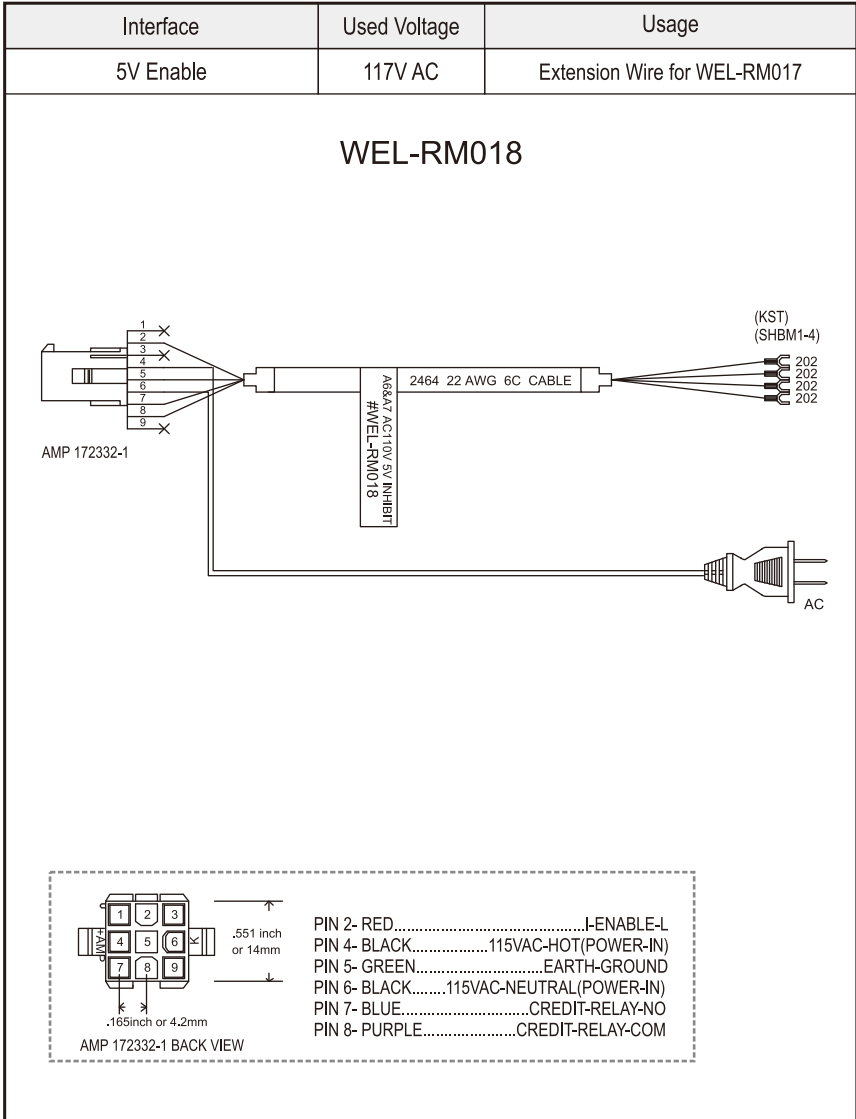
CU-R961-1



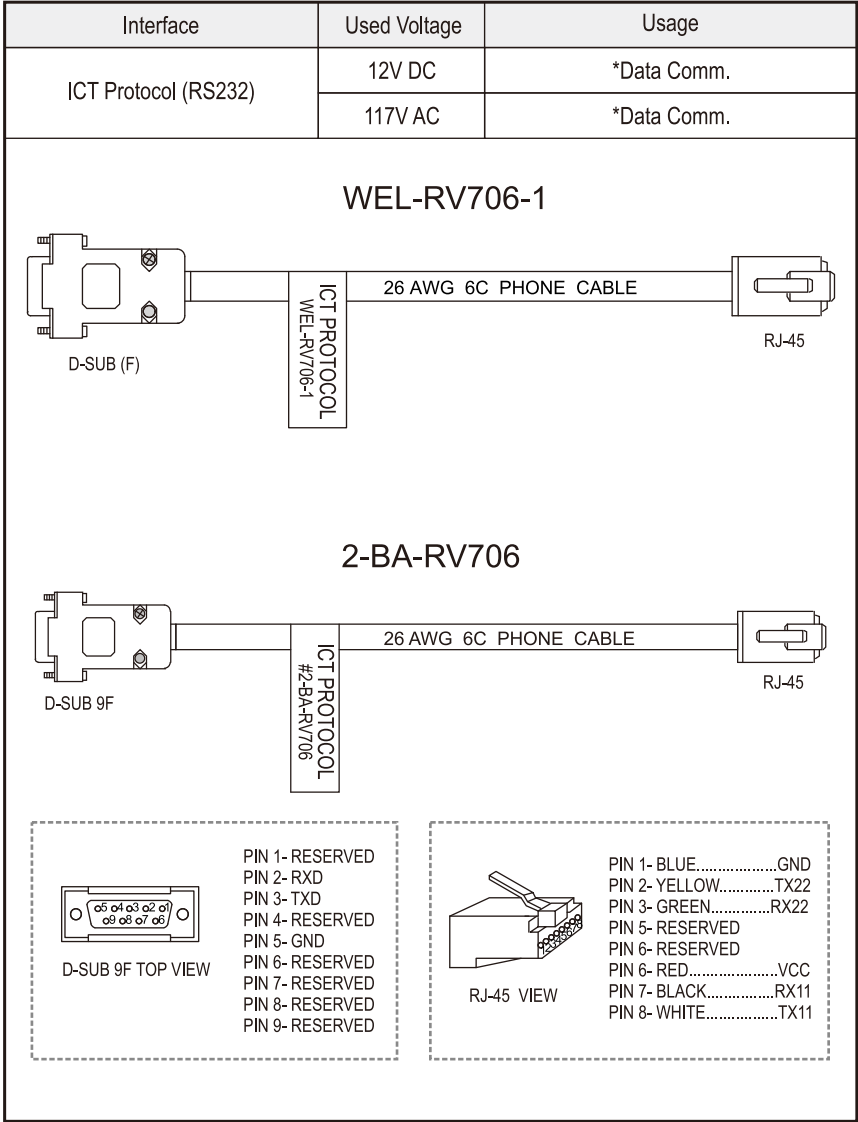
AMP 172332-1





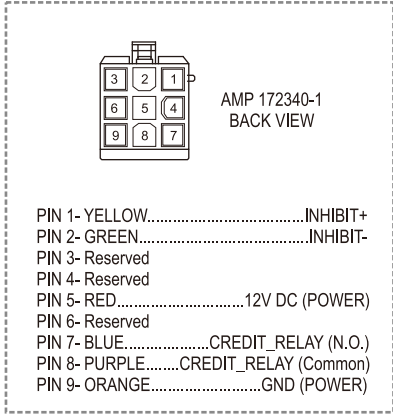
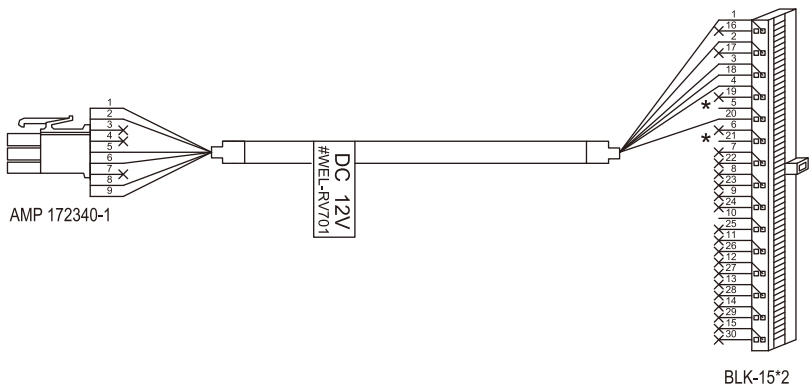


5-1 FIG. 07



Interface	Used Voltage	Usage
STD Pulse	12V DC	Power & *Data Comm.
ICT Protocol (RS232 )	12V DC	Power

