

## Appendix for MPC Installation Guide – RS-485 (RS-232) Program Settings and Configuration

Part A -- Communication Specification

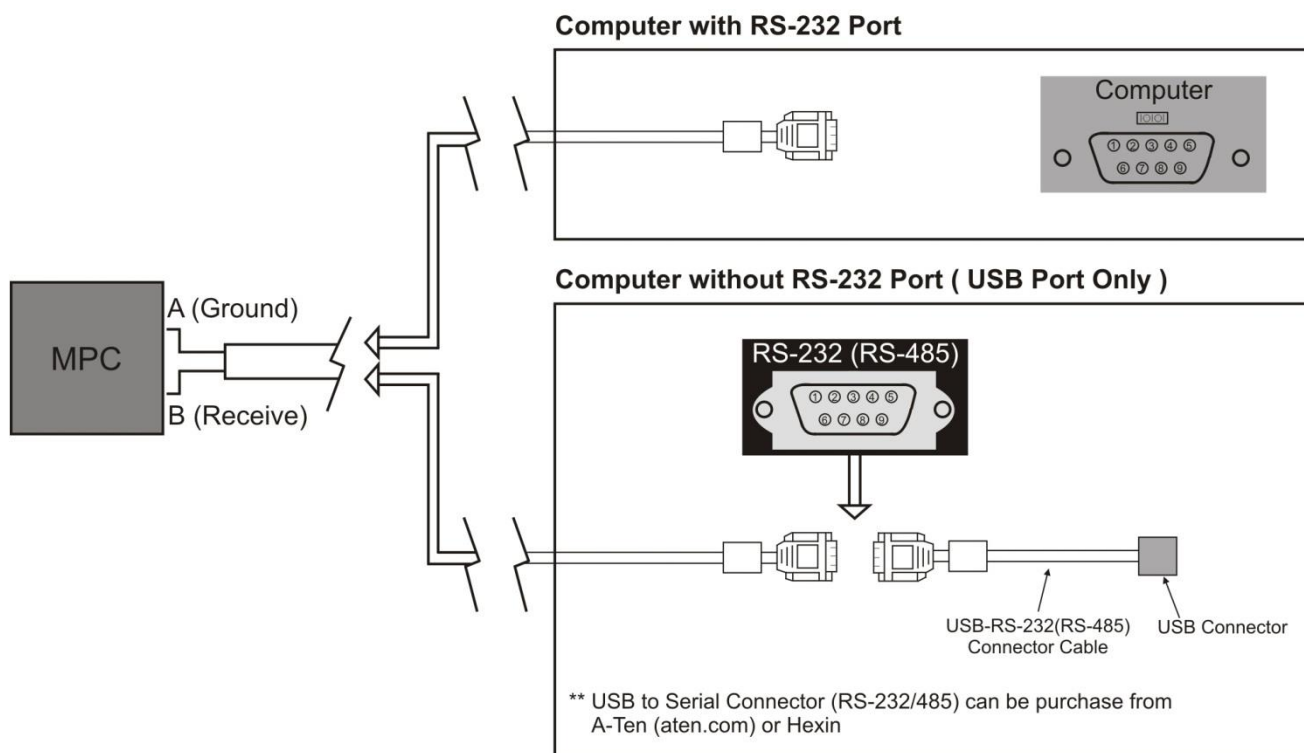
Part B -- To Set up USB-RS232 Control Configuration (applicable if computer does not have RS-232 port)

Part C -- Programming

### **Part A – Communication Specification**

A MPC and a computer can be connected using a serial or USB port. The Motor/Power Controller (MPC) can be remotely controlled by sending commands from computer. Connect a USB -to- RS485 (RS-232) cable between computer (Laptop) and MPC.

Baud Rate : 9600bps  
 Data Length : 8 bits  
 Parity : None  
 Stop Bit : 1 bit  
 Flow Control : No



#### **RS-485 Connection**

| MPC |   | PC serial cable | Computer |     |
|-----|---|-----------------|----------|-----|
| GND | - | —————           | 5        | GND |
| RD  | - | ←————           | 3        | TD  |

