



Bill Acceptor
XBA



Installation Guide

International Currency Technologies Corp.

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1. Introduction

1-1. Overview

The XBA Bill Acceptor equips with innovative wide-angle banknote insertion technology to offer superior acceptance rate of 98% or higher. With the outstanding design, the XBA has the ability to provide very high degree of immunity to strong ambient light, and the advanced optical/ mechanical anti-fishing structure for better investment protection. The built-in USB port allows firmware upgrades via USB flash drive conveniently.

1-2. Features

- Auto-calibration, multi-color optical sensor.
- Allow bill insertion from very wide angle.
- Immune to strong ambient light.
- Advanced optical/mechanical anti-fishing structure.
- Power saving function.
- High MTBF.
- Support firmware upgrade through USB Flash Disk.
- Support Firmware upgrade through MDB-FTL, and IrDA.
- Works under severe weather condition.
- Support connect with Coin Changer.

2. Specifications

General

Acceptance Rate 98% or greater

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

Bill Insertion Four way acceptable

Transaction Speed Approx. 2.5 s to stack

Interface Pulse, MDB, ICT Protocol, ccNet, JPSTD, ccTalk, RS232 A0, GPT Parallel

Installation Indoor & Outdoor

Electrical

Power Source 12V DC $\pm 10\%$
24V DC $\pm 10\%$
34V DC $\pm 10\%$
24V AC $\pm 10\%$

Power Consumption Normal Mode-
Standby : 0.15A, 1.8W
Operation: 1.0A, 12W
Maximum: 2A, 24W
Power Saving Mode-
Mode 1: 50 μ A
Mode 2: 15 μ A

Operation Environment Operating Temperature: -20°C~60°C
Storage Temperature: -30°C~70°C
Humidity: 30%~95%RH
(no condensation)

Mechanical

Outline Dimension

Refer to page.5

Bill Capacity

Approx. 200 bills
400 bills
600 bills
1000 bills

Weight

Approx. 1.5kg

Bill Accepted Width

62~77mm

3. Packing List

Main

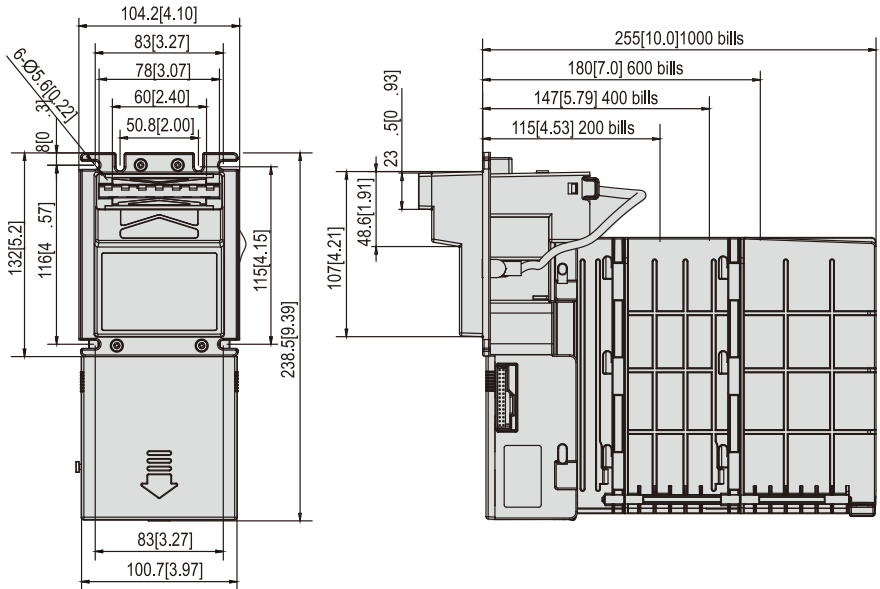
Bill Acceptor

Accessory

Harnesses: Refer to 5-1
XBA Installation Guide
XBA Switches Setting Guide

4. Dimension

Standard plastic Bezel

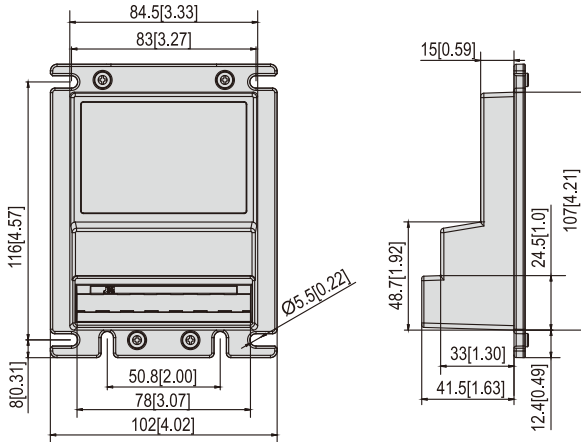


Unit : mm [inch]

4 FIG.01

Bezel

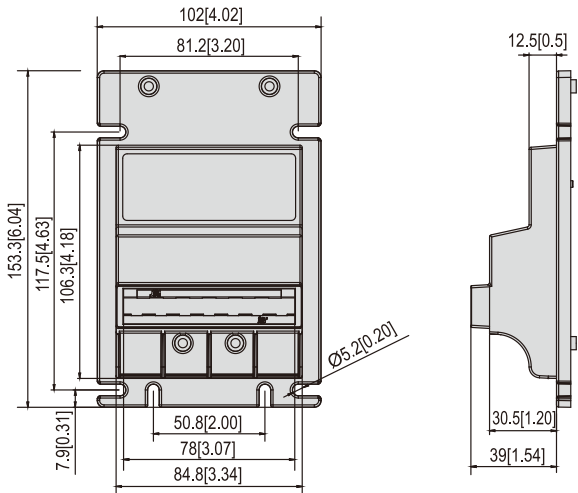
Standard Metal Bezel Part No. 3ZMB-FAC45000



