



# **ICT104V General Protocol For RS232**

**Communication Specification**

## Change History

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## 1. General Information

This specification describes the operation of ICT104V Interface Protocol.  
It is regarding to the data for the interface between Controller and ICT product.

## 2. Communication Format

### 2.1 Transmission Specification

Transmission Method	Full Duplex Transmission	
Transmission Speed	9600 Baud Rate	
Synchronizing Method	Asynchronous Mode	
Connection Control Method	Request Method	
Data Format	Start bit	1
	Data bit	8
	Parity bit	Even
	Stop bit	1
	X parameter	None

### 2.2 Timing Specification

<b>Response Time (maximum)</b>	50 ms
<b>Polling Time Interval</b>	100 ~ 200 ms

#### Definition:

<b>Response Time</b>	The maximum time from send out a valid message to receive a response of this message.
<b>Polling Time Interval</b>	The time interval between two message polls.

### 3. Commands

#### 3.1 Power Up

Bill Acceptor			Controller	
Category	Command	Direction	Command	Description
<b>Power Supply ON</b>	80H (128) 8FH (143) Country Code1 (ASCII) Country Code2 (ASCII)	➔		
<b>1. Received 02H in 2 seconds</b>		⬅	02H (02)	Within 2 seconds
<b>2. Do not receive 02H after 2 seconds</b>	26H (38)	➔		BA will be Inhibit Status until receive 0x02

\* Bill Acceptor will be Enable status until receive 0x02 from Controller.

### 3.2 Escrow

Bill Acceptor			Controller	
Category	Command	Direction	Command	Description
Send bill validated	81H (129)	➔		<b>Bill validated</b>
Send bill value	40H ~ 44H	➔		40H : First Bill Type 41H : Second Bill Type 42H : Third Bill Type 43H : Fourth Bill Type 44H : Fifth Bill Type
	Wait for Request (5 Seconds)	⬅	02H (02) Or 0FH (15) Or 18H(24) Or	<b>a. Request to Accept</b> <b>Or</b> <b>b. Request to Reject</b> <b>Or</b> <b>c. *Request to Hold in Escrow</b> <b>d. *No response (5 seconds)</b>
<b>Input Sensor Trig (For continuous Bill in Function)</b>	81H (129) AAH (170)	➔		
<b>Stacking (for a.)</b> <b>Or</b> <b>Reject (for b)</b>	10H (16) 11H (17)	➔		Controller do not need to respond

\*Note 1: 18H will hold the bill in Escrow until receive Accept(0x02h) or Reject(0x0fh).

\*Note 2: If no any response, after 5 seconds Escrow Timeout, Bill Acceptor will Reject Bill automatically. If it continue 3 Times Escrow Timeout, Bill Acceptor Response Communication Failure.

### 3.3 Controller Polling Bill Acceptor Status

Bill Acceptor			Controller	
Category	Command	Direction	Command	Description
<b>Controller Polling</b>				
<b>Bill Acceptor</b>				
<b>Status</b>				
		◀	0CH (12)	Request Bill Acceptor Status
<b>Restart BA</b>				
	20H (32)			Motor Failure
	21H (33)			CheckSum Error
	22H (34)			Bill Jam
	23H (35)			Bill Remove
	24H (36)			Stacker Open
	25H (37)			Sensor Problem
	27H (39)			Bill Fish
	28H (40)			Stacker Problem
	29H (41)			Bill Reject
	2AH (42)			Invalid Command
	.			.
	.			.
	2EH(46)			Reserved
	2FH(47)			Response when Error Status is Exclusion
	3EH (62)			Bill Acceptor Enable Status
	5EH (94)			Bill Acceptor Inhibit Status
	70H (113)			Bill Acceptor Busy
	A1H (161)			Power Supply on communication

### 3.4 Enable/Disable

Bill Acceptor			Controller	
Category	Command	Direction	Command	Description
		←	3EH (62)	Controller Enable Bill Acceptor
<b>Response to Enable Bill Acceptor</b>	3EH (62)	→		
		←	5EH (62)	Controller Disable Bill Acceptor
<b>Response to Disable Bill Acceptor</b>	5EH (62)	→		

### 3.5 Reset

Bill Acceptor			Controller	
Category	Command	Direction	Command	Description
<b>Command Bill Acceptor Reset</b>		←	30H (48)	
<b>Power Supply ON</b>	80H (128) 8FH (143) Country Code1 (ASCII) Country Code2 (ASCII)	→		
<b>1. Received 02H in 2 seconds</b>		←	02H (02)	Within 2 seconds
<b>2. Do not receive 02H after 2 seconds</b>	26H (38)	→		BA will be Inhibit Status until receive 0x02

\* Bill Acceptor will be Enable status until receive 0x02 from Controller.



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