



Bill Acceptor

TAO-A/V I

Series

Installation Guide

International Currency Technologies Corp.

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1. Introduction

1-1. Overview

TAO-A/V I series is a bill acceptor which features a lockable bill box for high-security with acceptance rate up to 96% or greater.

1-2. Features

- Four way bill insertion acceptance.
- Auto-calibrating.
- Win XP/Vista and Linux compatible USB interface available.
- Secure, lockable, and removable bill box is available for 200, 500 and 1000 bills capacity.

2. Specifications

General

Acceptance Rate	96 % or greater
Bill Insertion	Four way acceptable
Transaction Speed	Approx. 3 seconds to stack
Interface	TAO-A I: Pulse, 5V ENABLE, NISR, ICT Protocol ,Single Price. TAO-V I: Pulse, MDB, ICT Protocol.



Installation: Indoor use only!!

Electrical**Power Source**

TAO-A I: 12V DC (10.8V~ 13.2V DC)
117V AC (105.3V~128.7V AC)

TAO-V I: 12V DC (10.8V~ 13.2V DC)
24V AC (21.6V~ 26.4V AC)
34V DC (20V~ 42.5V DC)

Power Consumption

TAO-A I: 12V DC- Standby : 0.3A, 4W
Operation: 0.9A, 11W
Maximum: 2.6A, 32W
117V AC- Standby : 0.04A, 5W
Operation: 0.12A, 15W
Maximum: 0.4A, 47W

TAO-V I: 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

Operation Environment

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

Mechanical

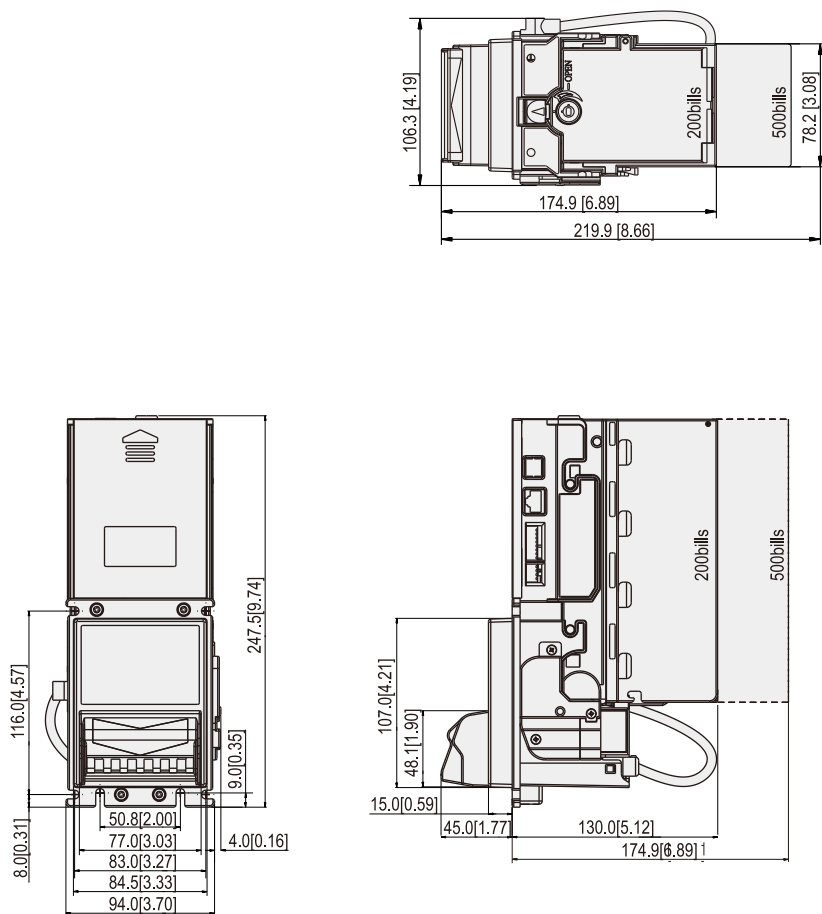
Bill Capacity	TAO-A/V I-P2 : 200 bills TAO-A/V I-P5 : 500 bills TAO-A/V I-P10:1000 bills
Outline Dimension	Refer to page.5
Weight	TAO-A/V I-P2 : Approx. 1.22kg TAO-A/V I-P5 : Approx. 1.35kg TAO-A/V I-P10: Approx. 1.72kg
Bill Accepted Width	62mm~66mm

3. Packing List

Main	Bill Acceptor
Accessory	Harnesses: Refer to 5-1 TAO-A/V I series Installation Guide TAO-A/V Switches Setting Guide Key for bill box Bezel Sticker

4. Dimension

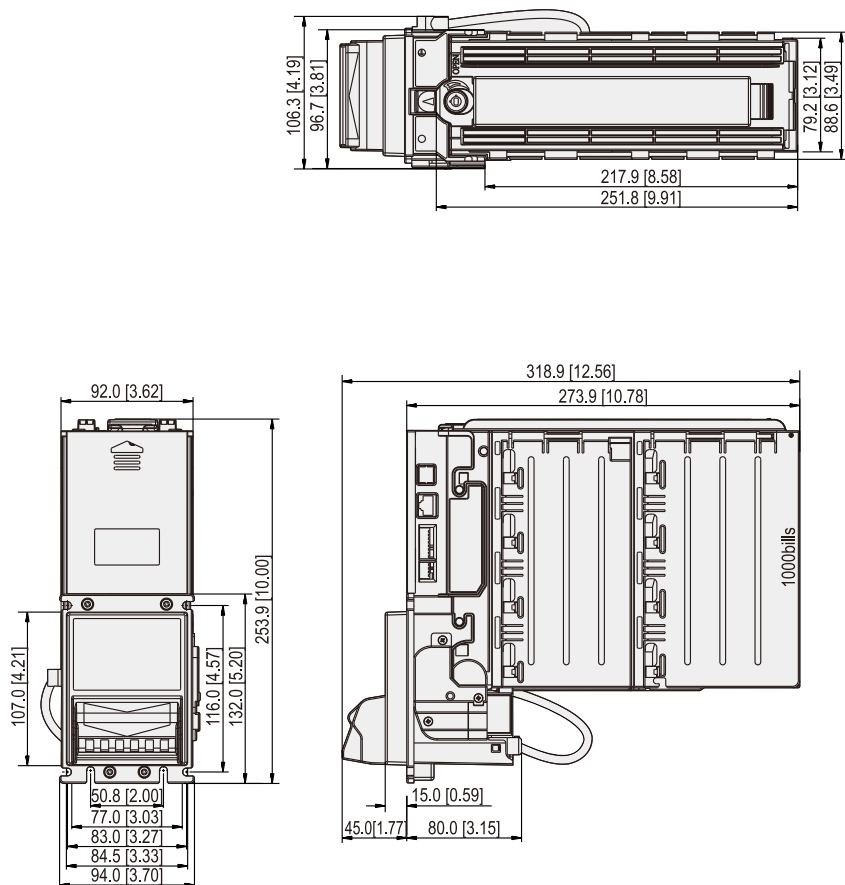
TAO-A/V I-P2/ P5



Unit : mm [inch]

4 FIG.01

TAO-A/V I-P10



Unit : mm [inch]

