ICT

Bill Acceptor

BS7

Installation Guide

International Currency Technologies Corp.

Use of Materials Limitations

ICT reserves the right at all times to disclose or to modify any information as ICT deems necessary to satisfy any applicable law, regulation, legal process or governmental request, or to edit, refuse to post or to remove any information or materials, in whole or in part, in ICT's sole discretion.

Contents

1. Introduction

1-1. Overview

BS7 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

- High Acceptance Rate up to 96%.
- Four way bill insertion acceptance.
- Numerous interfaces available.
- Easily Install & Maintain.

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	Pulse MDB Parallel A3 ICT Protocol

Electrical

Power Source	12V DC (11.4~12.6V DC) 24V AC (21.6~26.4V AC) 24V/34V DC (20V~42.5V DC)	
Power Consumption	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
	24V/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%~85RH(no condensation)	

Mechanical

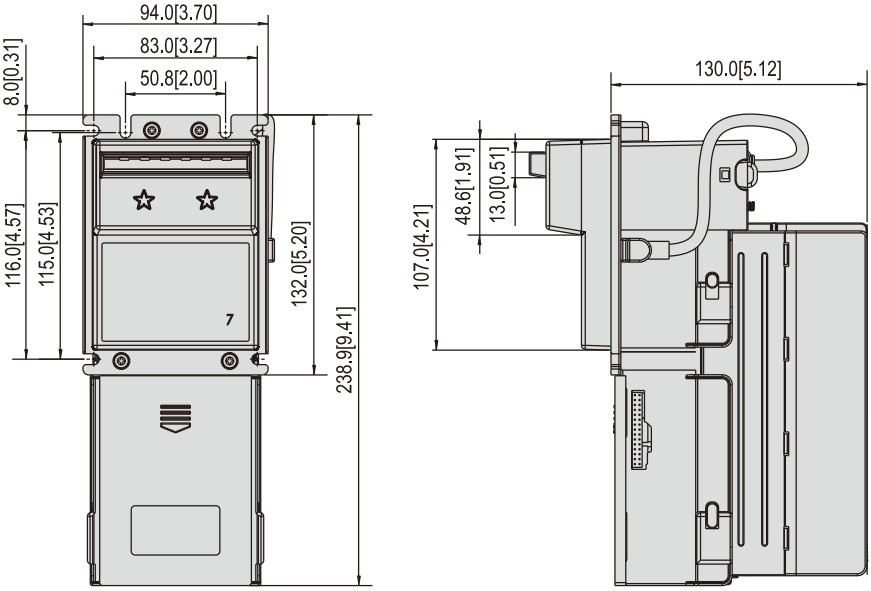
Bill Capacity	Approx. 400 bills (350~450)
Weight	Approx. 1.25kg
Outline Dimension	Refer to page.4

Installation: Indoor use only!!

3. Packing List

Main	Bill Acceptor
Accessory	Harnesses: Refer to 5-1 BS7 Installation Guide BS7 DIP Switch Setting Guide

4. Dimension



Unit : mm [inch]

4 FIG.01

5. Installation

5-1. Harness Application

5-1 TABLE 01

Interface	Used Voltage	Usage	Harness	Page
Standard Pulse	12V DC	Power & *Data Comm.	WEL-RV701	6
		Extension Wire	CU-R961-1	7
	24V AC	Power & *Data Comm.	WEL-RV703	8
		Extension Wire	WEL-RV702	9
MDB	24V/34V DC	Power & *Data Comm.	WEL-RM006	10
ICT Protocol (RS232)	12V DC	Power	WEL-RV701	6
		Extension Wire	CU-R961-1	7
		*Data Comm.	WEL-RV706-1 or 2-BA-RV706	11
Parallel A3	24V AC	Power & *Data Comm.	**5RBG-AA203L1-XX	12

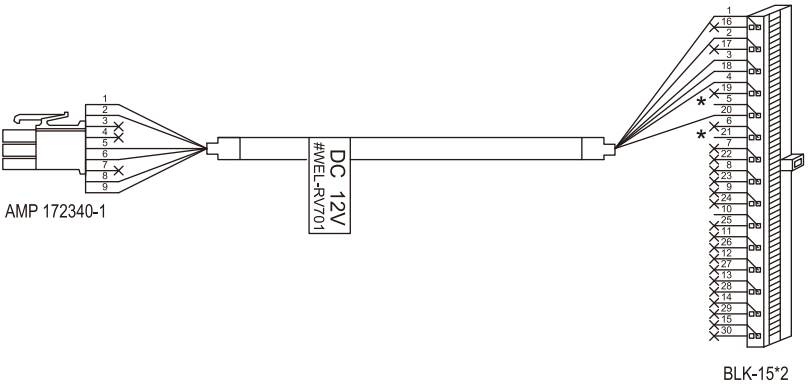
*Data Comm.: Data Communication.