WEL-RV701

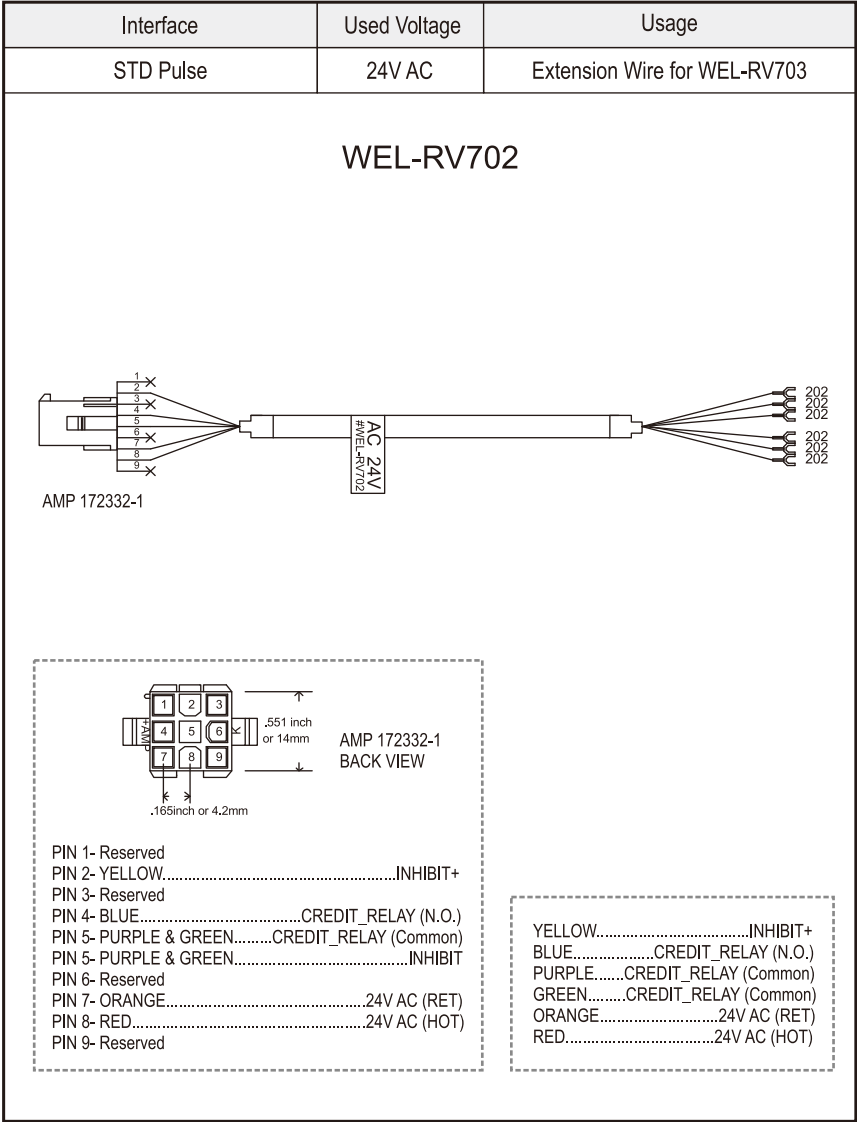


- PIN 1- YELLOW.....INHIBIT+
- PIN 2- GREEN.....INHIBIT-
- PIN 3- Reserved
- PIN 4- Reserved
- PIN 5- RED.....12V DC (POWER)
- PIN 6- Reserved
- PIN 7- BLUE.....CREDIT\_RELAY (N.O.)
- PIN 8- PURPLE.....CREDIT\_RELAY (Common)