4 FIG.02

5. Installation

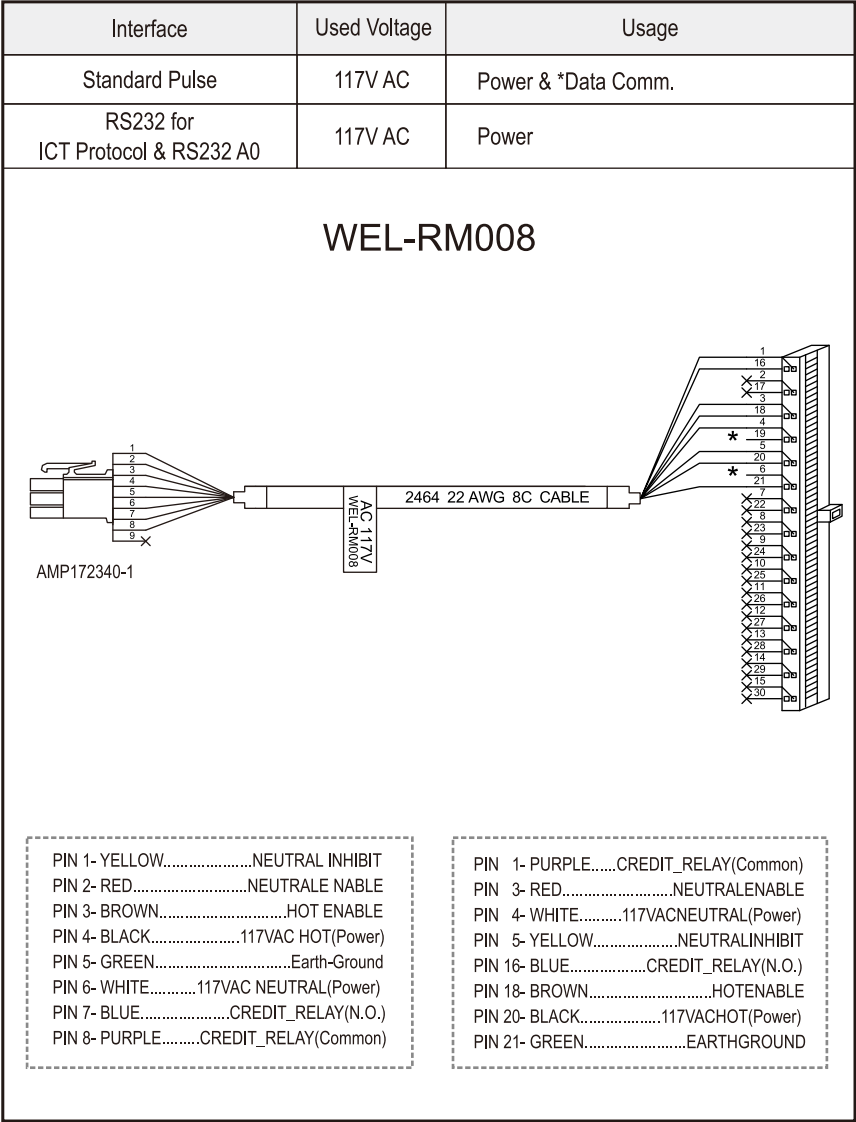
5-1. Harness Application

5-1 TABLE 01

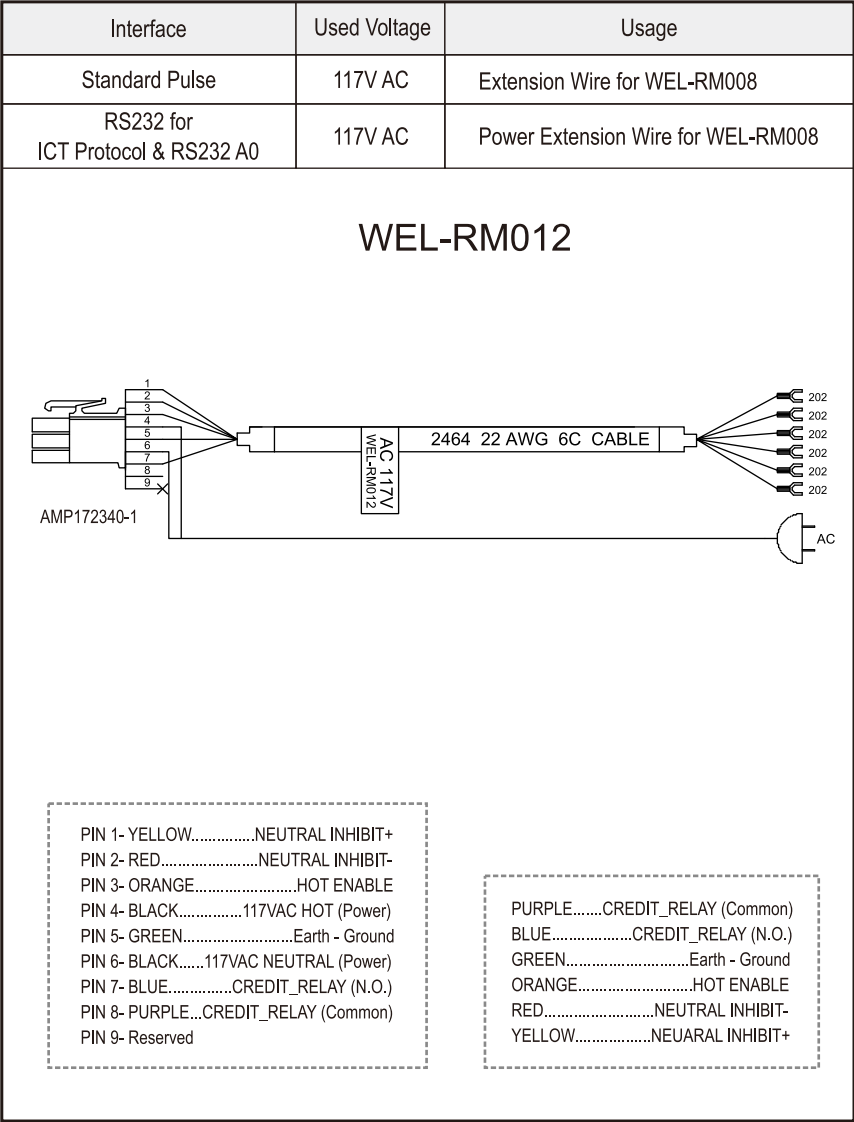
Model	Interface	Used Voltage	Usage	Harness	Page
TAO-A I	Standard Pulse	117V AC	Power & *Data Comm.	WEL-RM008	8
			Extension Wire	WEL-RM012	9
		12V DC	Power & *Data Comm.	WEL-RM007	10
			Extension Wire	CU-R961-1	11
	5V ENABLE	117V AC	Power & *Data Comm.	WEL-RM017	12
			Extension Wire	WEL-RM018	13
	RS232 for ICT Protocol & RS232 A0	12V DC	Power	WEL-RM007	10
			Power Extension Wire	CU-R961-1	11
			*Data Comm.	WEL-RV706-1 or 2-BA-RV706	14
		117V AC	Power	WEL-RM008	8
			Power Extension Wire	WEL-RM012	9
			*Data Comm.	WEL-RV706-1 or 2-BA-RV706	14
	NISR	117V AC	Power & *Data Comm.	WEL-RM023	15
	Single Price	117V AC	Power & *Data Comm.	WEL-RM031	16
	USB for ICT Protocol	-	*Data Comm.	WEL-RU1180	17
TAO-V I	Standard Pulse	12V DC	Power & *Data Comm.	WEL-RV701	18
			Extension Wire	CU-R961-1	11
	MDB	34V DC	Power & *Data Comm.	WEL-RM006	19
	RS232 for ICT Protocol & RS232 A0	12V DC	Power	WEL-RV701	18
			Power Extension Wire	CU-R961-1	11
			*Data Comm.	WEL-RV706-1 or 2-BA-RV706	14
	USB for ICT Protocol	-	*Data Comm.	WEL-RU1180	17

* Data Comm. : Data Communication.