Unit : mm [inch]

4 FIG.02

TOB Bezel Part No. 3ZMB-FAC41000



Unit : mm [inch]

4 FIG.03

5. Installation

5-1. Harness Application

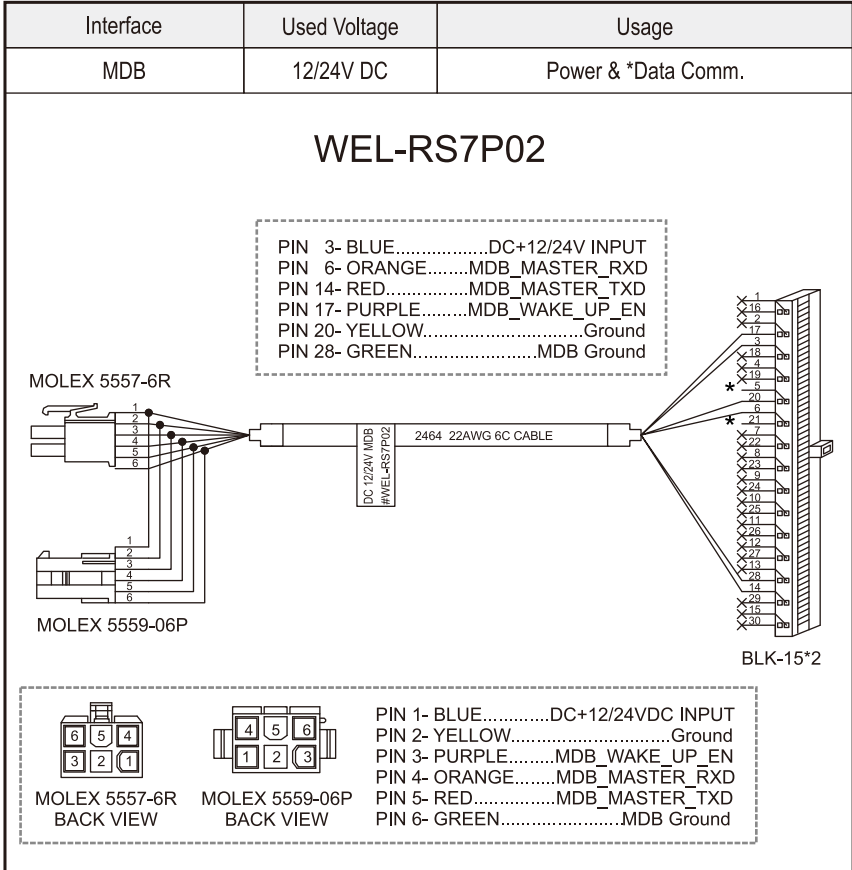
5-1 TABLE 01

Interface	CPU Board	Used Voltage	Mode	Usage	Harness	Page
MDB	399Axx	12/24V DC	Sleep	Power & *Data comm.	WEL-RS7P02	8
		24V AC/ 34V DC	Normal		WEL-RM006	9
Pulse	399Axx and 399Mxx	12V DC	Normal	Power & *Data comm.	WEL-RV701	10
				Extension Wire	CU-R961	11
	399Axx	24V AC	Normal	Power & *Data Comm.	WEL-RV703	12
				Extension Wire	WEL-RV702	13
ICT Protocol	399Axx and 399Mxx	12V DC	Normal	Power & *Data Comm.	WEL-RXBA18	14
ccNet				Extension Wire	CU-R961	11
RS232 A0						
JPSTD	399Mxx	24V DC	Normal	Power & *Data comm.	WEL-RXBA20	15
ccTalk		**12/24V DC	Normal	Power & *Data comm.	WEL-RXBA21	16
GPT Parallel	399Axx	24V DC	Normal	Power & *Data comm.	5RGB-AA203L1-03-1	17

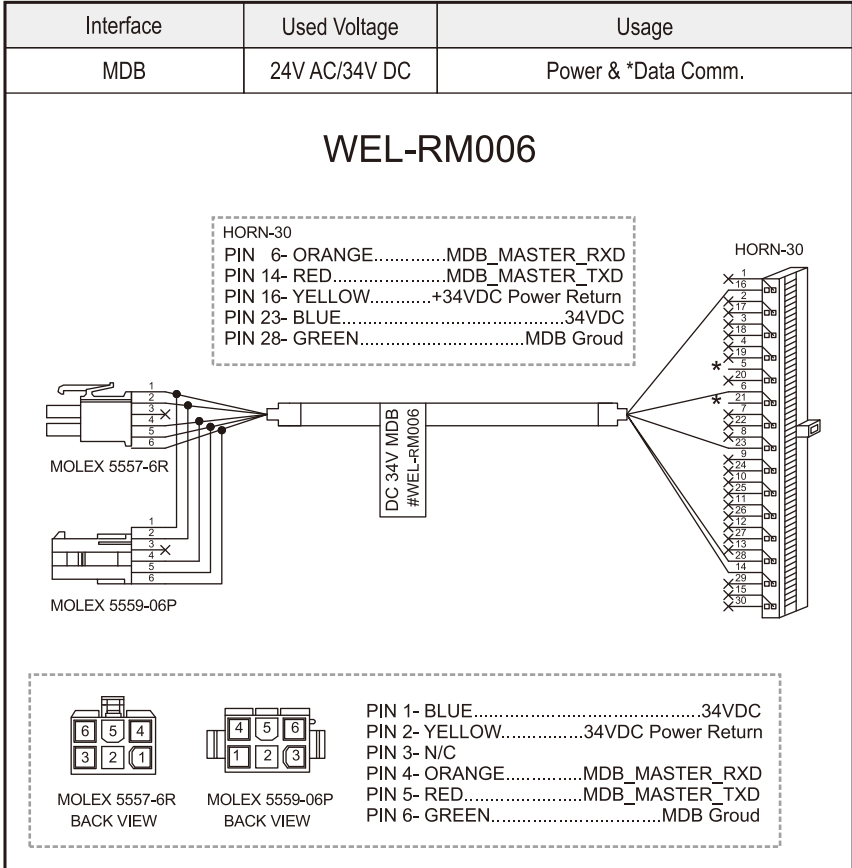
*Date Comm.: Data Communication.

