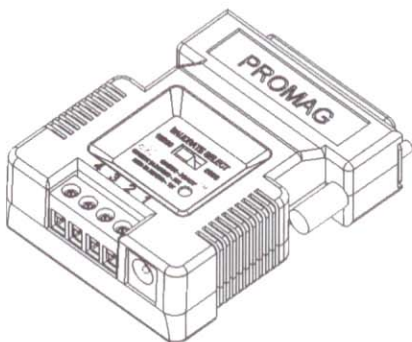


# ***CON-485 Series***

---



---

## **RS232/RS485 Converter User's Manual**

# Contents

Information .....	1
Technical And Operational Description .....	2
Connections .....	3
Application .....	4
Converter Timing .....	7
Specifications .....	8
Label .....	9

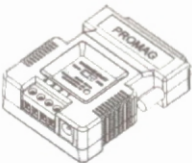


## FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication.

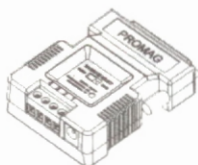
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

# Information

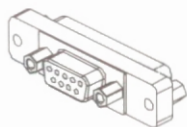
## ■ Con485 Converter

MACHINE TYPE	FUNCTION
 <p><b>CON485</b></p>	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">             RS232 / RS485   </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">             AUTO SWITCH              TX  RX           </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">             COM DISPLAY  <input type="radio"/> RS232   <input checked="" type="radio"/> RS485           </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">             BAUDRATR              SELECT  <input type="checkbox"/> 9600   <input checked="" type="checkbox"/> 19200           </div> </div>

## ■ Standard Package



**Main Unit  
( CON485 )**



**25P Male/9P Female  
RS232 Connector  
(CN5-OT735)**



**User's Manual  
( TM951005 )**



**Power Adaptor  
DC12V/120VAC ( APR-1014 )  
or DC12V/230VAC ( APR-1015A )**

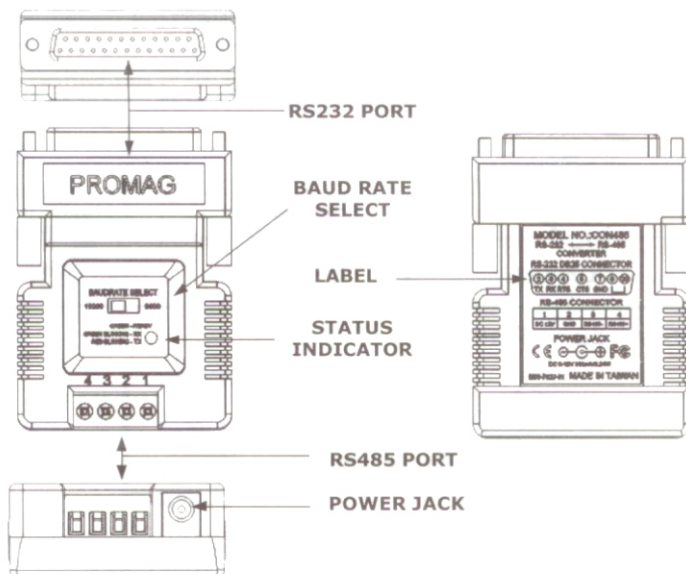
## ■ Optional



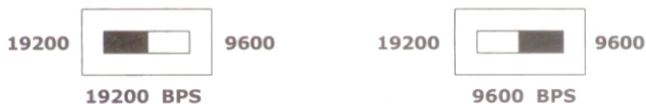
**CABLE (WAS-1467)  
FOR TR550 SERIES**

# Technical And Operational Description

## Front Panel and Operations



## Baud Rate Select

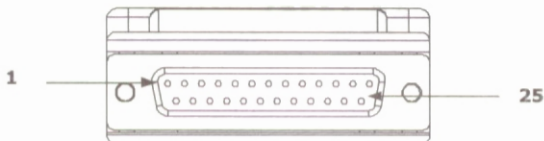


## Indicator Information

STATUS	LED
READY	GREEN
COMMUNICATION FROM RS232	GREEN BLINK
COMMUNICATION FROM RS485	RED BLINK
POWER ON/RESET	GREEN&RED BLINK

# Connections

## 1.RS-232 CONNECT

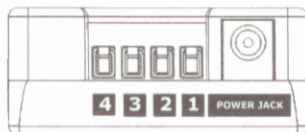


DB 25P FEMALE PIN	FUNCTION
2	TXD
3	RXD
4	RTS
5	CTS
6	CONNECT TO PIN20
7	GND
20	CONNECT TO PIN6
1,8,12-17,19,21-24	NC
9	SCK
10	MISO
11	MOSI
18	RESET
25	+5V OUTPUT