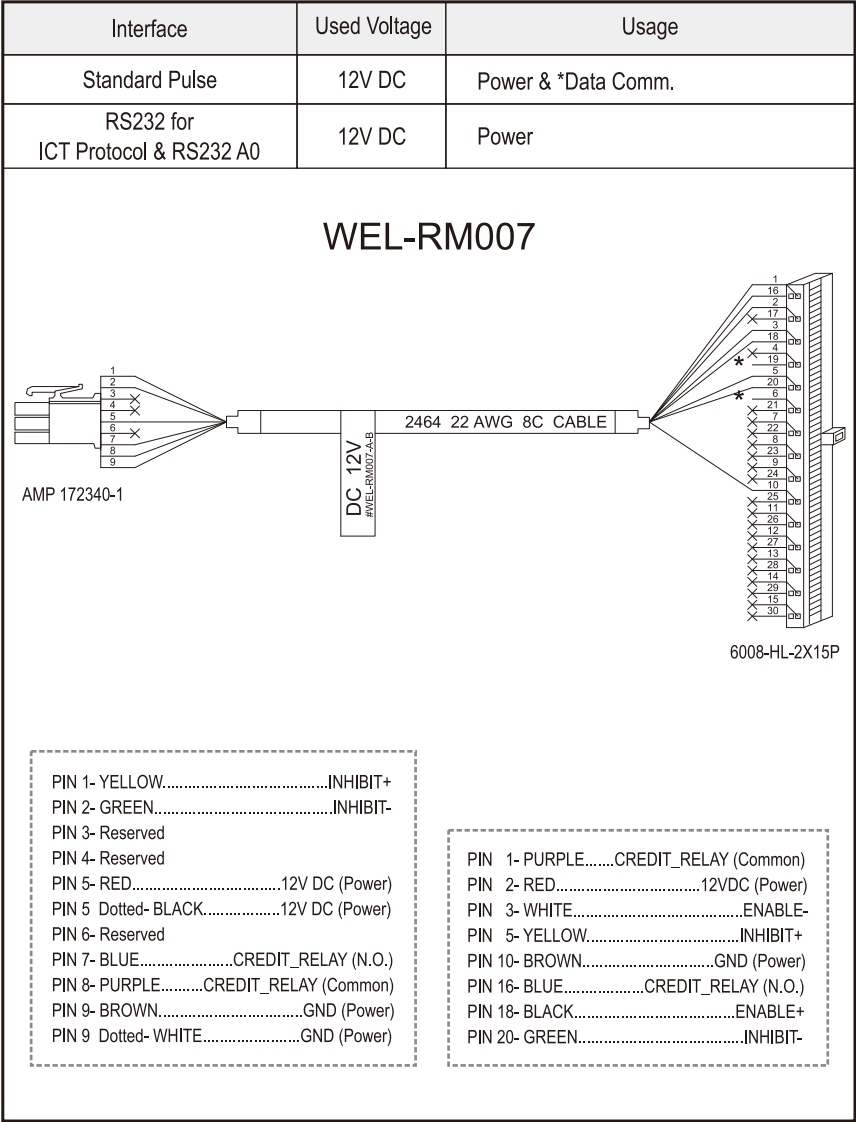
5-1 FIG.01



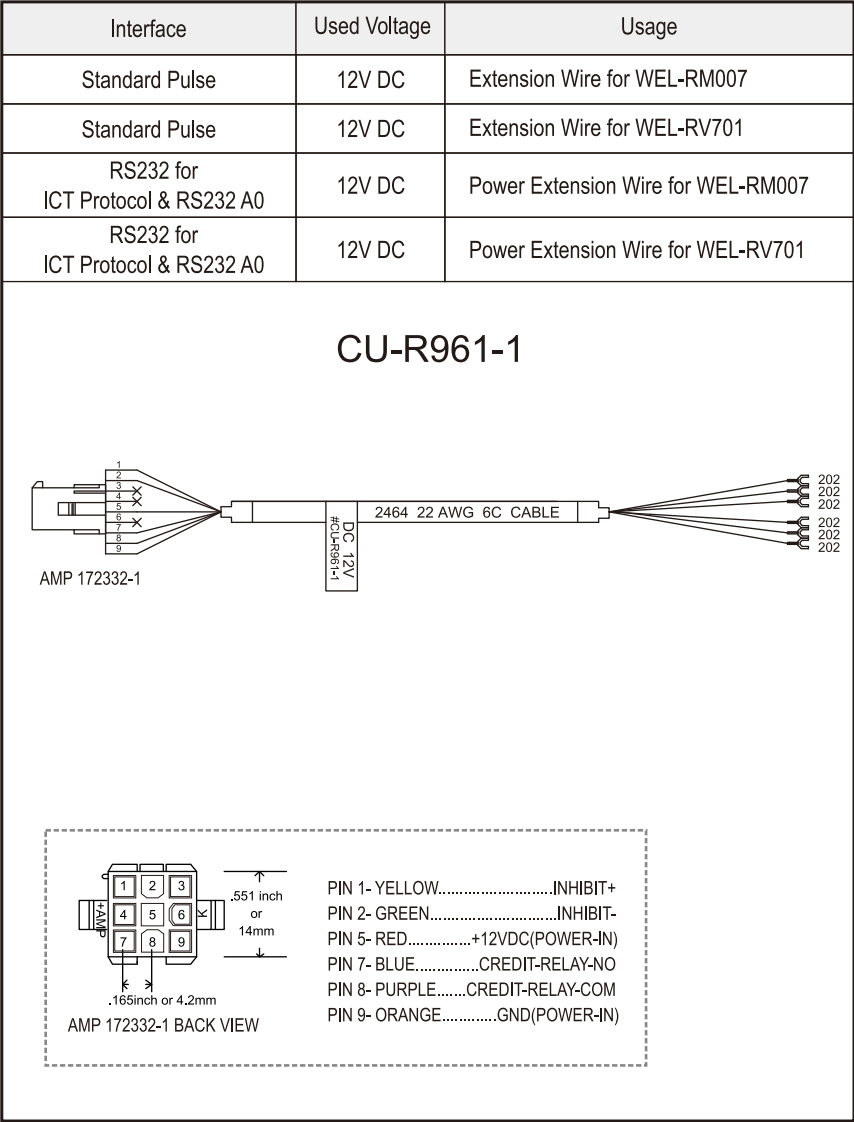
5-1 FIG.02



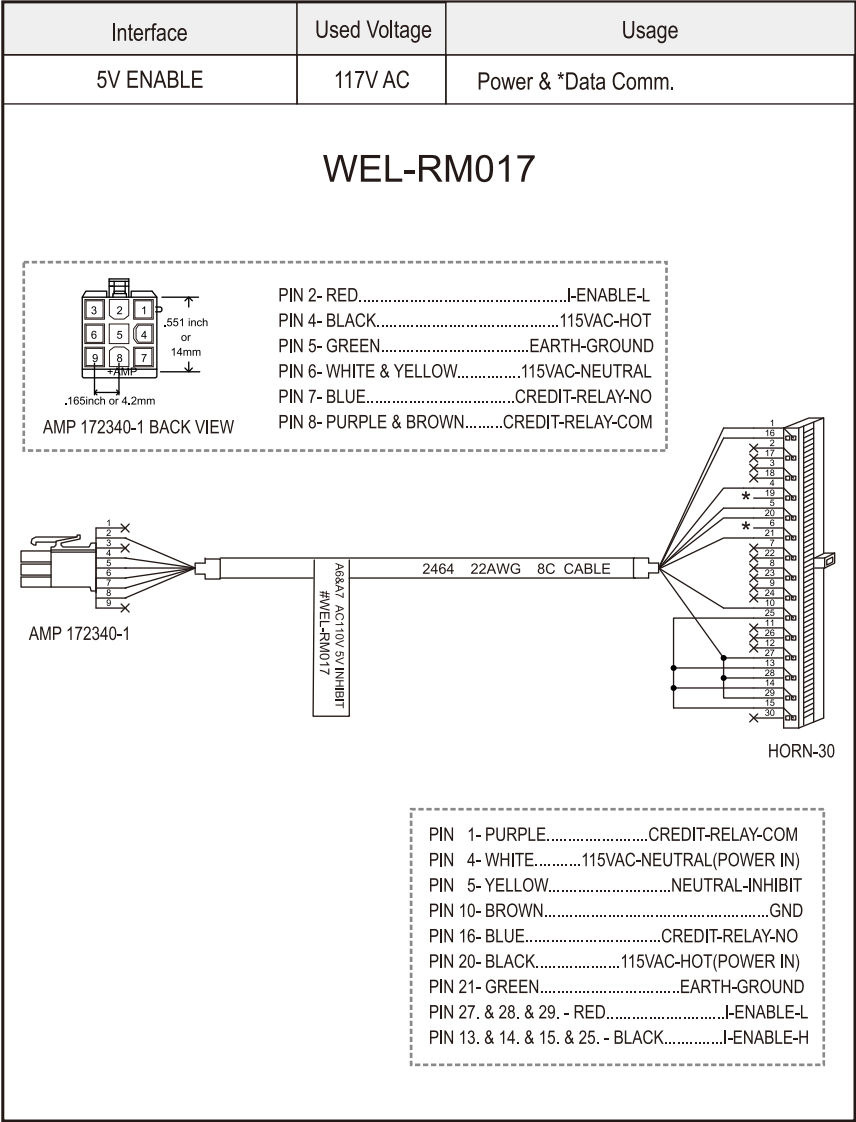
5-1 FIG.03



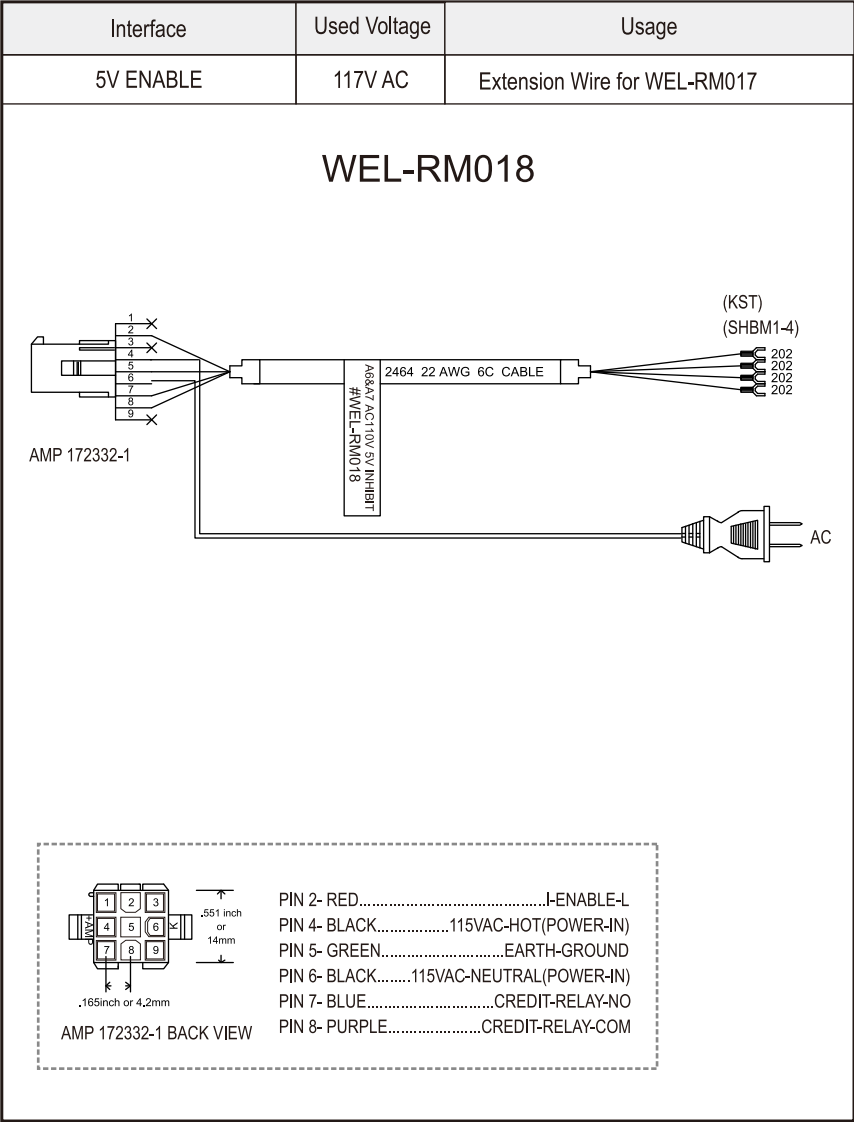
5-1 FIG.04