- PIN 9- ORANGE.....GND (POWER)

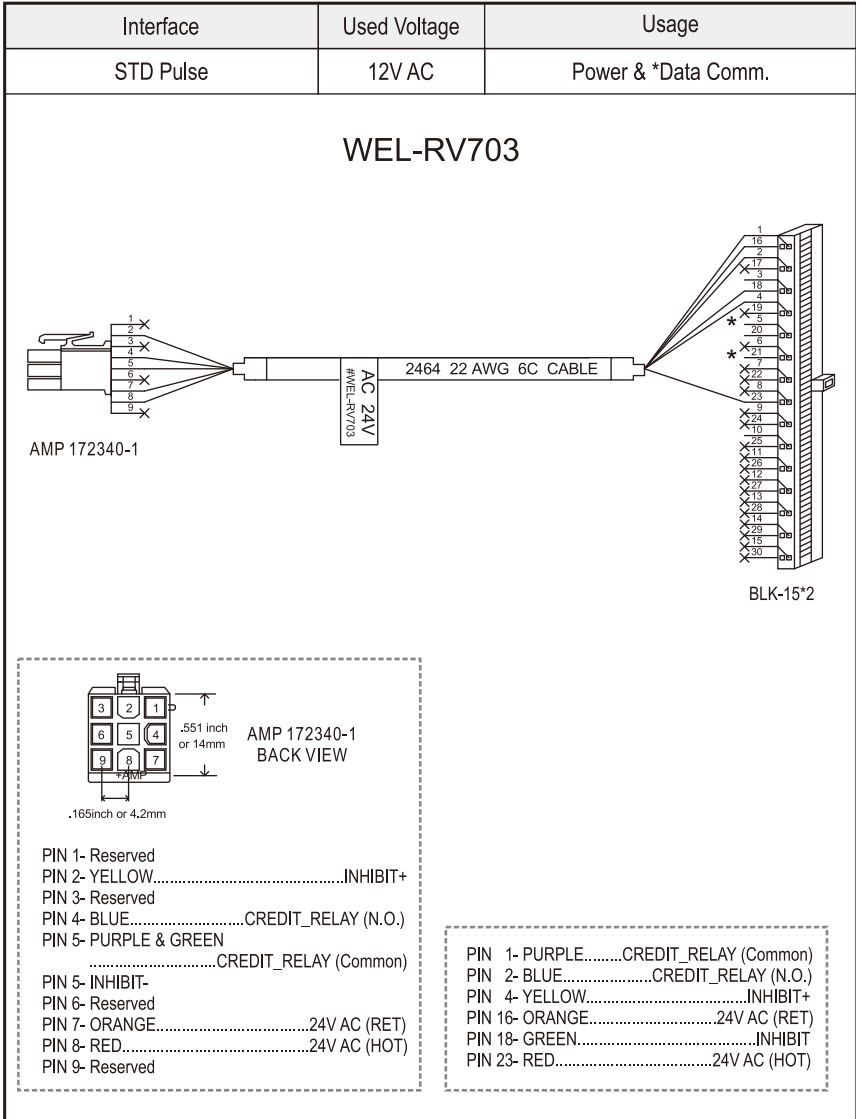
- PIN 1- PURPLE.....CREDIT\_RELAY (Common)
- PIN 2- BLUE.....CREDIT\_RELAY ( N.O.)
- PIN 3- RED.....12VDC (POWER)
- PIN 4- YELLOW.....INHIBIT+
- PIN 18- GREEN.....INHIBIT-
- PIN 20- ORANGE .....GND (POWER)