**5RBG-AA203L1-xx: Plug-in Box & Cables, “XX” varies from version to version.

5-1 FIG. 01

Interface	Used Voltage	Usage
Pulse	12V DC	Power & *Data Comm.

WEL-RV701



AMP 172340-1
BACK VIEW

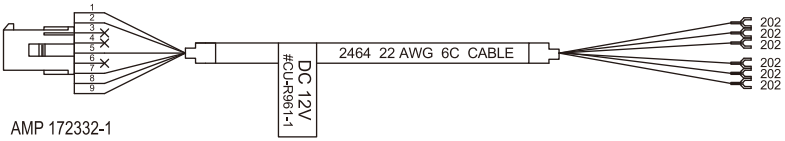
PIN 1- YELLOW.....INHIBIT+
PIN 2- GREEN.....INHIBIT-
PIN 3- RESERVED
PIN 4- RESERVED
PIN 5- RED.....12V DC (POWER)
PIN 6- RESERVED
PIN 7- BLUE.....CREDIT_RELAY (N.O.)
PIN 8- PURPLE.....CREDIT_RELAY (COMMON)
PIN 9- ORANGE.....GND (POWER)

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)

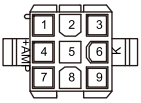
5-1 FIG. 02

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

CU-R961-1



AMP 172332-1



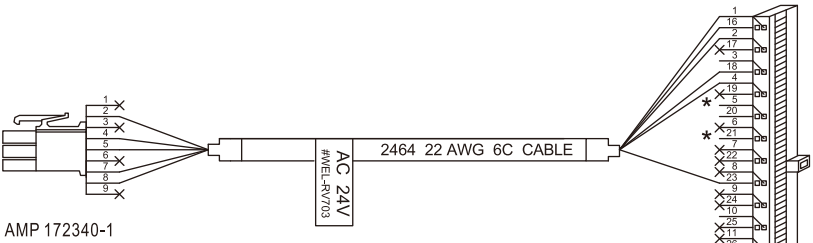
AMP 172332-1
BACK VIEW

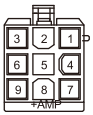
PIN 1- YELLOW.....INHIBIT+
PIN 2- GREEN.....INHIBIT-
PIN 5- RED.....+12VDC(POWER-IN)
PIN 7- BLUE.....CREOIT-RELAY-NO
PIN 8- PURPLE.....CREDIT-RELAY-COM
PIN 9- ORANGE.....GND(POWER-IN)

5-1 FIG. 03

Interface	Used Voltage	Usage
Pulse	24V AC	Power & *Data Comm.

WEL-RV703





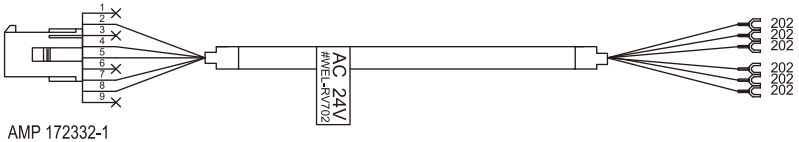
PIN 1- RESERVED
PIN 2- YELLOW.....INHIBIT+
PIN 3- RESERVED
PIN 4- BLUE.....CREDIT_RELAY (N.O.)
PIN 5- PURPLE & GREEN
.....CREDIT_RELAY (COMMON)
PIN 5- INHIBIT-
PIN 6- RESERVED
PIN 7- ORANGE.....24V AC (RET)
PIN 8- RED.....24V AC (HOT)
PIN 9- RESERVED