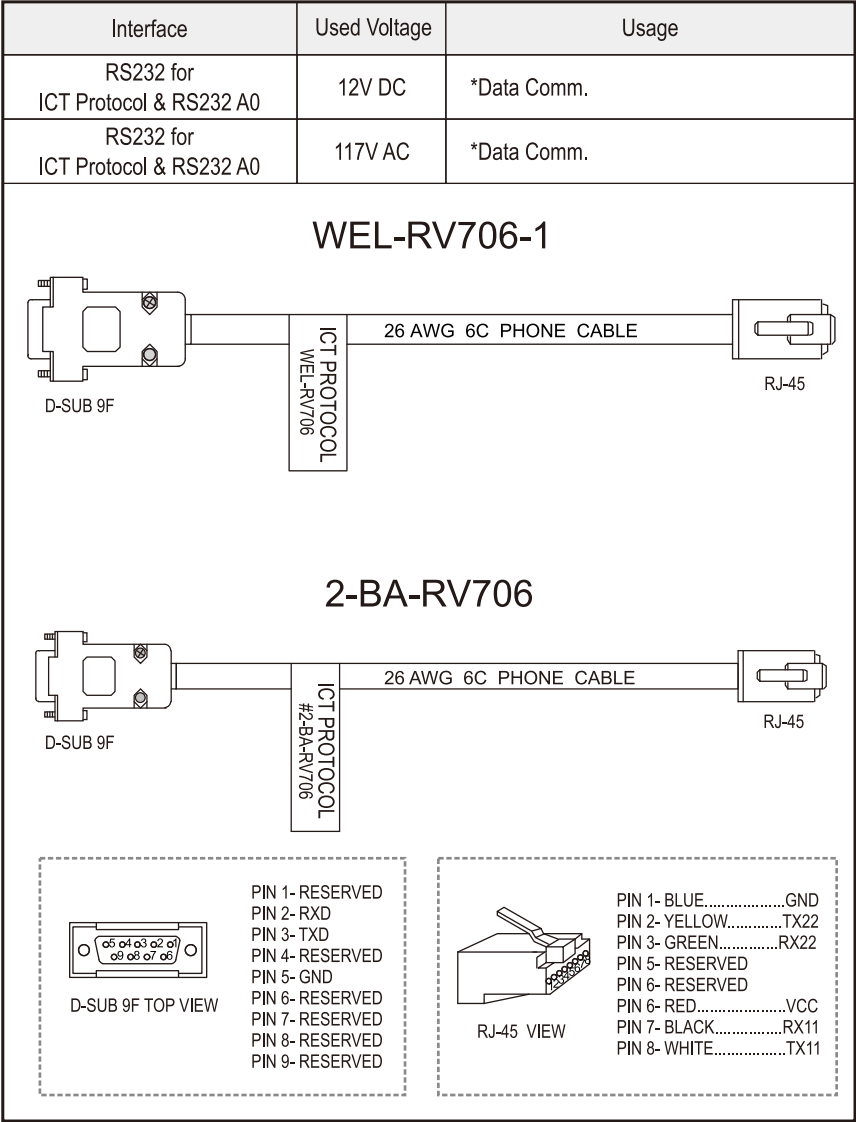
5-1 FIG.05



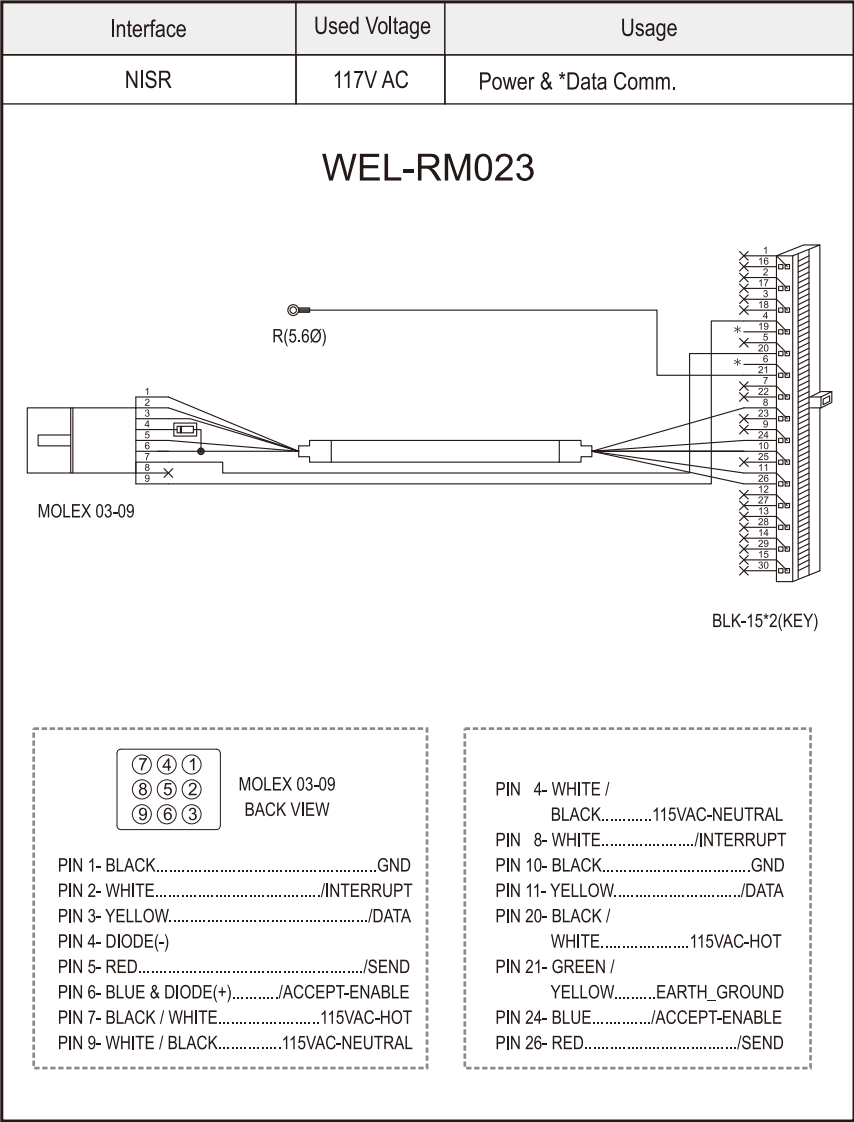
5-1 FIG.06



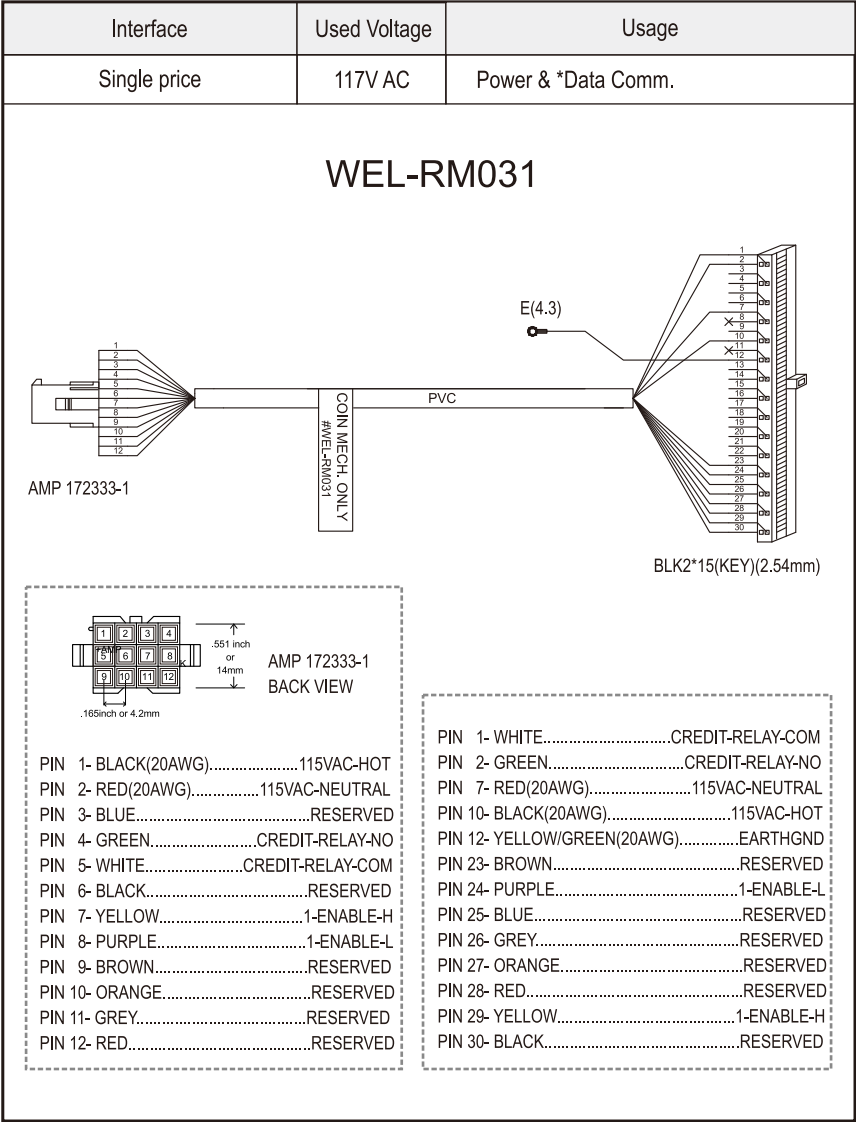
5-1 FIG.07



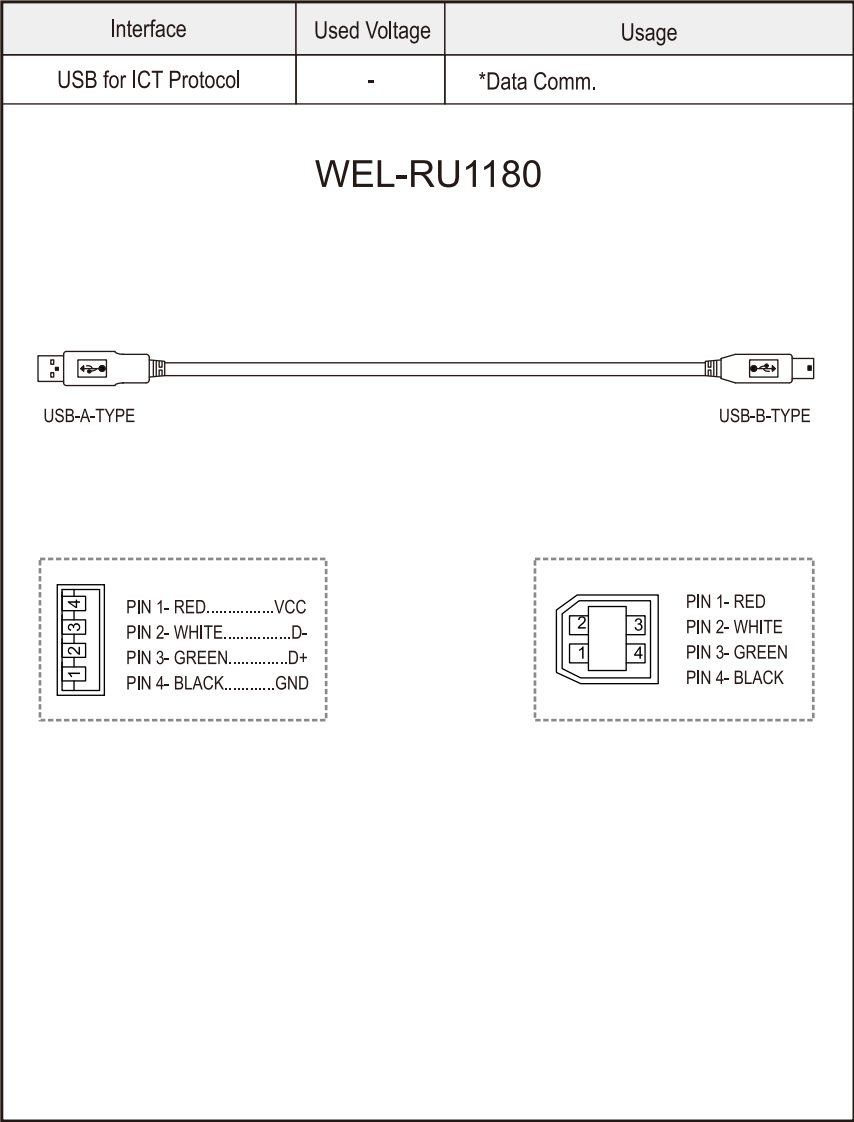
5-1 FIG.08



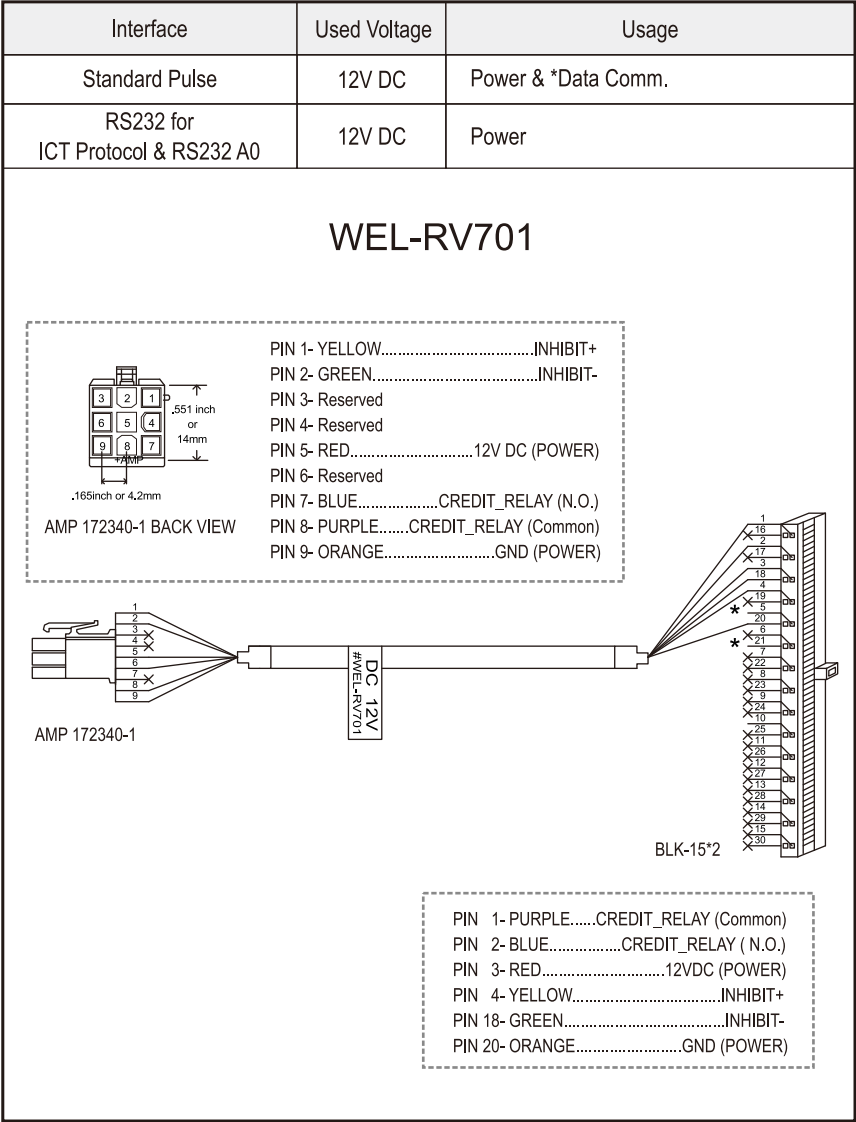