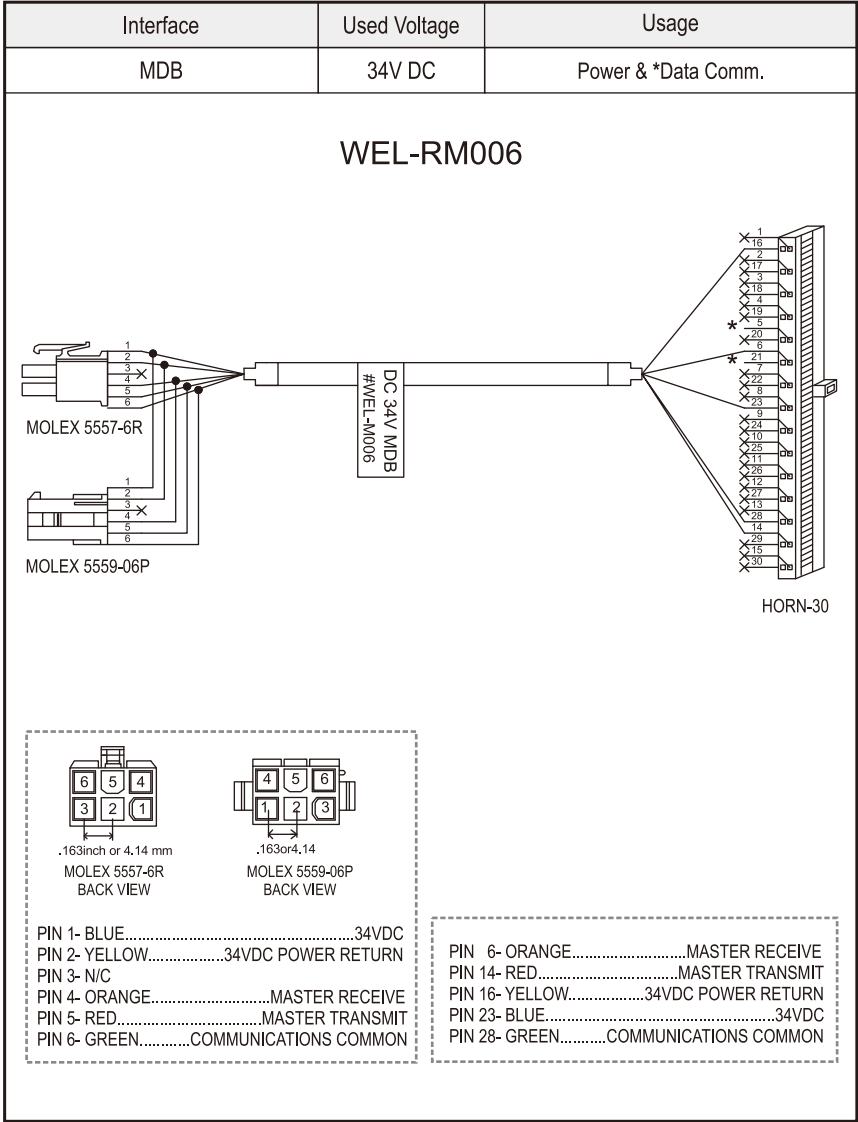
5-1 FIG. 09

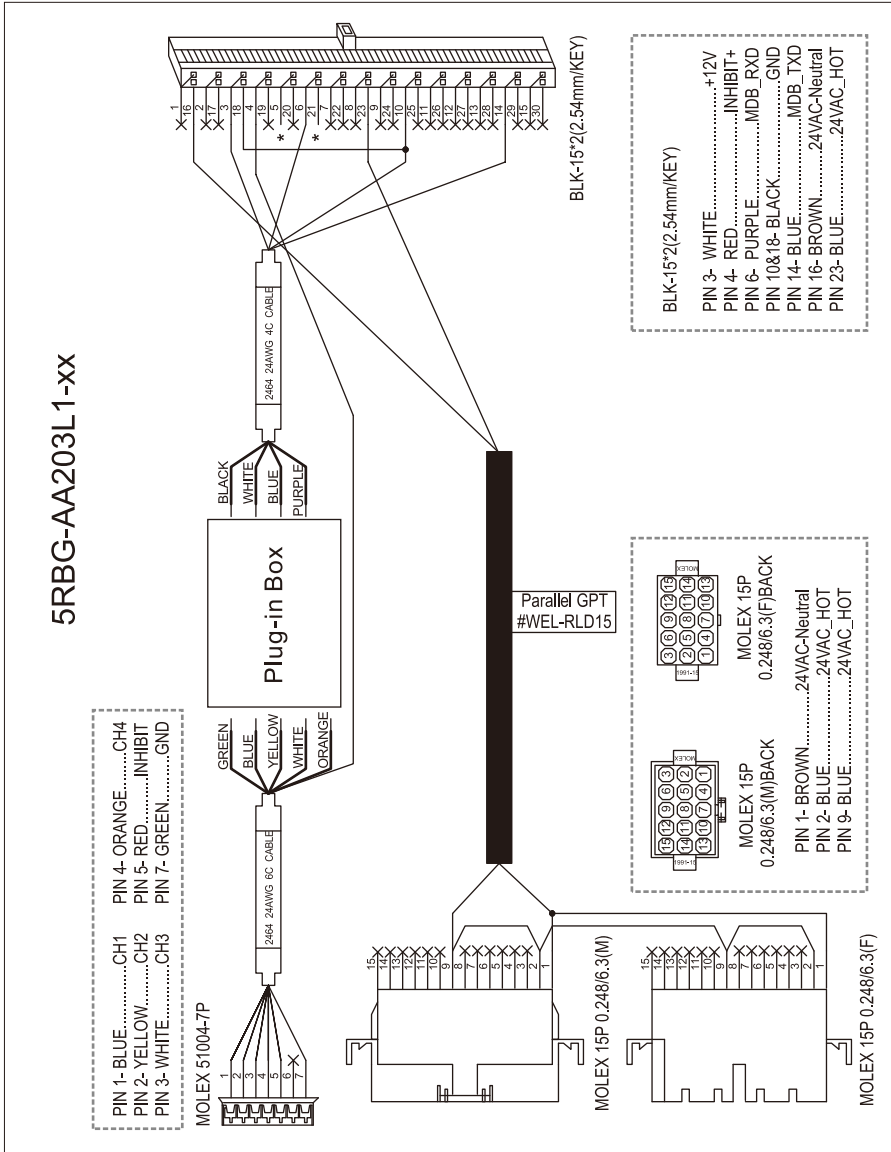


5-1 FIG. 10