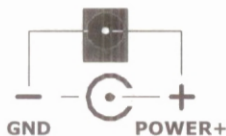


\* User can't use these pins. ( For ISP Function )

## 2.RS-485 CONNECT



RJ-116P6C PIN	FUNCTION
1	POWER+
2	GND
3	RS-485-
4	RS-485+



DC9~12V / 300 mA

# Application

## ■ TR550

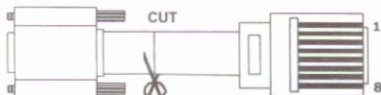
### 1. CABLE(WAS-1436)



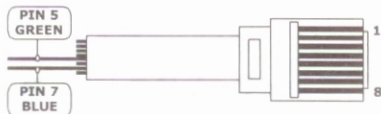
PIN	COLOR
1	GRAY
2	ORANGE
3	BLACK
4	RED
5	GREEN
6	YELLOW
7	BLUE
8	BROWN

### 2. CONNECTOR

#### STEP 1

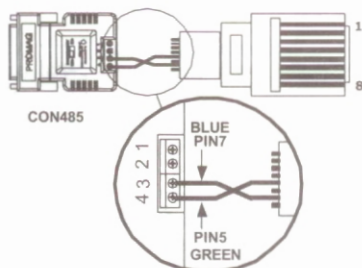


#### STEP 2

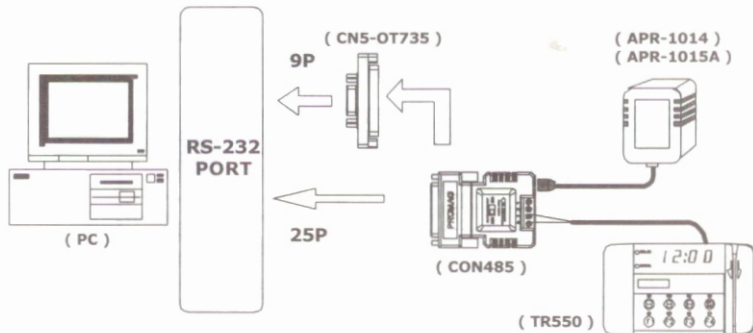


#### STEP 3

RS-485/RS-232 Converter ( Optional )