5-1 FIG.09



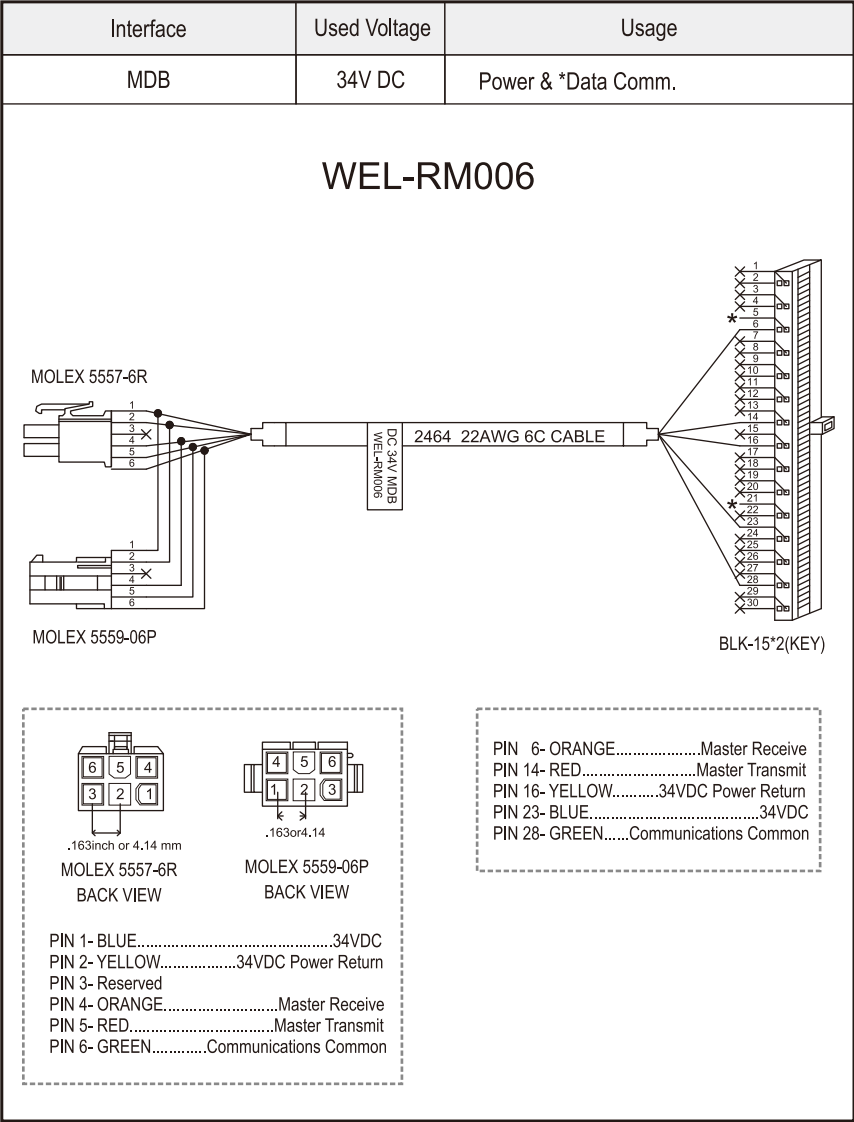
5-1 FIG.10



5-1 FIG.11



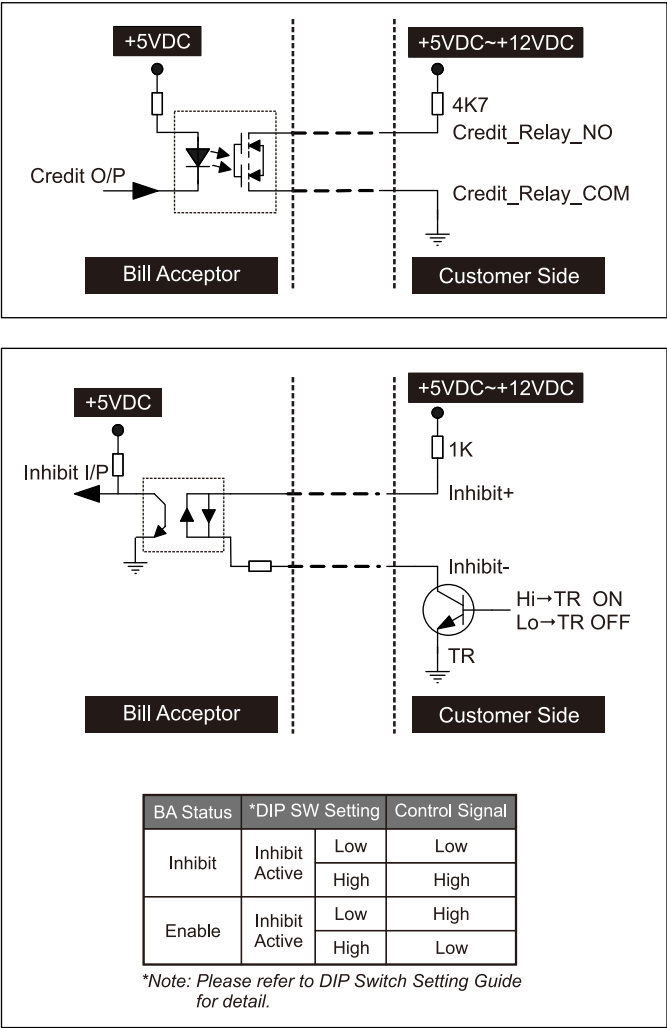
5-1 FIG.12



5-1-1. I/O Circuit

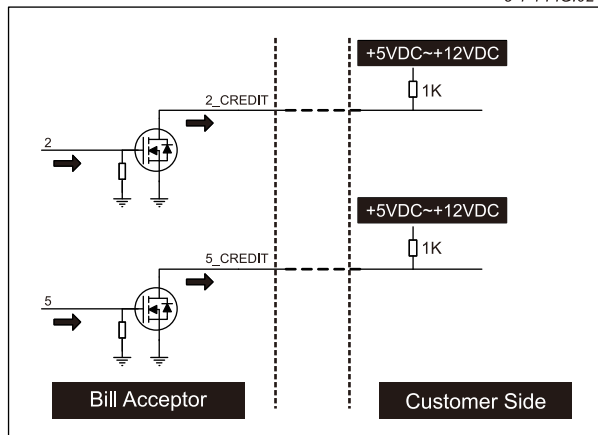
Pulse Interface.