5-1 FIG. 11

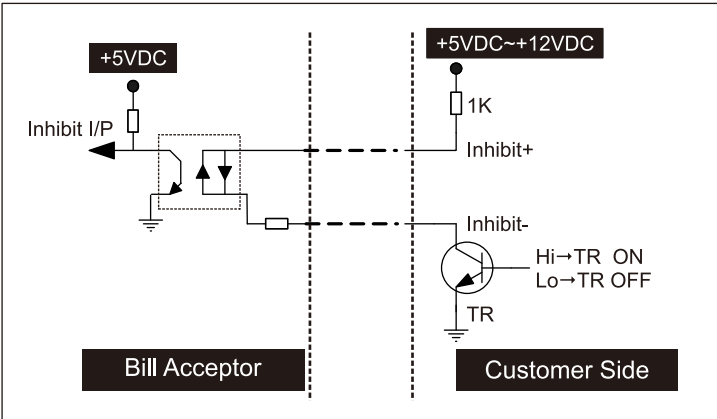
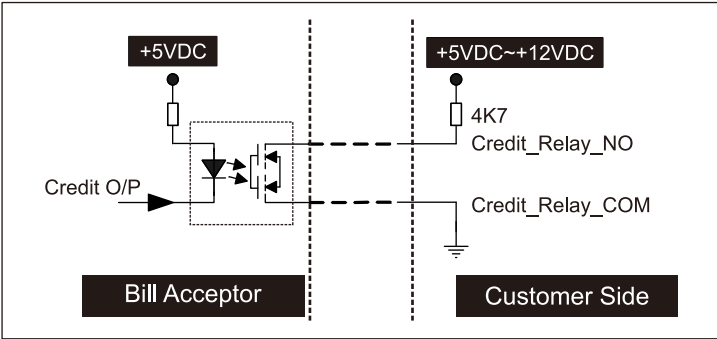