#### **RS-232 Connection**

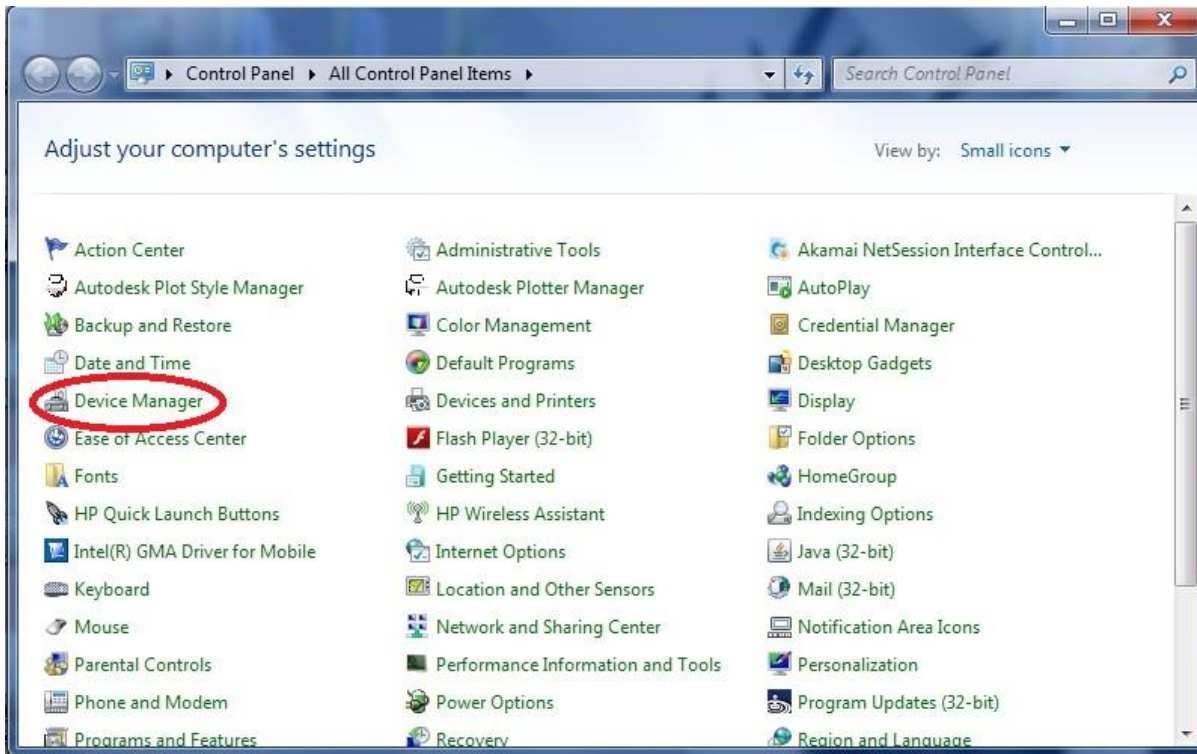
| Connector |   | PC serial cable | Computer |     |
|-----------|---|-----------------|----------|-----|
| GND       | 5 | —————           | 5        | GND |
| RD        | 2 | ←————           | 3        | TD  |
| TD        | 3 | —————           | 2        | RD  |