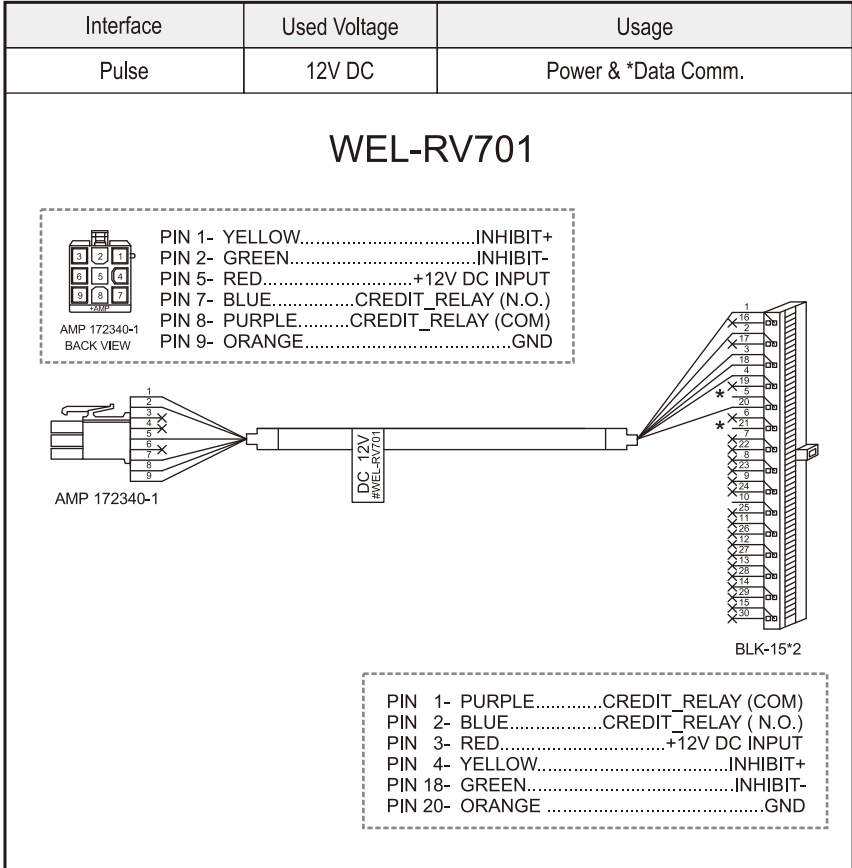
**XBA ccTalk supports 12/24V DC from CPU board number "399M30" (399M20 or before, support 12V DC only).

5-1 FIG.02



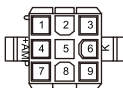
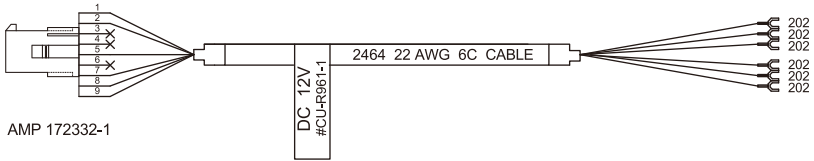
5-1 FIG.03



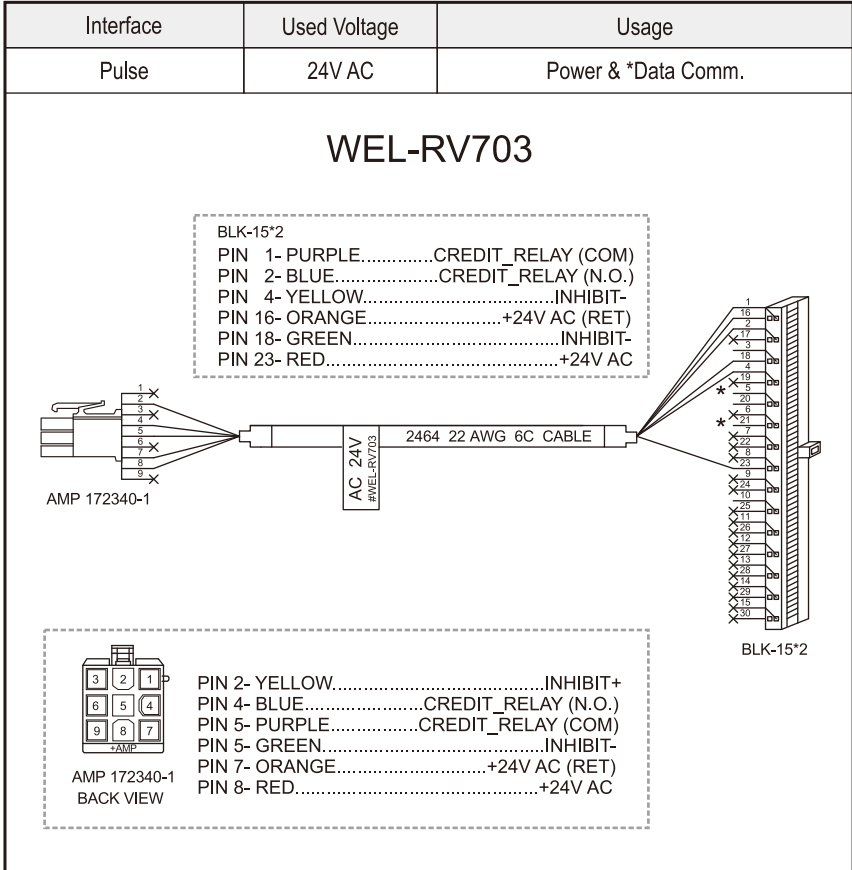


Interface	Used Voltage	Usage
Pulse	12V DC	Extension Wire for WEL-RV701
ICT Protocol	12V DC	Extension Wire for WEL-RXBA18
ccNet		
RS232 A0		