5-1-1. I/O Circuit

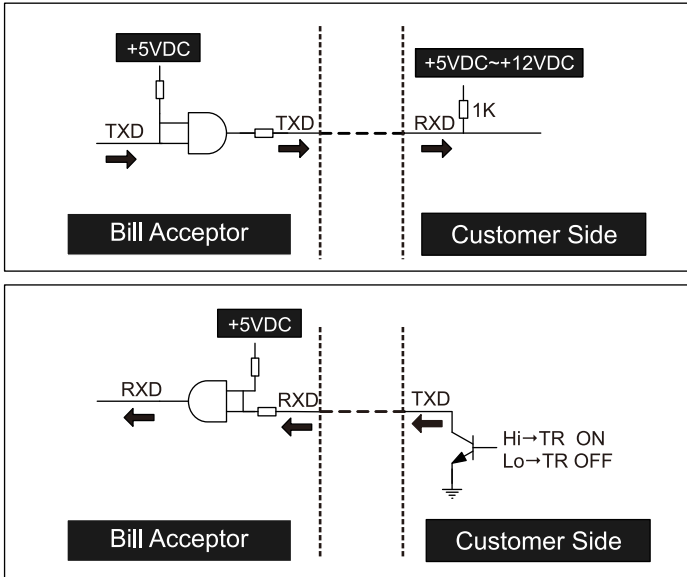
Pulse Interface

5-1-1 FIG. 01



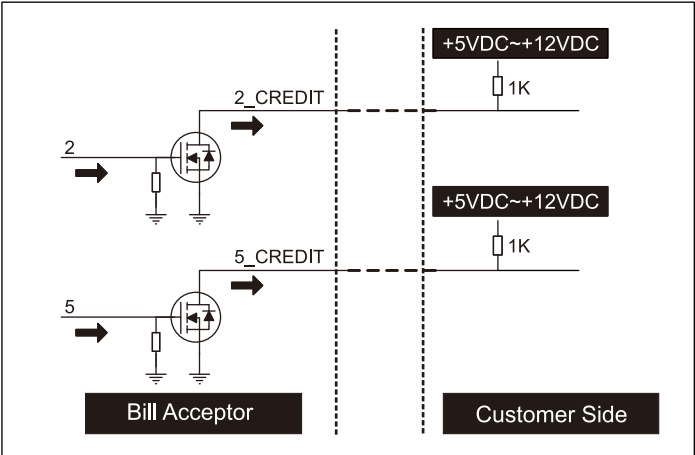
ICT-Protocol Interface

5-1-1 FIG. 02

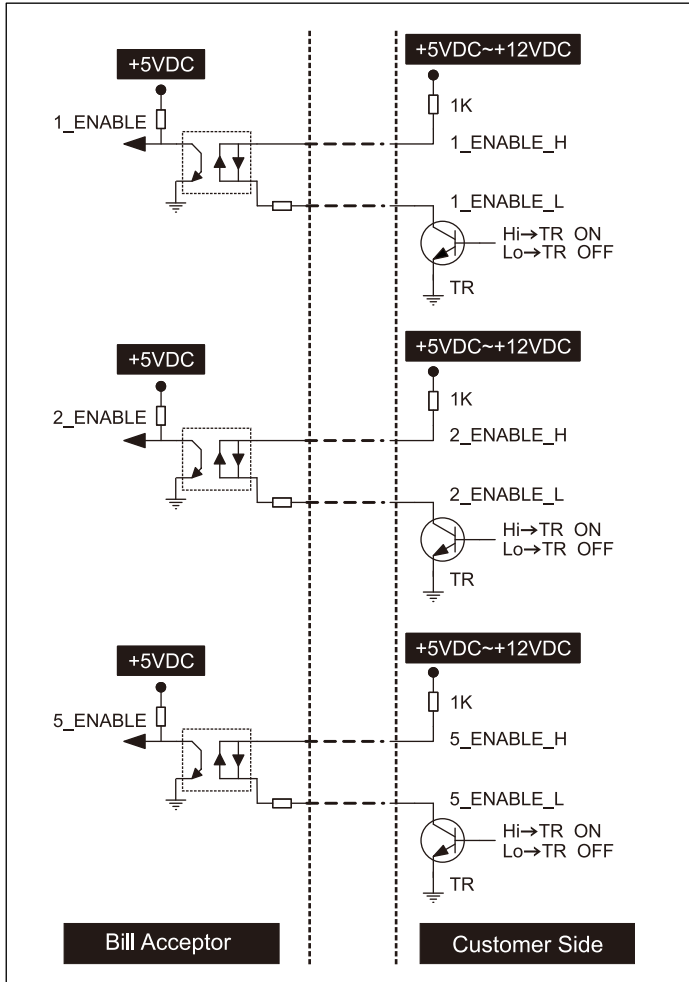


5V Enable Interface

5-1-1 FIG. 03



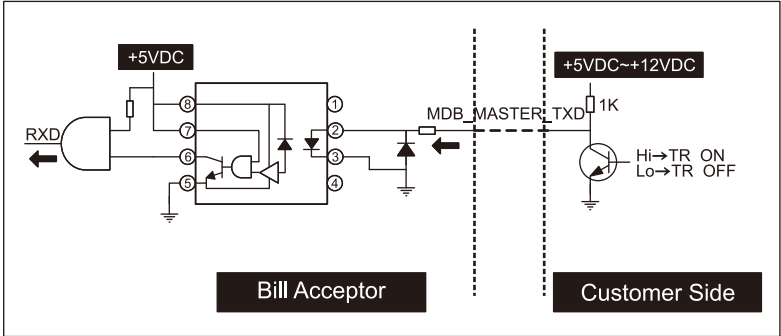
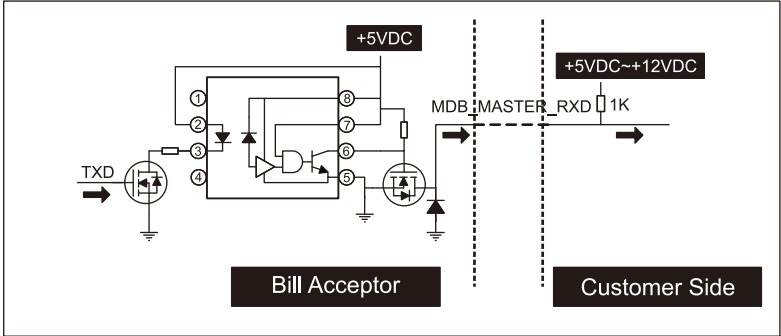
5-1-1 FIG. 03-1