PIN 1- PURPLE.....CREDIT_RELAY (Common)
PIN 2- BLUE.....CREDIT_RELAY (N.O.)
PIN 4- YELLOW.....INHIBIT+
PIN 16- ORANGE.....24V AC (RET)
PIN 18- GREEN.....INHIBIT
PIN 23- RED.....24V AC (HOT)

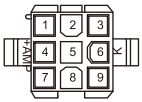
5-1 FIG. 04

Interface	Used Voltage	Usage
Pulse	24V AC	Extension Wire for WEL-RV703

WEL-RV702



AMP 172332-1



AMP 172332-1
BACK VIEW

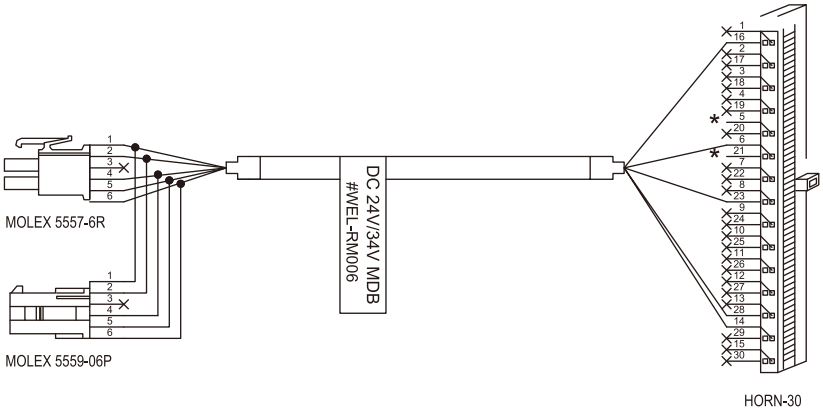
PIN 1- RESERVED
PIN 2- YELLOW.....INHIBIT+
PIN 3- RESERVED
PIN 4- BLUE.....CREDIT_RELAY (N.O.)
PIN 5- PURPLE & GREEN.....CREDIT_RELAY (COMMON)
PIN 5- PURPLE & GREEN.....INHIBIT
PIN 6- RESERVED
PIN 7- ORANGE.....24V AC (RET)
PIN 8- RED.....24V AC (HOT)
PIN 9- RESERVED

YELLOW.....INHIBIT+
BLUE.....CREDIT_RELAY (N.O.)
PURPLE.....CREDIT_RELAY (Common)
GREEN.....CREDIT_RELAY (Common)
ORANGE.....24V AC (RET)
RED.....24V AC (HOT)

5-1 FIG. 05

Interface	Used Voltage	Usage
MDB	24V/34V DC	Power & *Data Comm.

WEL-RM006



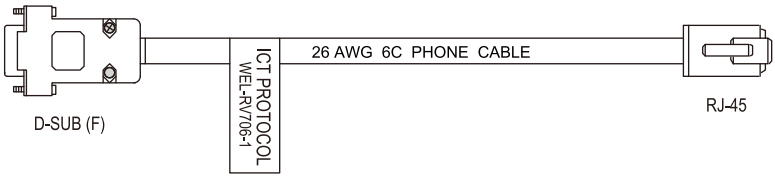
PIN 1- BLUE.....24V/34VDC
PIN 2- YELLOW.....POWER RETURN
PIN 3- N/C
PIN 4- ORANGE.....MDB_MASTER_RXD
PIN 5- RED.....MDB_MASTER_TXD
PIN 6- GREEN.....MDB GROUND

PIN 6- ORANGE.....MDB_MASTER_RXD
PIN 14- RED.....MDB_MASTER_TXD
PIN 16- YELLOW.....POWER RETURN
PIN 23- BLUE.....24V/34VDC
PIN 28- GREEN.....MDB GROUND

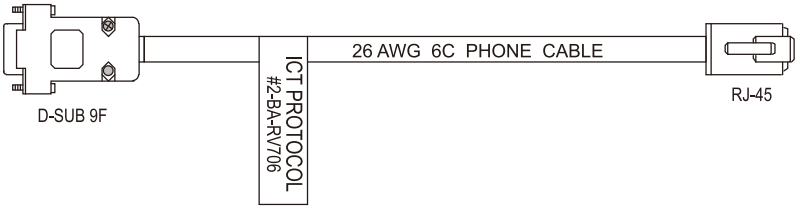
5-1 FIG. 06

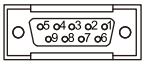
Interface	Used Voltage	Usage
ICT Protocol (RS232)	12V DC	*Data Comm.