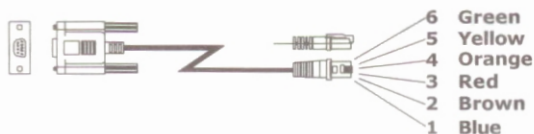


### 3. SYSTEM



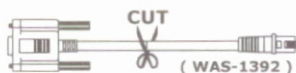
## ■ TR510

### 1.CABLE(WAS-1392)

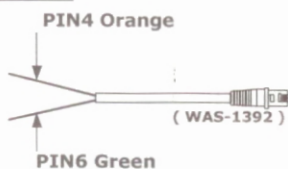


### 2.CONNECTOR

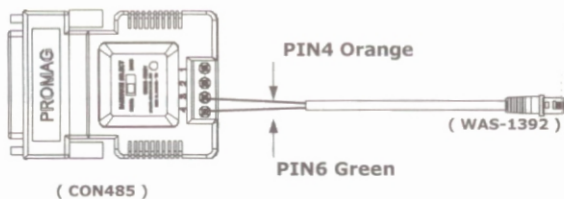
#### STEP1



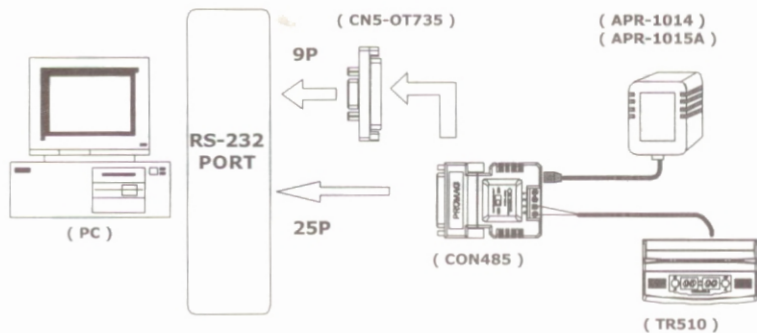
#### STEP2



#### STEP3



### 3.SYSTEM



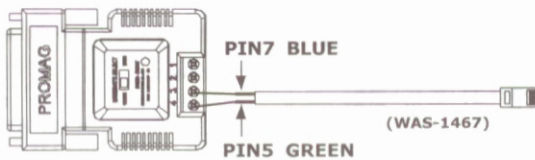
## ■ AC9400

### 1. CABLE (WAS-1467)

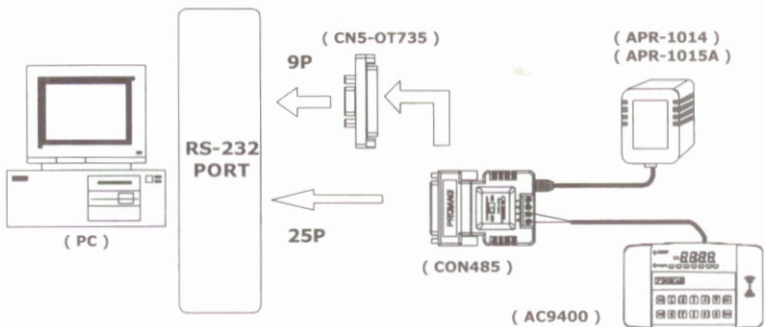


PIN	COLOR
1	GRAY
2	ORANGE
3	BLACK
4	RED
5	GREEN
6	YELLOW
7	BLUE
8	BROWN

### 2. CONNECTOR

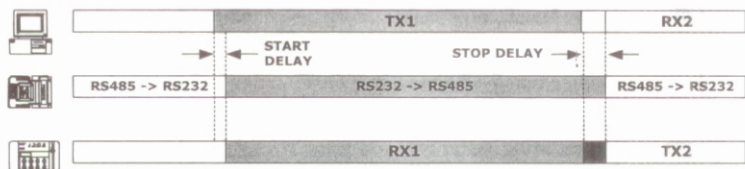
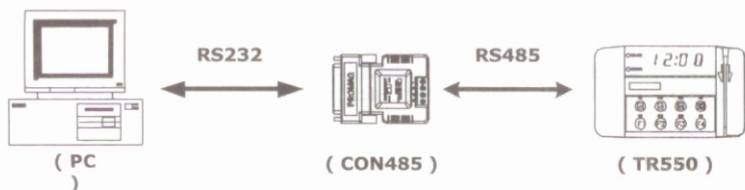


### 3. SYSTEM



# Converter Timing

## CONVERT TIMING



<b>START DELAY</b>	< 100 ns
<b>STOP DELAY</b>	$\frac{1}{2 * ( \text{BAUDRATE} )}$

<b>BAUDRATE</b>	<b>1200</b>	<b>2400</b>	<b>4800</b>	<b>9600</b>
<b>STOP DELAY</b>	416 us	208 us	104 us	52 us

<b>BAUDRATE</b>	<b>19200</b>	<b>38400</b>	<b>57600</b>	<b>115200</b>
<b>STOP DELAY</b>	26 us	13 us	8.7 us	4.3 us

## NOTES:

1. Host ( RS232 side ) uses half-duplex communication, do not need to control transmitting, receiving and delay .
2. Device ( RS485 side ) only need to note that it must not respond to the computer and must wait at least the "STOP DELAY" time and then send the data when it has received the command or data from the computer.

# Specifications

**RS485 Interface**

RS485 , Half-Duplex , 8N1 , 9600/19200 bps

**RS232 Interface :**

RS232 , Half-Duplex , 8N1 , 9600/19200 bps

**Power Supply :**

DC 9V ~ 12V, 300mA

**Dimensions :**

D 22.6 x W 53 x H 68.5 mm

**Environment :**

Operating Temp : 0 ~ 55 Deg.C

Storage Temp : -10 ~ 55 Deg.C

Humidity : 10 ~ 90 % relative

**Mounting :**

Any surface

# Label

**MODEL : CON485**

**RS-232 ↔ RS-485  
CONVERTER**

**RS-232 DB25 CONNECTOR**



**RS-485 CONNECTOR**

1	2	3	4
DC 12V	GND	RS485-	RS485+

**POWER JACK**



DC 9 - 12V 300mA / 0.24W

M03-P527

**MADE IN TAIWAN**

**BAUDRATE SELECT**

19200        9600

GREEN - READY  
GREEN BLINKING - RX  
RED BLINKING - TX