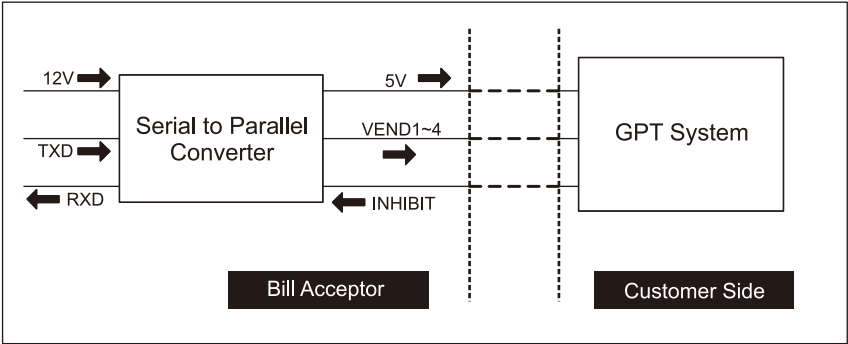
MDB Interface

5-1-1 FIG. 04



GPT Parallel Interface

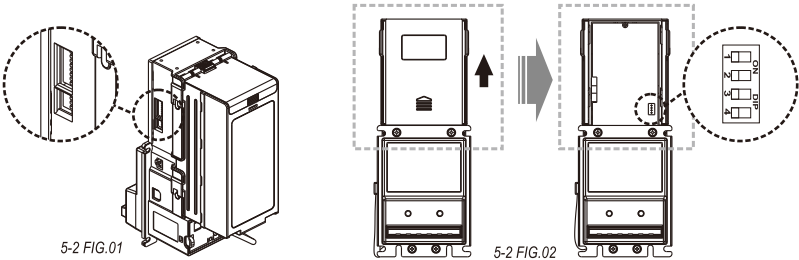
5-1-1 FIG. 05



### 5-2. DIP Switch Setting

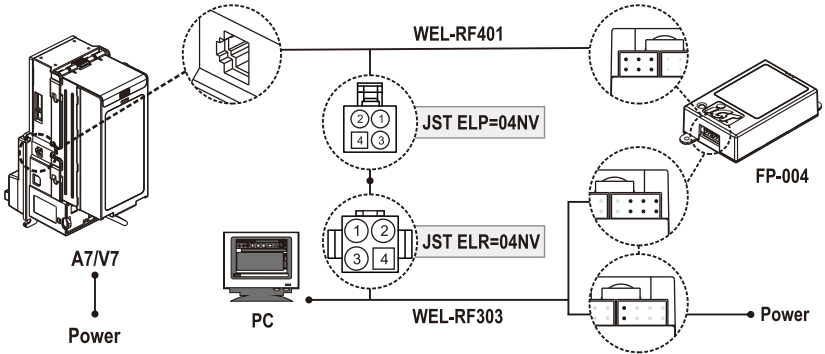
There are two serial DIP switches which are located on the side of A7/V7 series (as FIG.01). According to different currencies which are used by users, DIP switch settings could be varied to fit users' need. Besides, there's also a serial DIP switches on CPU board inside of A7/V7 series for interface settings.(as FIG.02)

Please refer to "A7/V7 series DIP switch setting" guide in the package for more detail.



### 5-3. Software Download and Upgrade

To download and upgrade the software to A7/V7 series, 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.



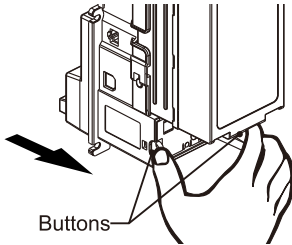
**Power must be applied to Bill Acceptor after connecting.**

## 6. Maintenance

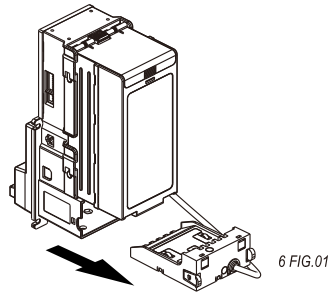
To make sure the bill acceptor always works smoothly, please clean the internal parts regularly.

To clean the internal parts:

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

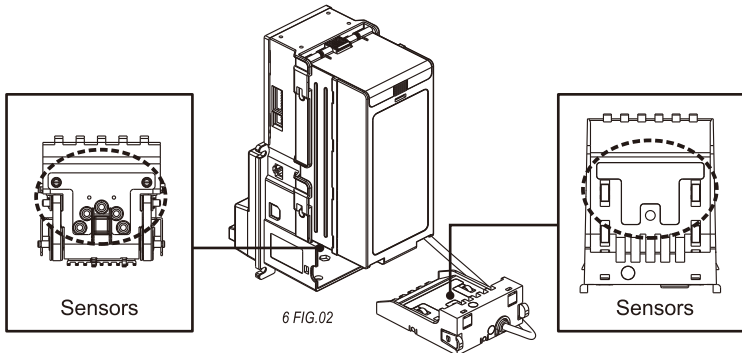


6 FIG.01-1



6 FIG.01

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

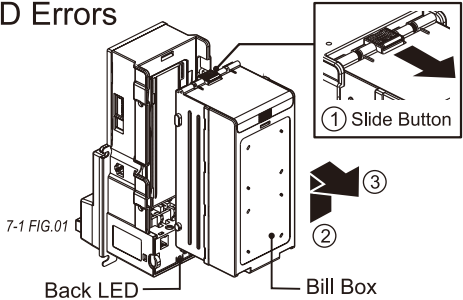


6 FIG.02

	<b>Maintenance Notice</b>	
	<i>(Any improper maintenance will invalidate the warranty.)</i>	
	<b>Recommended</b>	<b>Mild, non-abrasive, soap water.</b>
<b>DO NOT USE</b>	<b>Organic solvent , Alcohol, Volatile liquid.</b>	

# 7. Troubleshooting

## 7-1. Back LED Errors



7-1 TABLE 01-1

LED	Status	Correct Actions
<b>GREEN</b>		
<b>1</b>	White Card Calibration.	Please calibrate with ICT white calibration card.

7-1 TABLE 01-1

LED Flashes	Status	Corrective Actions
<b>GREEN</b>		
<b>1</b>	Bill jammed.	Remove the bill box by sliding the top button and the bill path(as 7-1 FIG.01), and then remove the jammed bill.
<b>2</b>	Disable.	Inspect the right DIP switch setting.
<b>3</b>	Recognition sensor module error.	Inspect the foreign objects on sensor or bill path and clean.
<b>3+2</b>	Hook sensor error.	Inspect the foreign objects on security hook and clean.
<b>4</b>	Anti-string sensor error or a stringing attempt has detected.	Inspect the foreign objects on sensor or bill path and clean.
<b>5</b>	Bill box has been removed.	Replace the bill box.
<b>6</b>	Stacker error or stacker full.	Empty the bill box.
<b>7</b>	Motor error.	Inspect the 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.**



**ict** Taiwan

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