**Legend:**

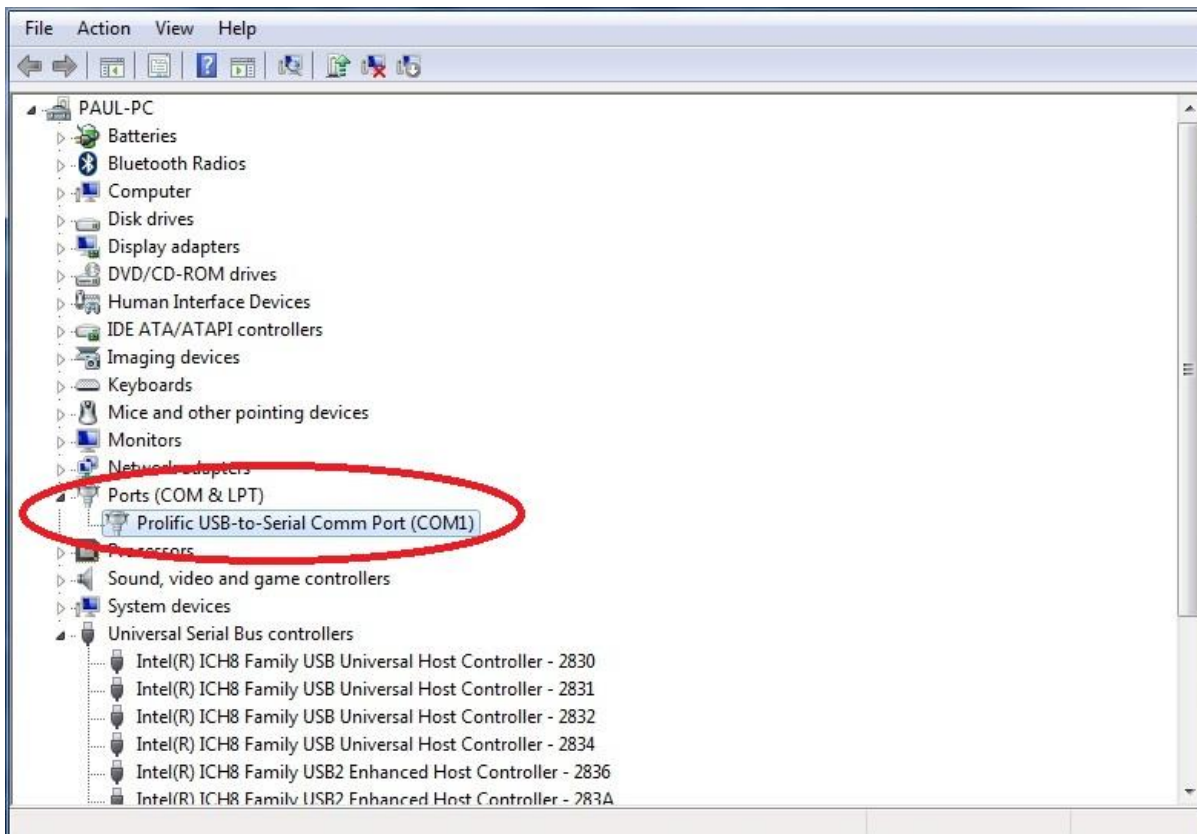
GND = Common Ground  
 TD = Transmitted Data  
 RD = Received Data