5-1-1 FIG.01



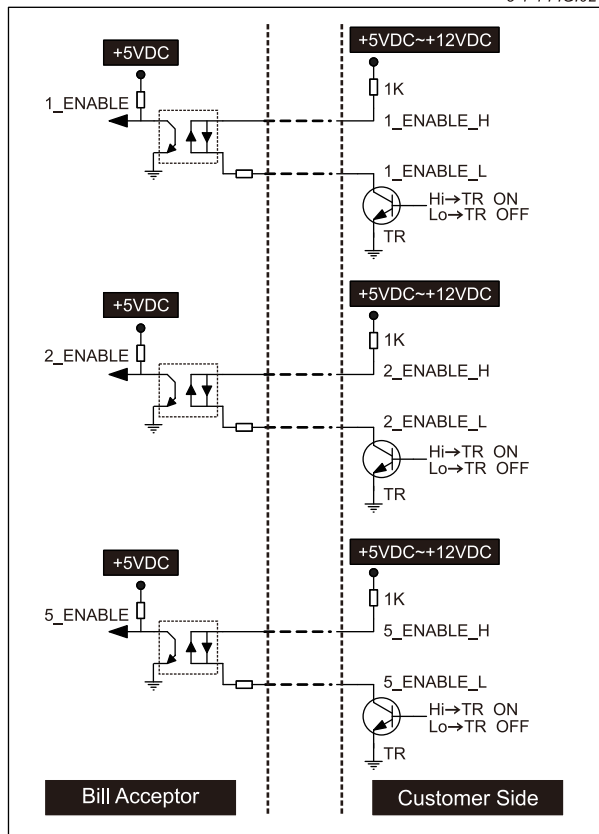
5V Enable Interface-1

5-1-1 FIG.02-1



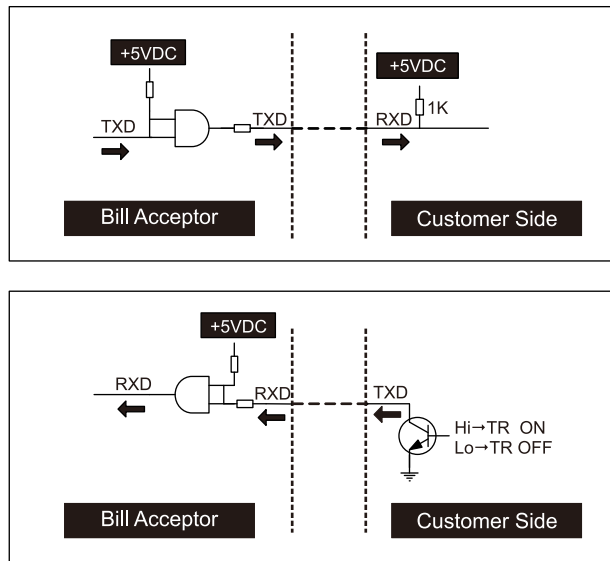
5V Enable Interface-2

5-1-1 FIG.02-2



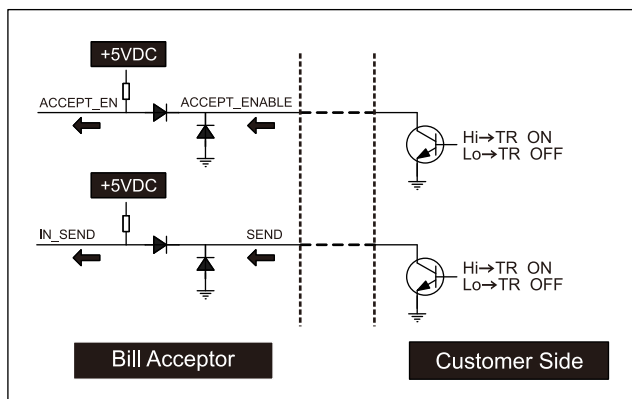