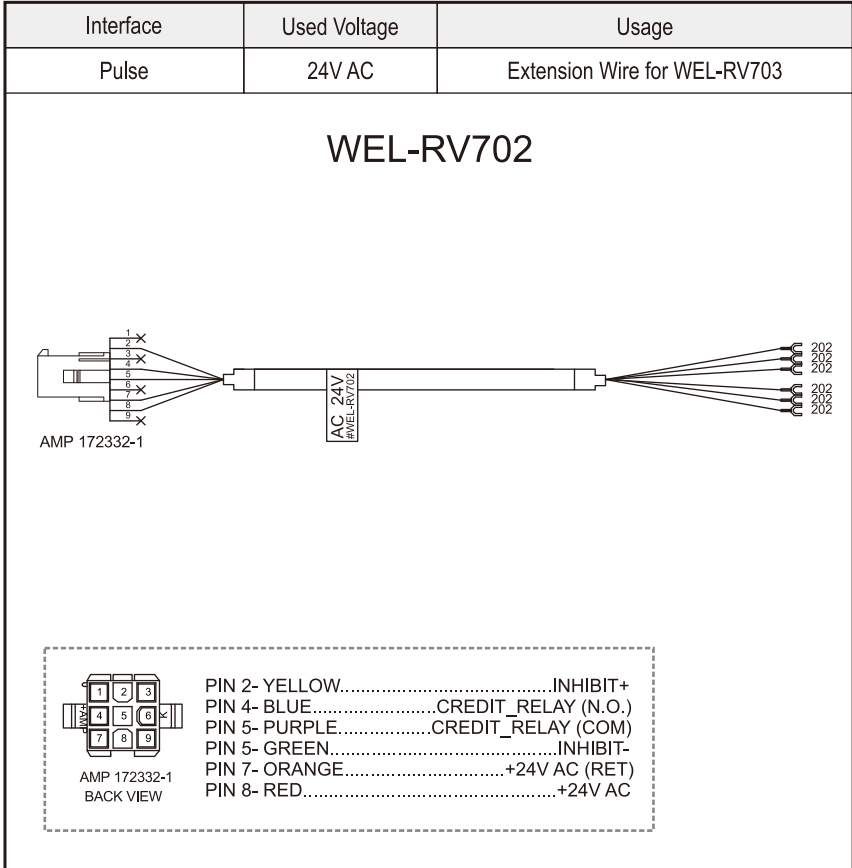
CU-R961-1



- PIN 1- YELLOW.....INHIBIT+
- PIN 2- GREEN.....INHIBIT-
- PIN 5- RED.....+12VDC INPUT
- PIN 7- BLUE.....CREOIT-RELAY(N.O.)
- PIN 8- PURPLE.....CREDIT-RELAY(COM)
- PIN 9- ORANGE.....GND




5-1 FIG.07



Interface	Used Voltage	Usage
ICT Protocol	12V DC	Power & *Data Comm.
ccNet		
RS232 A0		

WEL-RXBA18

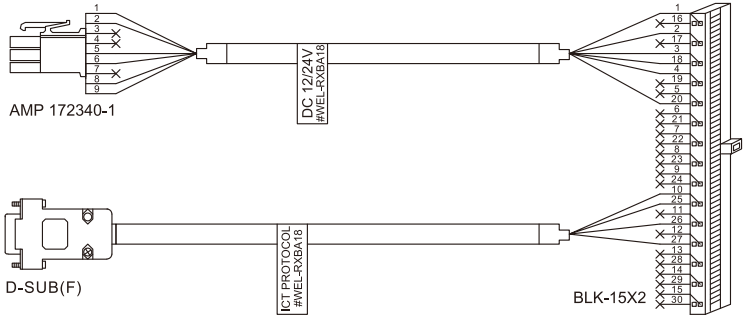


AMP 172340-1
BACK VIEW

PIN 1- YELLOWINHIBIT+
 PIN 2- GREEN.....INHIBIT-
 PIN 5- RED.....+12V DC INPUT
 PIN 7- BLUE.....CREDIT RELAY(N.O.)
 PIN 8- PURPLE.....CREDIT RELAY(COM)
 PIN 9- ORANGE.....GND

BLK-15X2

PIN 1- PURPLECREDIT RELAY(COM)
 PIN 2- BLUE.....CREDIT RELAY(N.O.)
 PIN 3- RED.....+12V DC INPUT
 PIN 4- YELLOW.....INHIBIT+
 PIN 18- GREEN.....INHIBIT-
 PIN 20- ORANGE.....GND