WEL-RV706-1



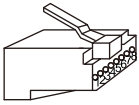
2-BA-RV706





D-SUB 9F TOP VIEW

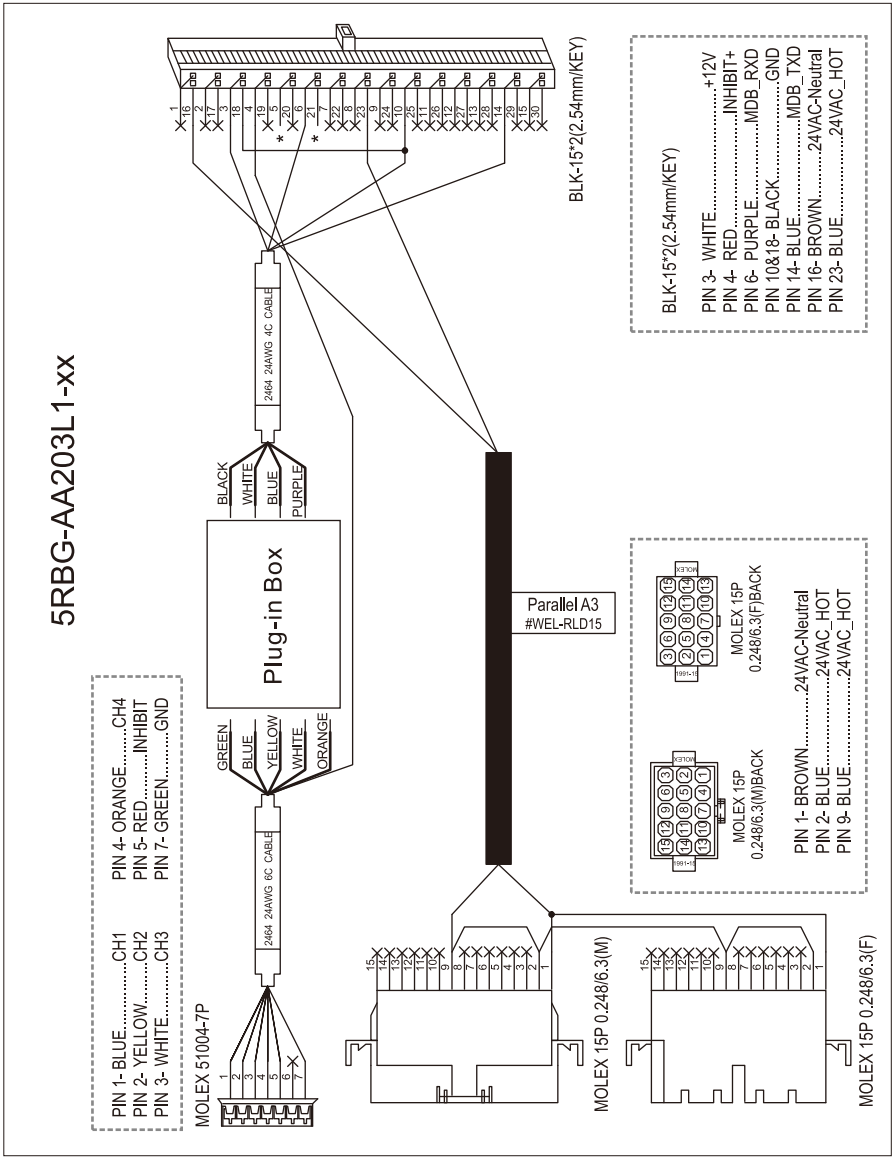
PIN 1- RESERVED
PIN 2- RXD
PIN 3- TXD
PIN 4- RESERVED
PIN 5- GND
PIN 6- RESERVED
PIN 7- RESERVED
PIN 8- RESERVED
PIN 9- RESERVED



RJ-45 VIEW

PIN 1- BLUE.....GND
PIN 2- YELLOW.....TX22
PIN 3- GREEN.....RX22
PIN 4- X.....RESERVED
PIN 5- X.....RESERVED
PIN 6- RED.....VCC
PIN 7- BLACK.....RX11
PIN 8- WHITE.....TX11