## Part B – To Set Up USB-RS232 Control Configuration (Skip This Step If Computer have RS-232 port Direct)

1. In Windows, click Start button and choose Control Panel
2. Select Device Manager

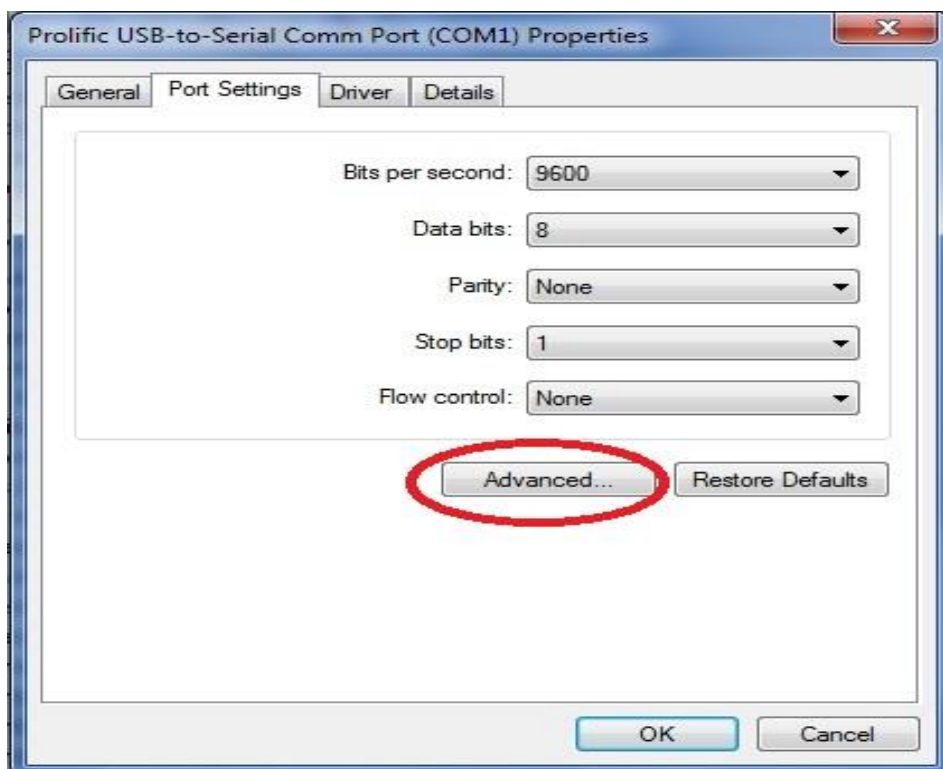


3. Click on Ports (Com & LPT)



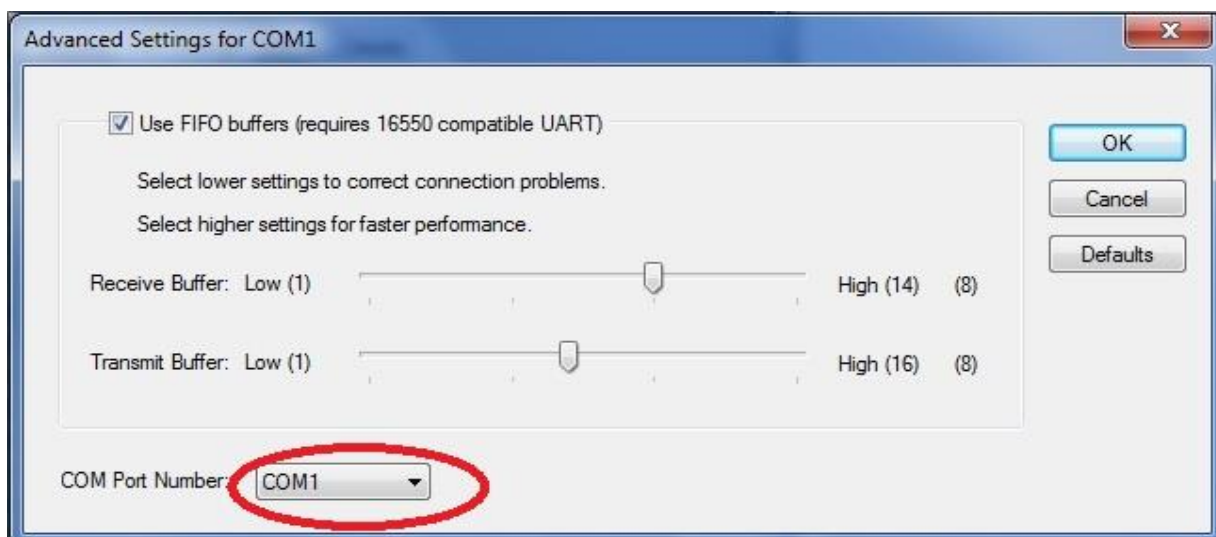
4. Right Click → Properties

5. Select Port Settings



6. Select "Advanced"

7. Select "Com 1" in the drop down box for COM Port Number



8. Click OK

## Part C – Programming MPC with Software Program

A Computer (Laptop) to program MPC for combine mode (by default MPC is programmed in Independent Mode). A program “MPC-851 Program.exe” can be download from Remaco website ( [www.remacotech.com](http://www.remacotech.com) ) under download. The program has to be installed into your computer before continue with the following steps.

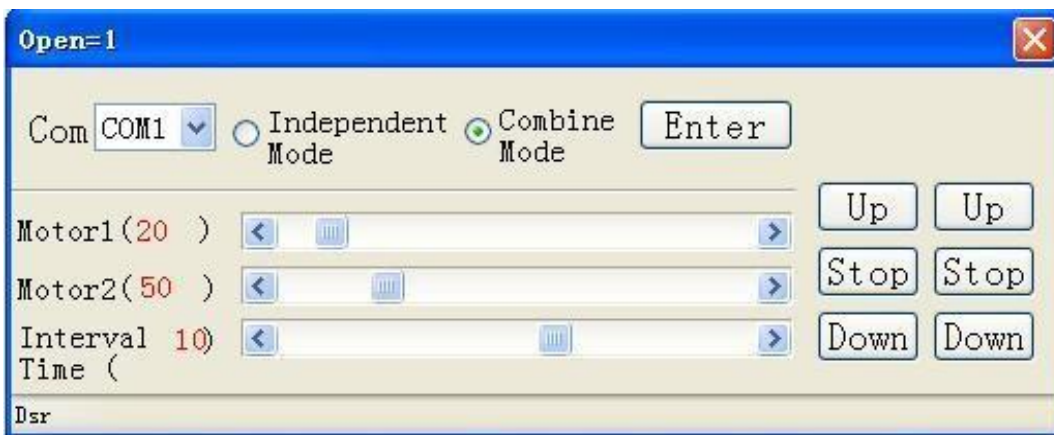
### Entering Login Mode

1. Connect MPC with computer through USB-to-RS485 (RS-232) Cable.
2. Open up “MPC-851 Program.exe”.
3. Once Connected Top Left Hand Corner should display “Open=1” as shown on the picture.
4. Click on any of the program control Button (UP, DOWN, STOP), LED on MPC should flash.  
If it does not flash, change the direction of the RS232 Wire.
5. If LED flashes, but Motor doesn’t move. It means the communication between computer and MPC is not communicating. The MPC has not login into “Set Control” program.  
Following steps has to be done to login.
6. Press and hold the learning button on the MPC, until the LED flashes.  
Click “UP” button on the program software of any channel, then the LED will stop flashing.  
It indicates login is successful.