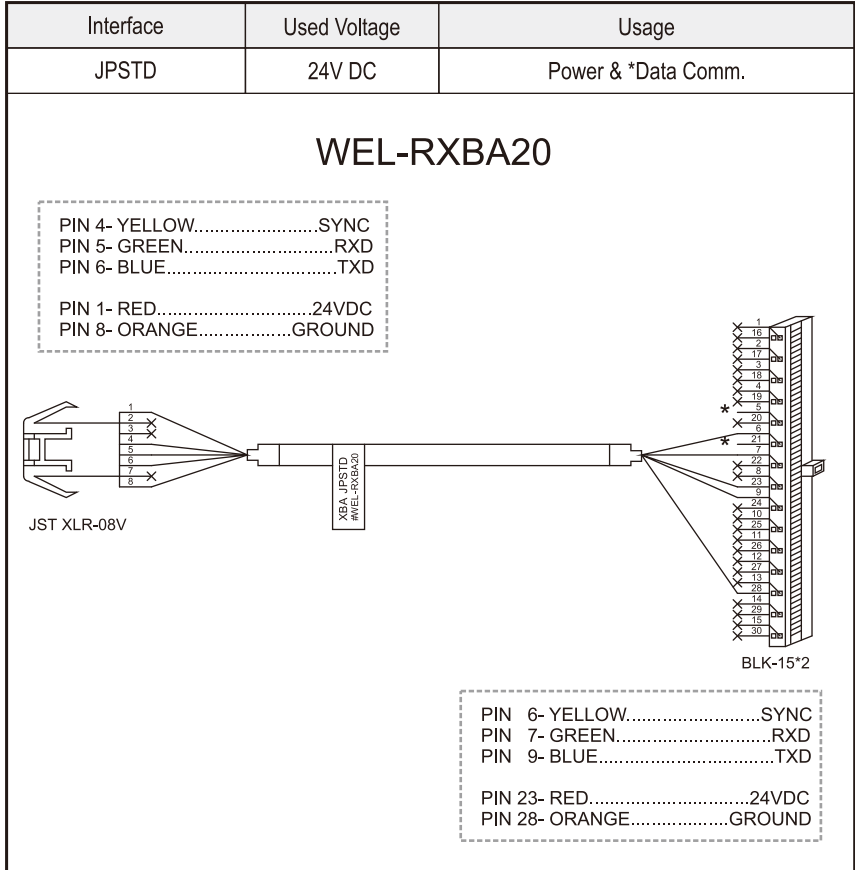
D-SUB 9F TOP VIEW

PIN 2- RXD
 PIN 3- TXD
 PIN 5- GND

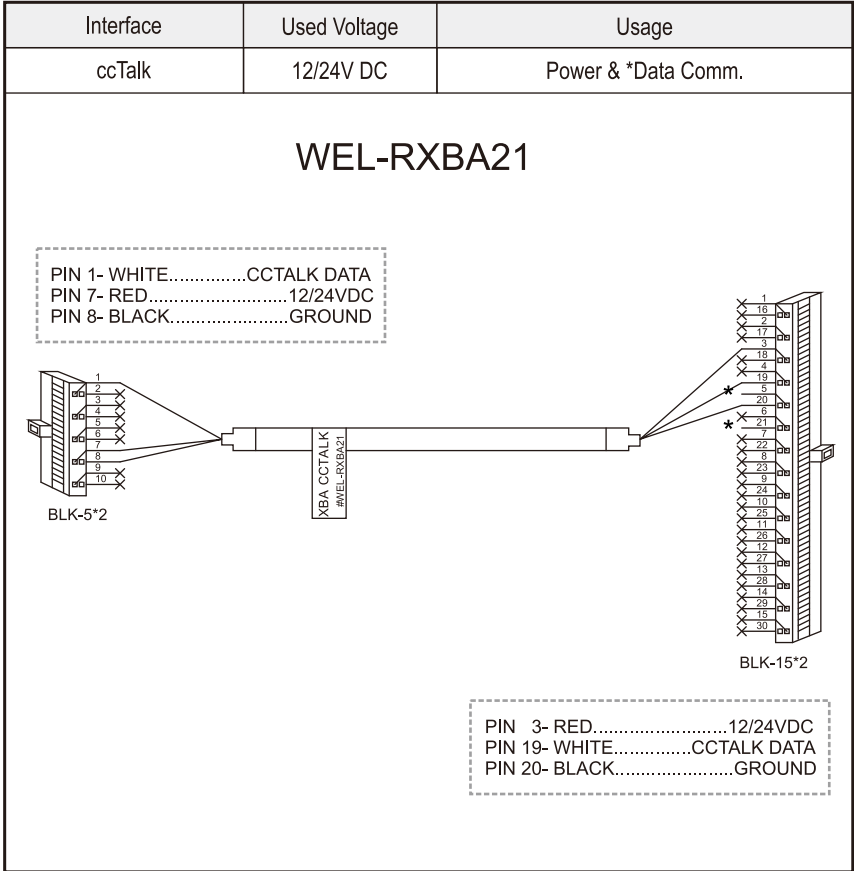
BLK-15X2

PIN 10- YELLOW.....GND
 PIN 25- RED.....VCC
 PIN 26- WHITE.....TX11
 PIN 27- BLACK.....RX11

5-1 FIG.09

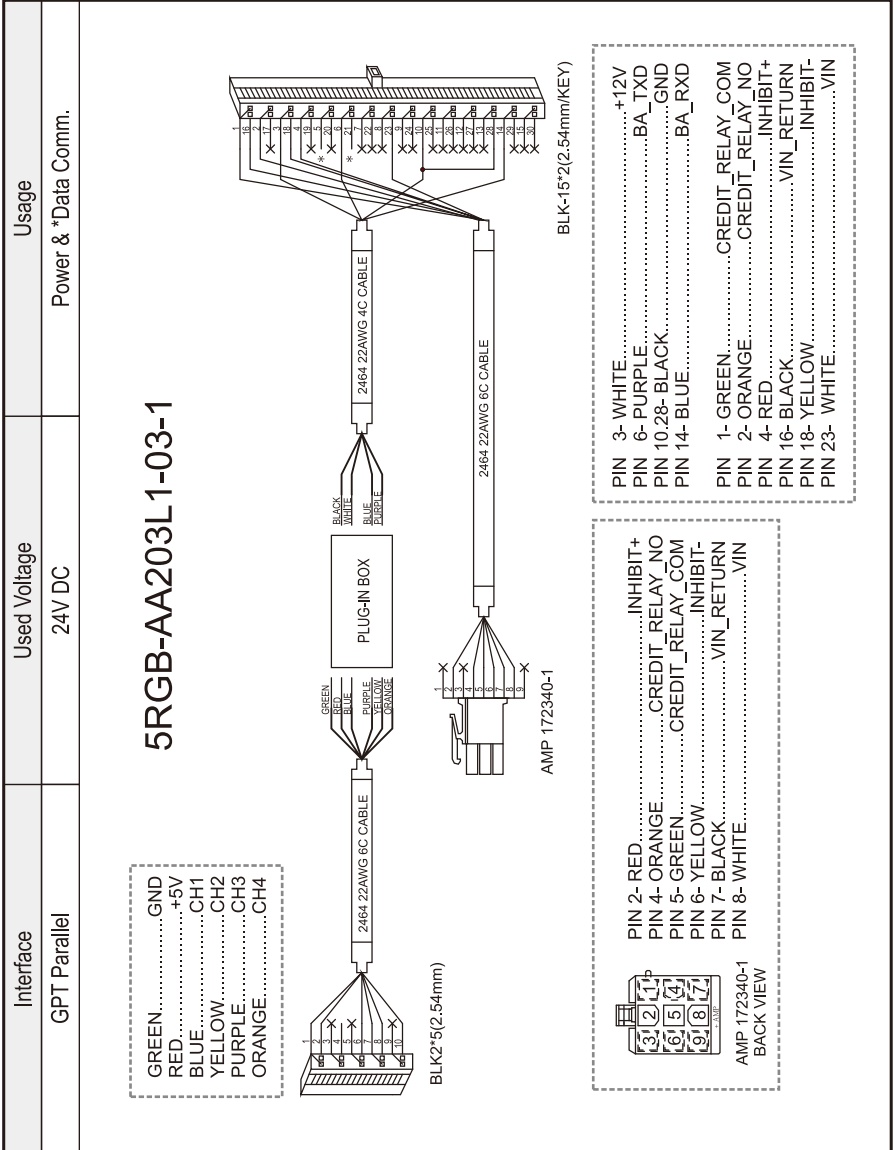


5-1 FIG.10



Note: XBA ccTalk supports 12/24V DC from CPU board number "399M30" (399M20 or before, support 12V DC only).