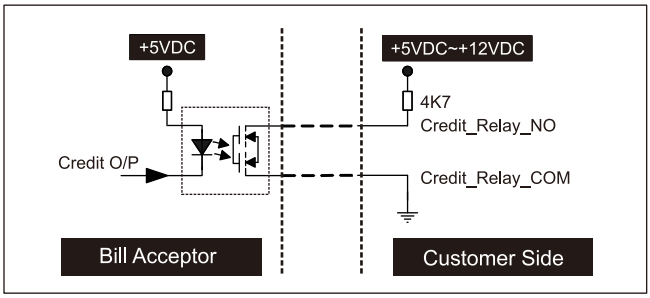
5-1 FIG. 07

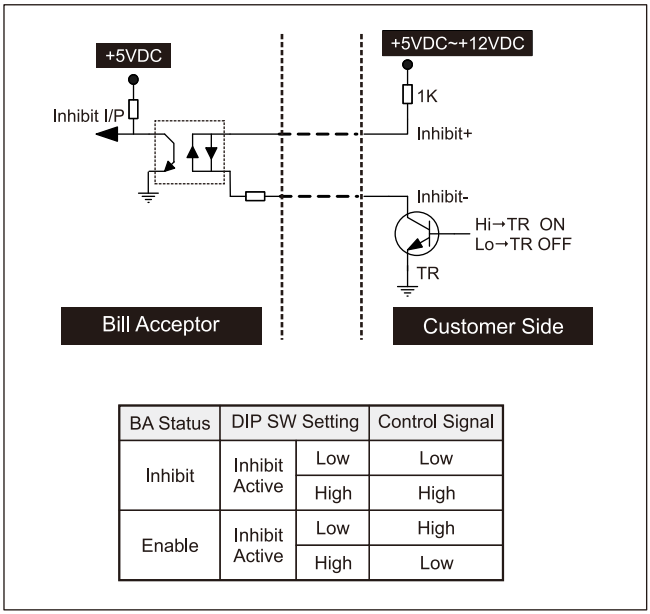

5RBG-AA203L1-xx
PIN 1- BLUE.....CH1
PIN 2- YELLOW.....CH2
PIN 3- WHITE.....CH3
PIN 4- ORANGE.....CH4
PIN 5- RED.....INHIBIT
PIN 7- GREEN.....GND
MOLEX 51004-7P
2464 24AWG 6C CABLE
GREEN
BLUE
YELLOW
WHITE
ORANGE
Plug-in Box
BLACK
WHITE
BLUE
PURPLE
2464 24AWG 4C CABLE
Parallel A3
#WEL-RLD15
MOLEX 15P 0.248/6.3(M)
MOLEX 15P 0.248/6.3(F)
MOLEX 15P
0.248/6.3(M)BACK
MOLEX 15P
0.248/6.3(F)BACK
PIN 1- BROWN.....24VAC-Neutral
PIN 2- BLUE.....24VAC_HOT
PIN 9- BLUE.....24VAC_HOT
BLK-15*2(2.54mm/KEY)
BLK-15*2(2.54mm/KEY)
PIN 3- WHITE.....+12V
PIN 4- RED.....INHIBIT+
PIN 6- PURPLE.....MDB_RXD
PIN 10&18- BLACK.....GND
PIN 14- BLUE.....MDB_TXD
PIN 16- BROWN.....24VAC-Neutral
PIN 23- BLUE.....24VAC_HOT