### Program Setting – Independent Mode

In Independent Mode, Interval Time is unavailable. However you can still set the motor running duration of each motor.

### Program Setting – Combine Mode



- Start Time: The time when you press “UP” or “Down”
- Motor 1: Running Time Duration (in seconds) of Motor 1
- Motor 2: Running Time Duration (in seconds) of Motor 2
- Interval Time: Duration (in seconds) between the start time of the first motor that run and the start time of the second motor that run.

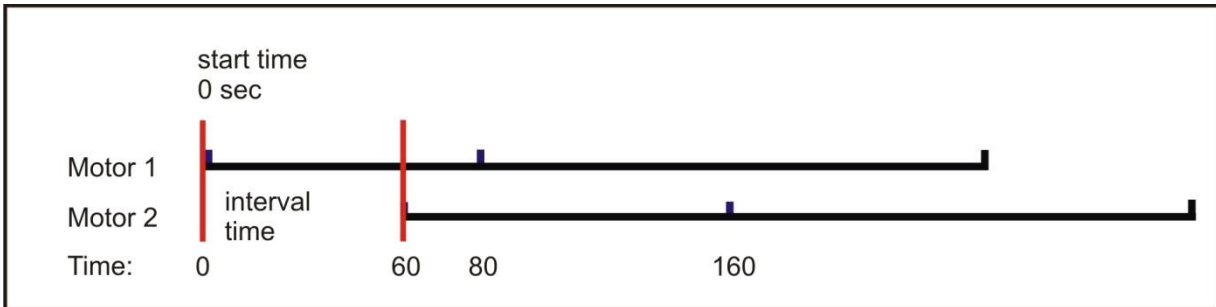
If Interval is “+”, Motor 1 will run first, If Interval is “-”, Motor 2 will run first.

\*\* Maximum Running Duration for each motor is 240 Seconds.

\*\* **Important Remarks:** For safety reason, at any time if “Up” command follow by “Down” command or vice versa. MPC will stop all movement immediately and move onto last command activated.

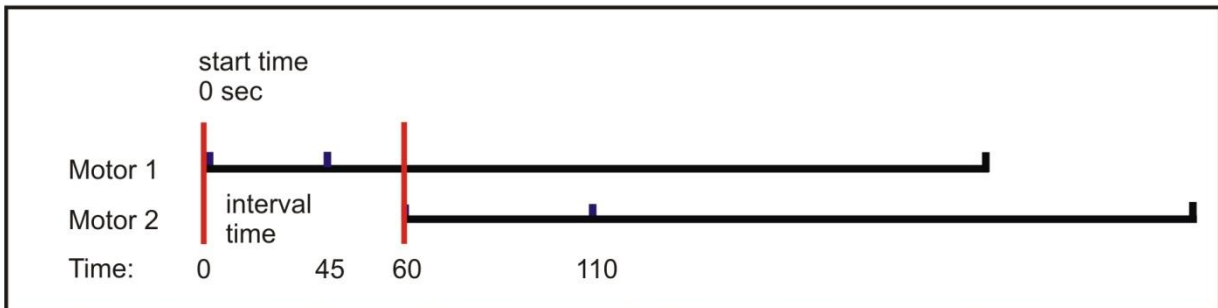
**Example 1: Assuming below is the time settings, the motor runs as shown on picture below**

Motor 1 = 80sec (start to run from the 1st blue marker, and stop in the 2nd blue marker)  
Motor 2 = 100sec (start to run from the 1st blue marker, and stop in the 2nd blue marker)  
Interval time = +60sec (between two red lines)



**Example 2: Assuming below is time settings, the motor runs as shown on picture below**

Motor 1 = 45sec (start to run from the 1st blue marker, and stop in the 2nd blue marker)  
Motor 2 = 50sec (start to run from the 1st blue marker, and stop in the 2nd blue marker)  
Interval time = +60sec (between two red lines)



**Example 3: Assuming below is time settings, the motor runs as shown on picture below**

Motor 1 = 60sec (start to run from the 1st blue marker, and stop in the 2nd blue marker)  
Motor 2 = 100sec (start to run from the 1st blue marker, and stop in the 2nd blue marker)  
Interval time = -60sec (between two red lines)