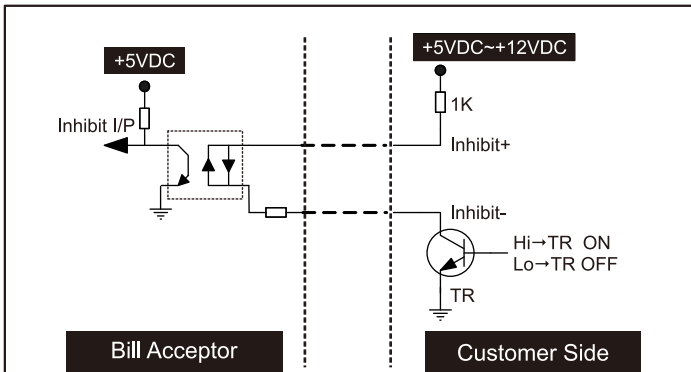
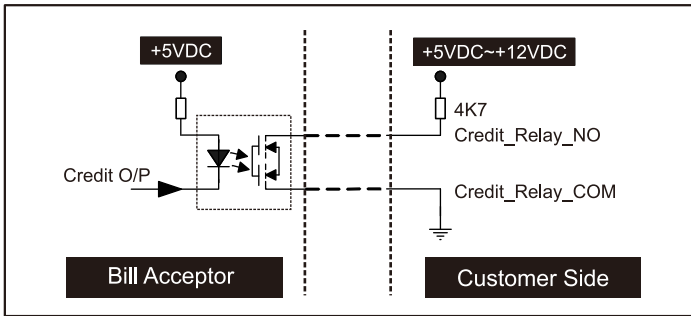
5-1 FIG. 11



5-1-1. I/O Circuit

Pulse Interface

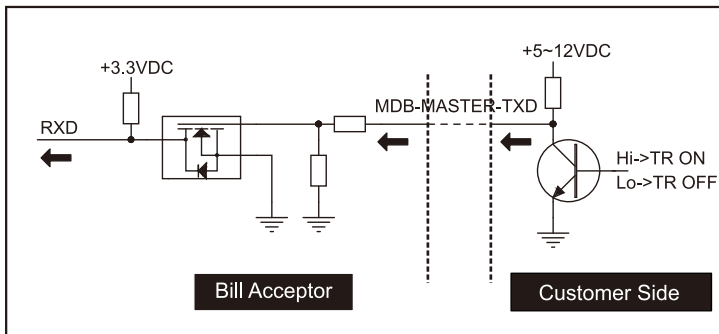
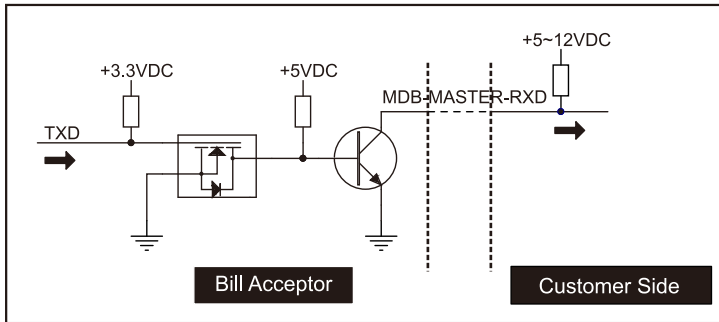
5-1-1 FIG.01



BA Status	DIP SW Setting	Control Signal
Inhibit	Inhibit Active	Low
		High
Enable	Inhibit Active	Low
		High