5-1-1. I/O Circuit

Pulse Interface

5-1-1 FIG. 01

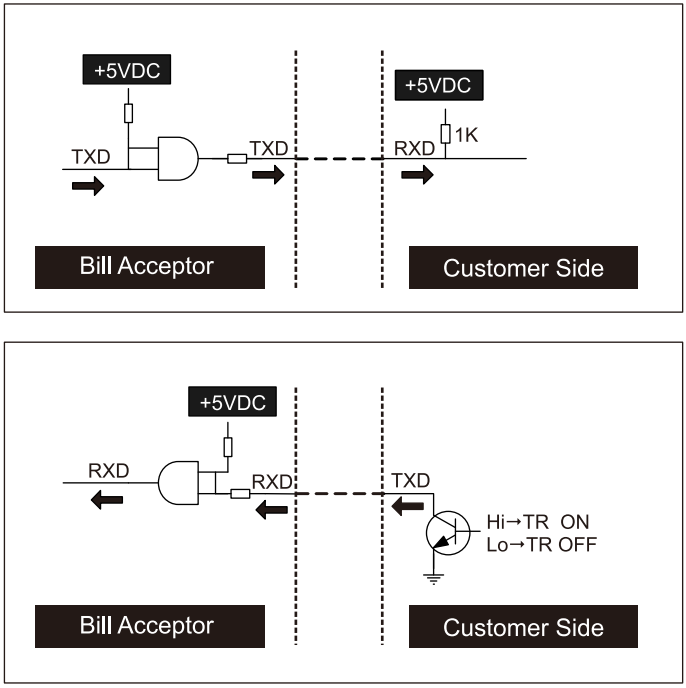




BA Status	DIP SW Setting		Control Signal
Inhibit	Inhibit Active	Low	Low
		High	High
Enable	Inhibit Active	Low	High
		High	Low

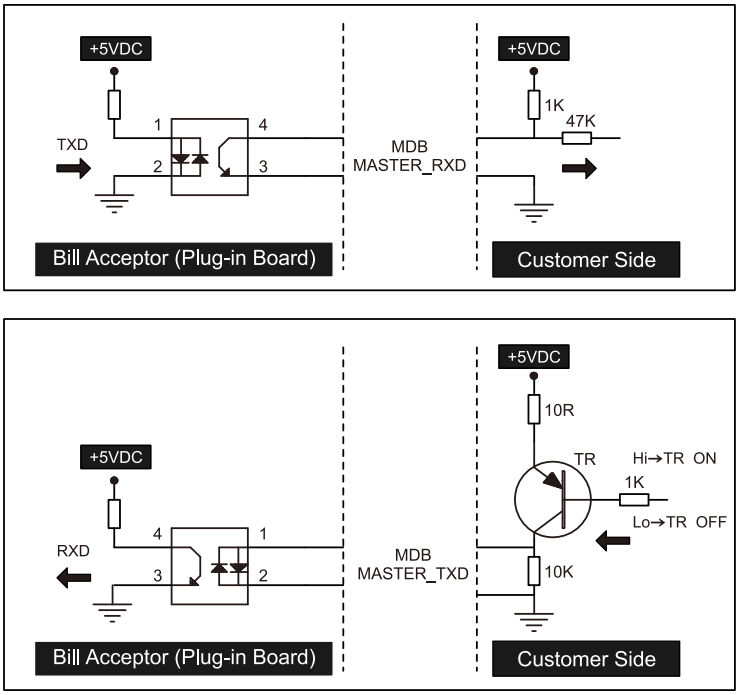
ICT-Protocol Interface.