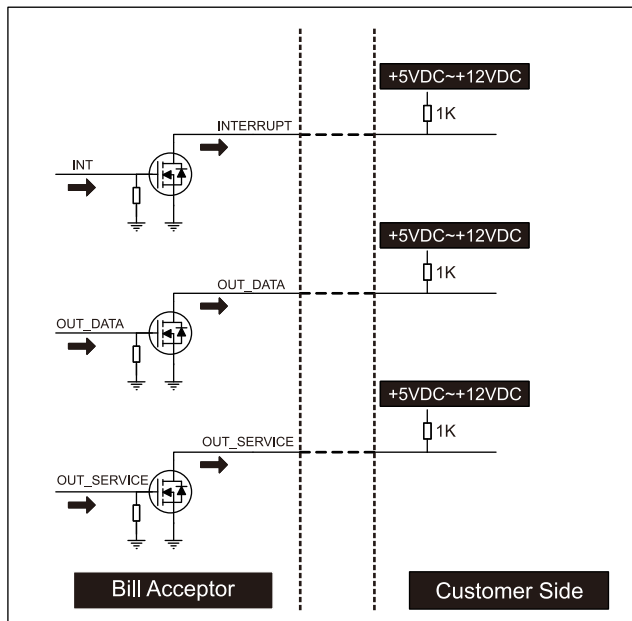
ICT Protocol Interface.

5-1-1 FIG.03



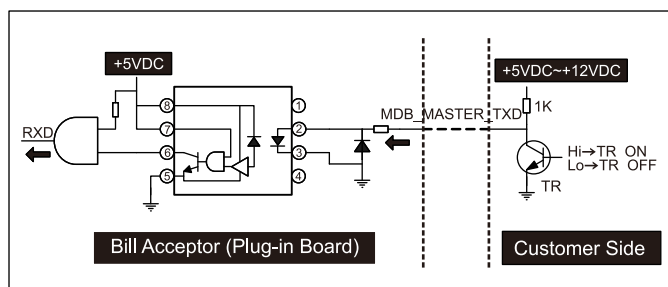
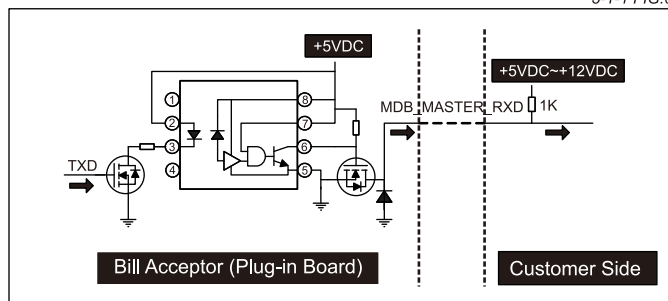
NISR Interface.

5-1-1 FIG.04



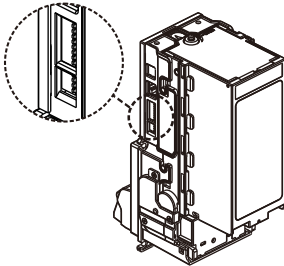
MDB Interface.