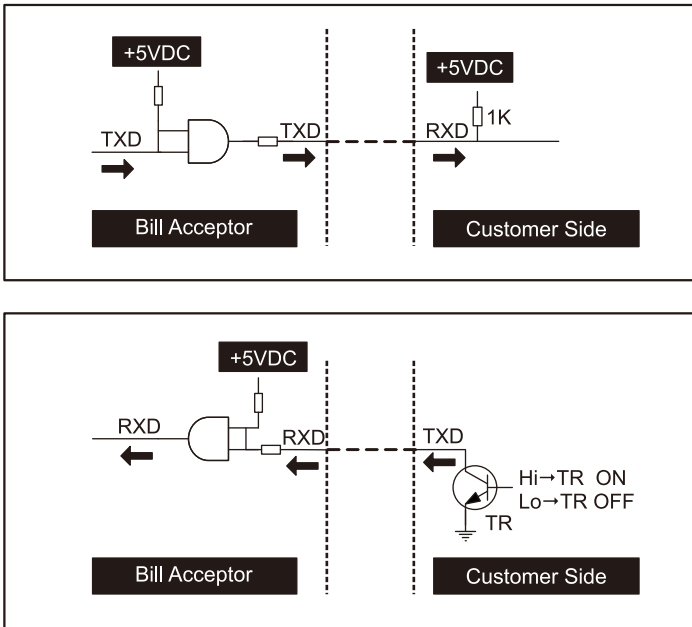
MDB Interface.

5-1-1 FIG.02



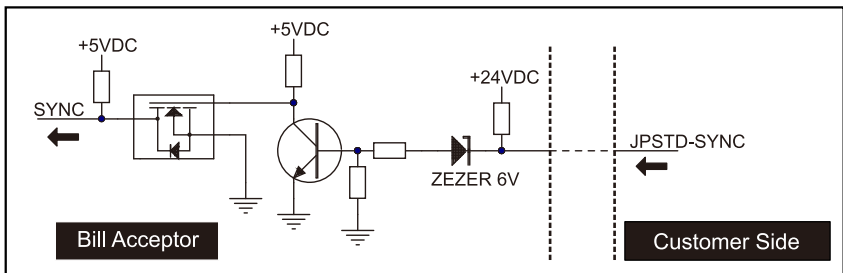
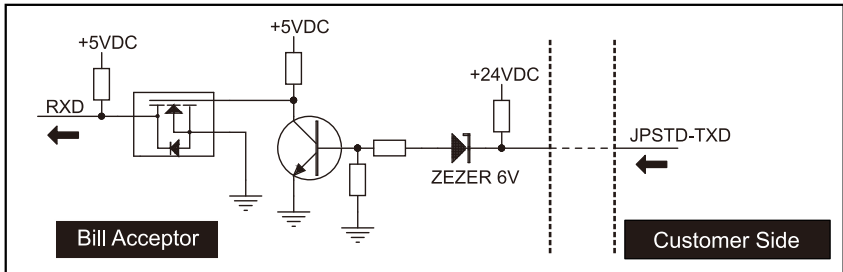
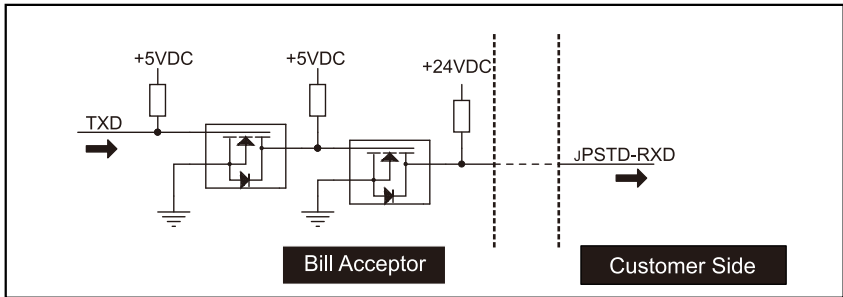
ICT-Protocol Interface.