5-1-1 FIG. 02



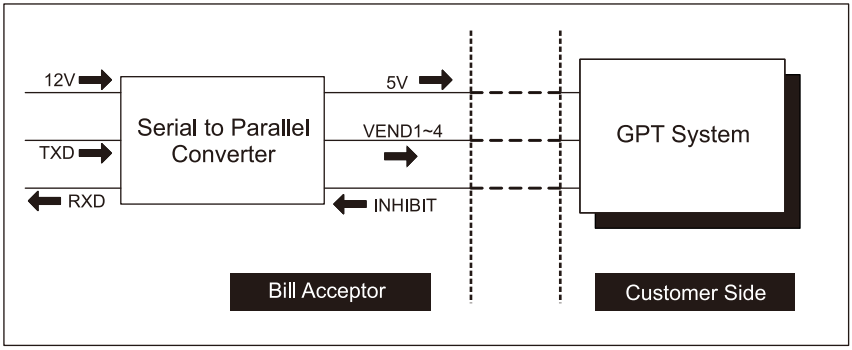
MDB Interface

5-1-1 FIG. 03



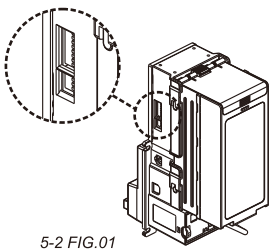
Parallel A3 Interface

5-1-1 FIG. 04

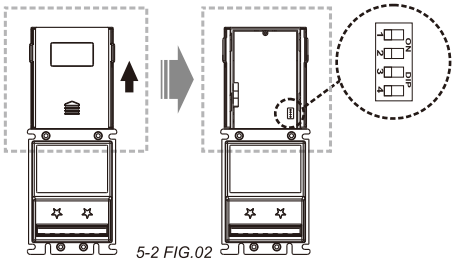


5-2. DIP Switch Setting

There are two serial DIP switches which are located on the side of BS7(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 BS7 for interface settings.(as FIG.02)
Please refer to "BS7 DIP Switch Setting" Guide in the package for more detail.



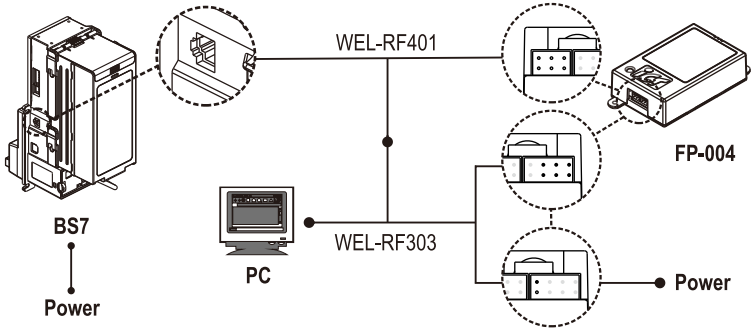
5-2 FIG.01



5-2 FIG.02

5-3. Software Download and Upgrade

To download and upgrade the software to BS7, the programmer(FP-004) is needed. Please contact ICT to purchase FP-004 and refer to FP-004 user guide for software download and upgradeinformation.



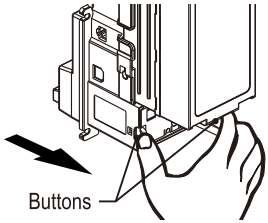
Power must be applied to Bill Acceptor **after** connecting.

6. Maintenance

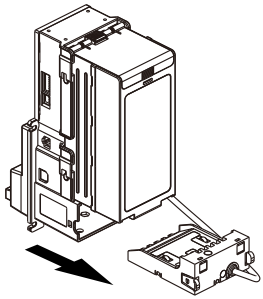
To make sure the bill acceptor always works smoothly, please clean the internal parts regularly.

To clean the internal parts:

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

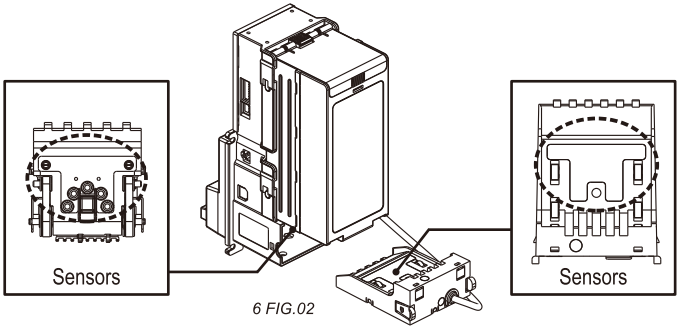


6 FIG.01



6 FIG.01-2

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



6 FIG.02

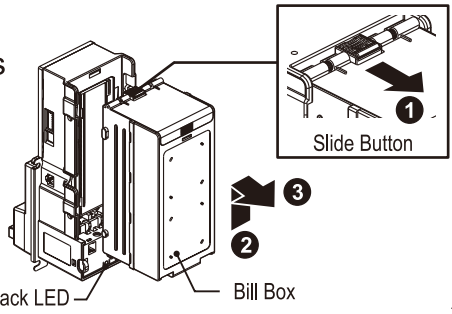
Maintenance Notice

(Any improper maintenance will invalidate the warranty.)

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

7. Troubleshooting

7-1. Back LED Errors



7-1 FIG.01

7-1 TABLE 01

LED **GREEN**	Status	Correct Actions
1	White Card Calibration.	Please calibrate with ICT white calibration card.

7-1 TABLE 01-1

LED Flashes **GREEN**	Status	Corrective Actions
1	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.
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.
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.

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. 7.0 Part Number : H6505F-R