5-1-1 FIG.05

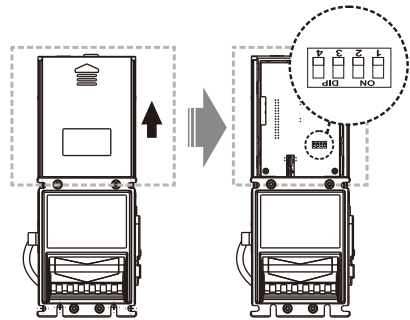


5-2. DIP Switch Setting

There are two serial DIP switches which are located on the side of TAO-A/V I (as FIG.01). According to different currencies which are used by users, DIP switch settings could be varied to fit users' needs. Besides, there's also a serial DIP switches on CPU board inside of TAO-A/V I for interface settings (as FIG.02). Please refer to "TAO-A/V DIP Switch Setting" Guide in the package for more details.



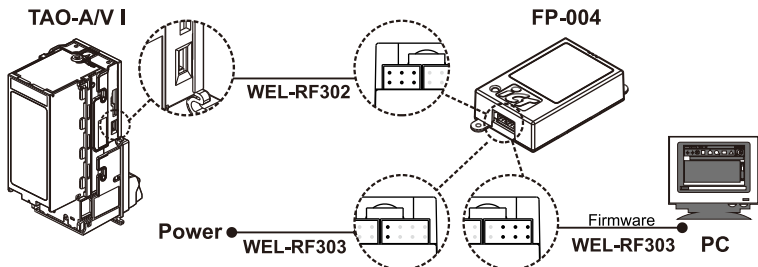
5-2 FIG.01



5-2 FIG.02

5-3. Software Download and Upgrade

To download and upgrade the software to TAO-A/V I, 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.



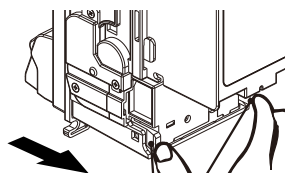
Power must be applied to Bill Acceptor after connecting.

6. Maintenance

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

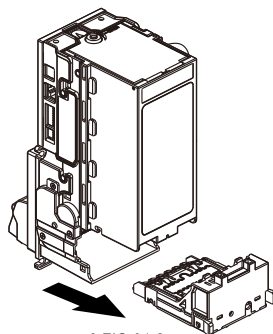
To clean the internal parts:

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



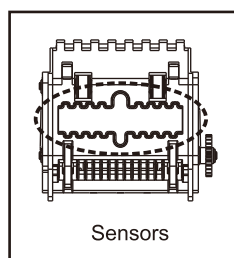
Buttons

6 FIG.01-1

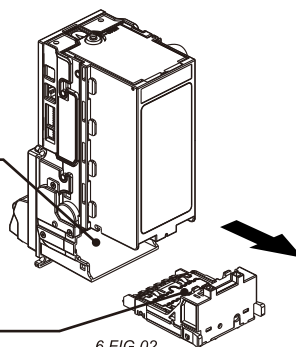


6 FIG.01-2

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



Sensors



6 FIG.02

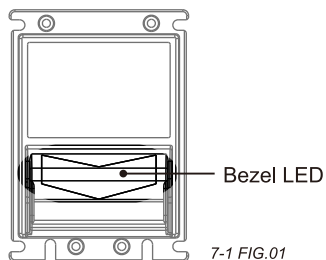


Maintenance Notice
(Any improper maintenance will result invalid warranty.)

Recommended	Mild, non-abrasive, soap water.
DO NOT USE	Organic solvent , Alcohol, Volatile liquid.

7. Troubleshooting

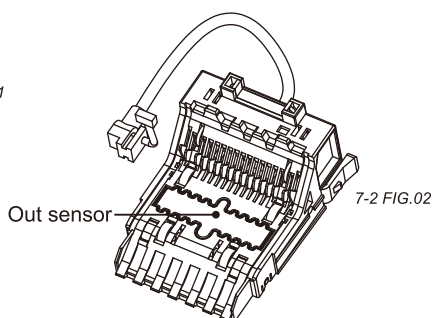
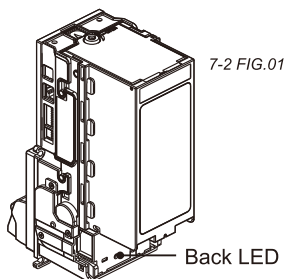
7-1. Bezel LED Errors



7-1 TABLE 01

LED Flashes		Status	Correct Actions
Red	Green		
	1	White Card Calibration	Please calibrate with ICT white calibration card.
1		Bill jammed.	Remove the bill box by sliding the top button and the bill path (refer to page 30), and then remove the jammed bill.
2		Disable.	Inspect the right DIP switch setting.
3		Recognition sensor module error.	Inspect the foreign objects on sensor or bill path and clean.
3+2		Hook sensor error.	Inspect the foreign objects on security hook and clean.
3+4		Out sensor error. (as FIG.02)	Inspect the foreign objects on sensor or bill path and clean.
4		Anti-string sensor error or a stringing attempt has detected.	Inspect the foreign objects on sensor or bill path and clean.
5		Bill box has been removed.	Replace the bill box.
6		Stacker error or stacker full.	Empty the bill box.
7		Motor error.	Inspect the foreign objects on bill path and clean.

7-2. Back LED Errors



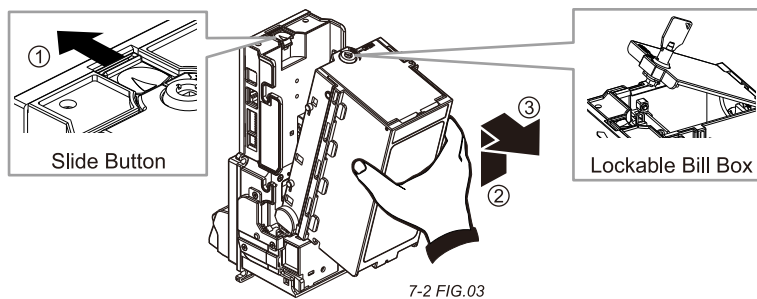
7-2 TABLE 01

LED Flashes	Status	Corrective Actions
Green		
1	White Card Calibration	Please calibrate with ICT white calibration card.
1	Bill jammed.	Remove the bill box by sliding the top button and the bill path (refer to page 30), and then remove the jammed bill.
2	Disable.	Inspect the right DIP switch setting.
3	Recognition sensor module error.	Inspect the foreign objects on sensor or bill path and clean.
3+2	Hook sensor error.	Inspect the foreign objects on security hook and clean.
3+4	Out sensor error. (as FIG.02)	Inspect the foreign objects on sensor or bill path and clean.
4	Anti-string sensor error or a stringing attempt has detected.	Inspect the foreign objects on sensor or bill path and clean.
5	Bill box has been removed.	Replace the bill box.
6	Stacker error or stacker full.	Empty the bill box.
7	Motor error.	Inspect the foreign objects on bill path and clean.

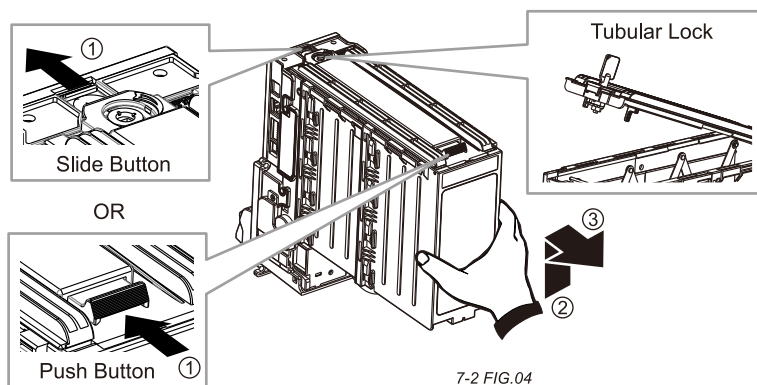


If the error can not be solved after corrective actions or happen again, please contact ICT for technical support.

◆ TAO-A/V I-P2/P5



◆ TAO-A/V I-P10





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