5-1-1 FIG.03



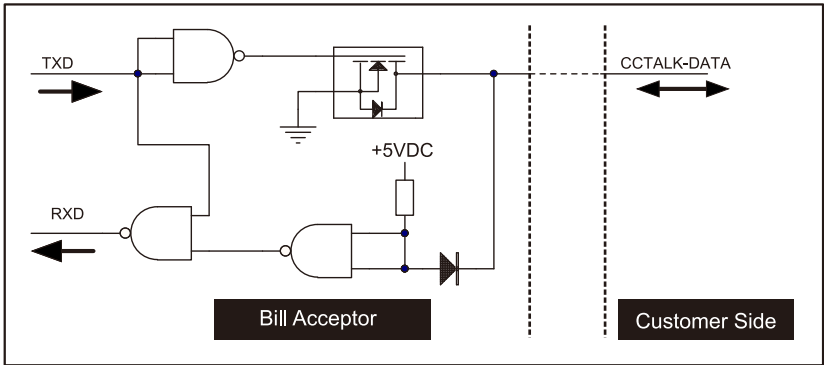
JPSTD Interface

5-1-1 FIG.04



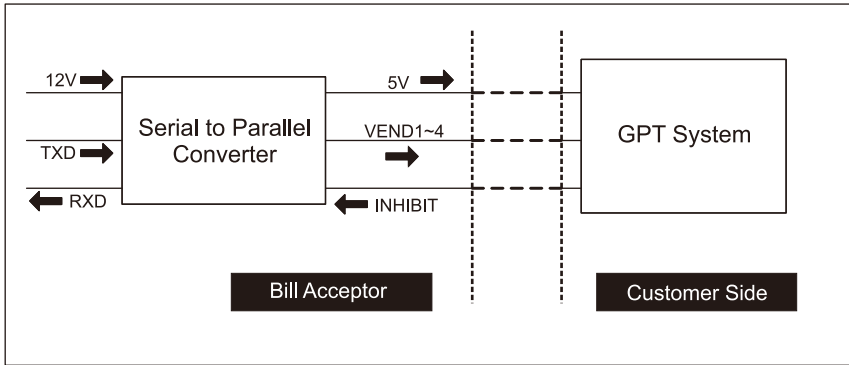
ccTalk interface

5-1-1 FIG.05



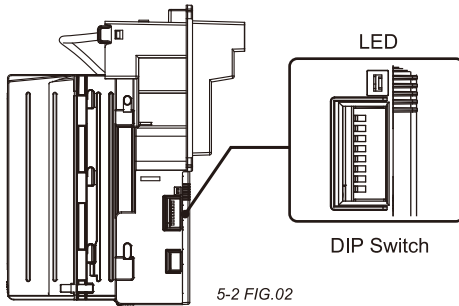
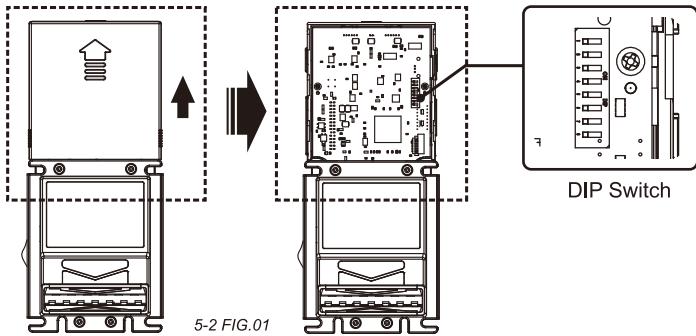
GPT Parallel Interface

5-1-1 FIG.06



5-2. DIP Switch Setting

Two dip switches are located on as 5-2 FIG.01 the CPU board, and as 5-2 FIG.02 the sides of XBA series.

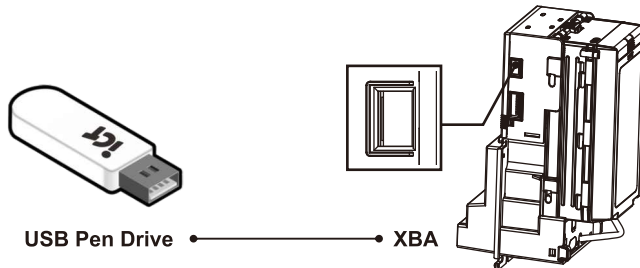


5-3. Firmware Download and Upgrade

Step 1 : Put the “XBAXxx.bin” file into your USB Pen Drive.



Step 2 : Turn off XBA, plug the USB Pen Drive into the USB connector on the XBA and then turn on the XBA.



Step 3 : The LED in the rear side of bill insertion module will flash twice, then remove the USB Pen Drive from XBA.

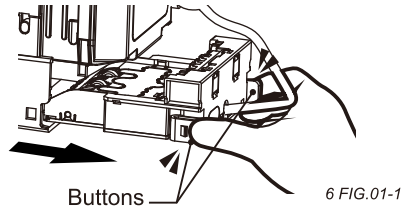
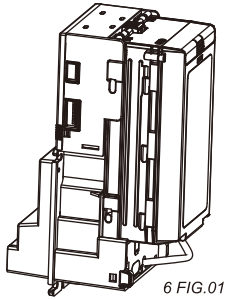
Step 4 : Wait for about 30sec., then XBA will automatically reset and standby for normal operation.

6. Maintenance

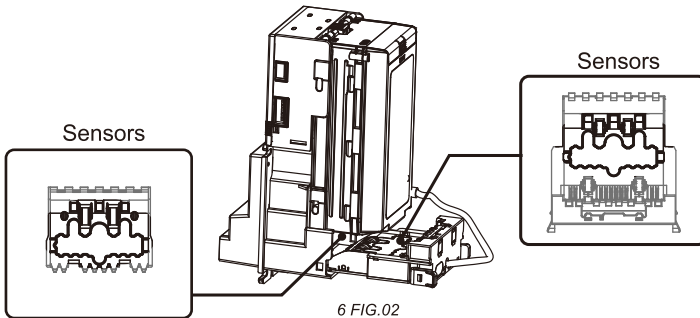
To make sure the bill acceptor always works smoothly, please clean the internal parts regularly.


To clean the internal parts:

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



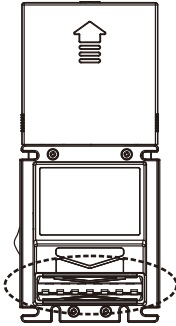
2. Use a soft, dry cloth or towel to clean the bill path and sensors.



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

7. Trouble Shooting

7-1. Bezel LED Errors



Bezel LED
7-1 FIG.01

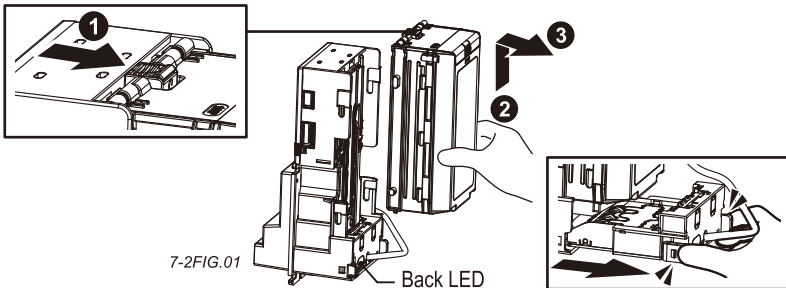
7-1 TABLE 01

LED Flashes		Status	Corrective 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 (as 7-2 FIG.01), 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	1	IR 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.
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
RED		
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 (as 7-2 FIG.01), 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+1	IR 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.
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 it recurs, please contact ICT for technical support.

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