

# I-752N New Quick Start

2006/11/2

## 1. Introduction

### Introduction

The 7188x.exe has been upgraded to 7188xw.exe and some changes are done for the screen and steps. The following sections introduce new quick start using 7188xw.exe.

## 1.1 Tools and Information

### 7188xw utility and information:

Location: <http://ftp.icpdas.com.tw/pub/cd/8000cd/napdos/minios7/utility/> or  
<http://ftp.icpdas.com.tw/pub/cd/8000cd/napdos/minios7/utility/utility.htm>

### MiniOS7 Utility:

Location:

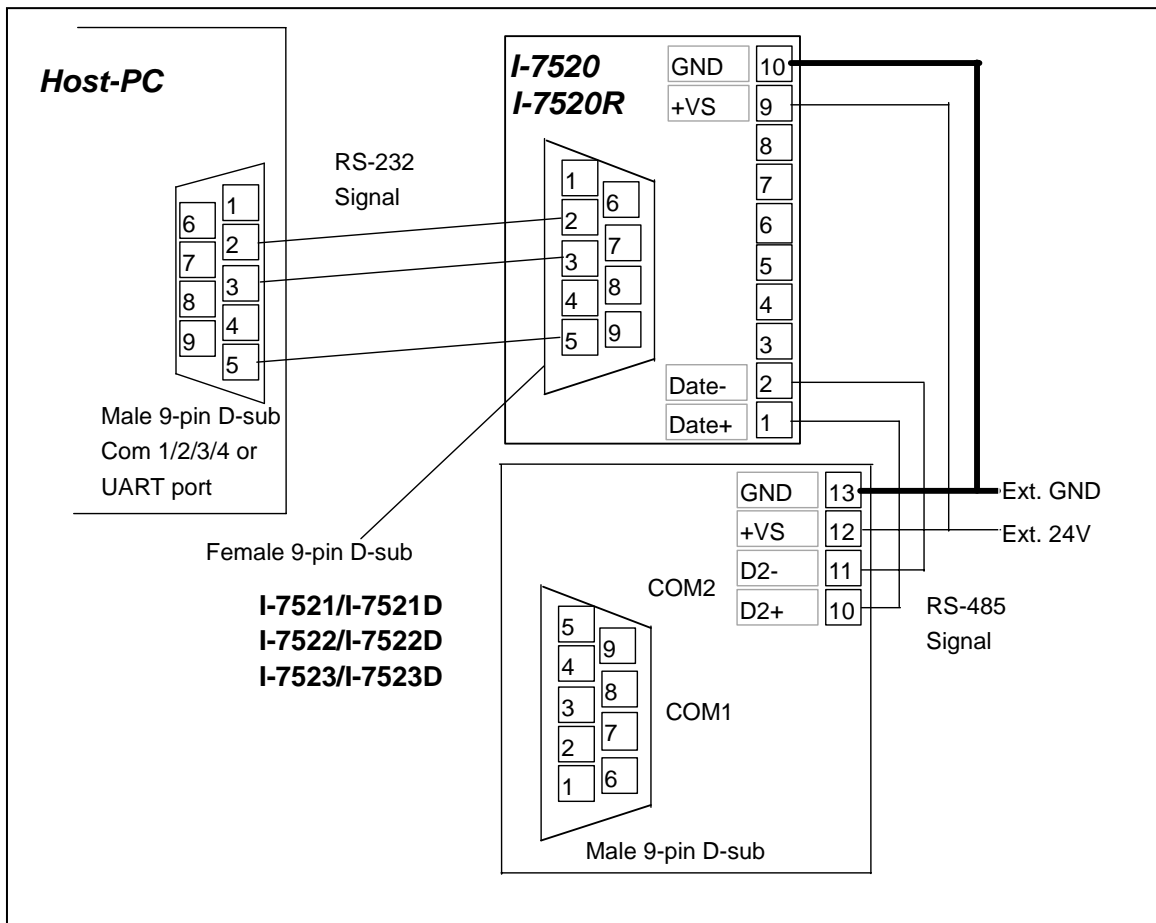
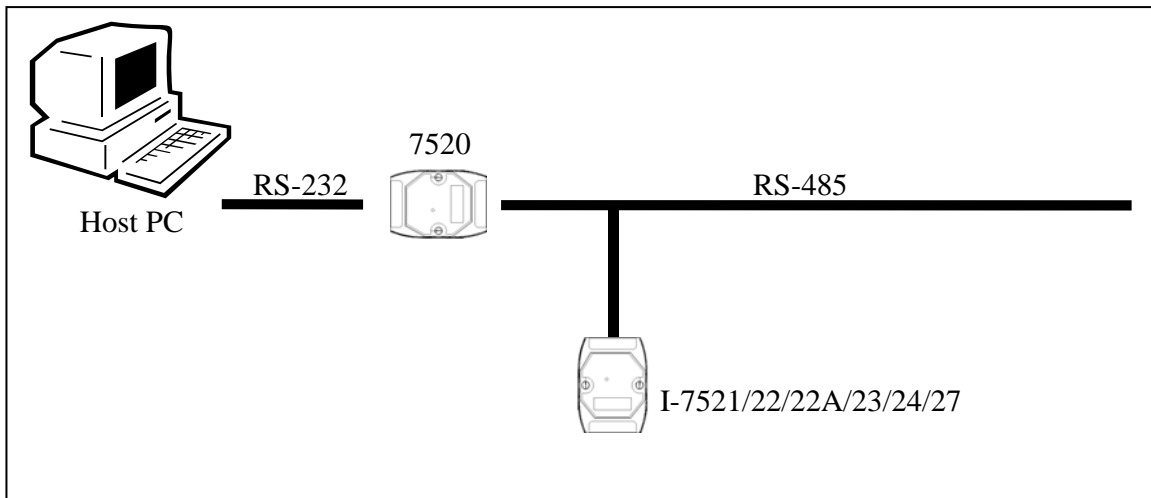
[http://ftp.icpdas.com.tw/pub/cd/8000cd/napdos/minios7/utility/minios7\\_utility/](http://ftp.icpdas.com.tw/pub/cd/8000cd/napdos/minios7/utility/minios7_utility/)

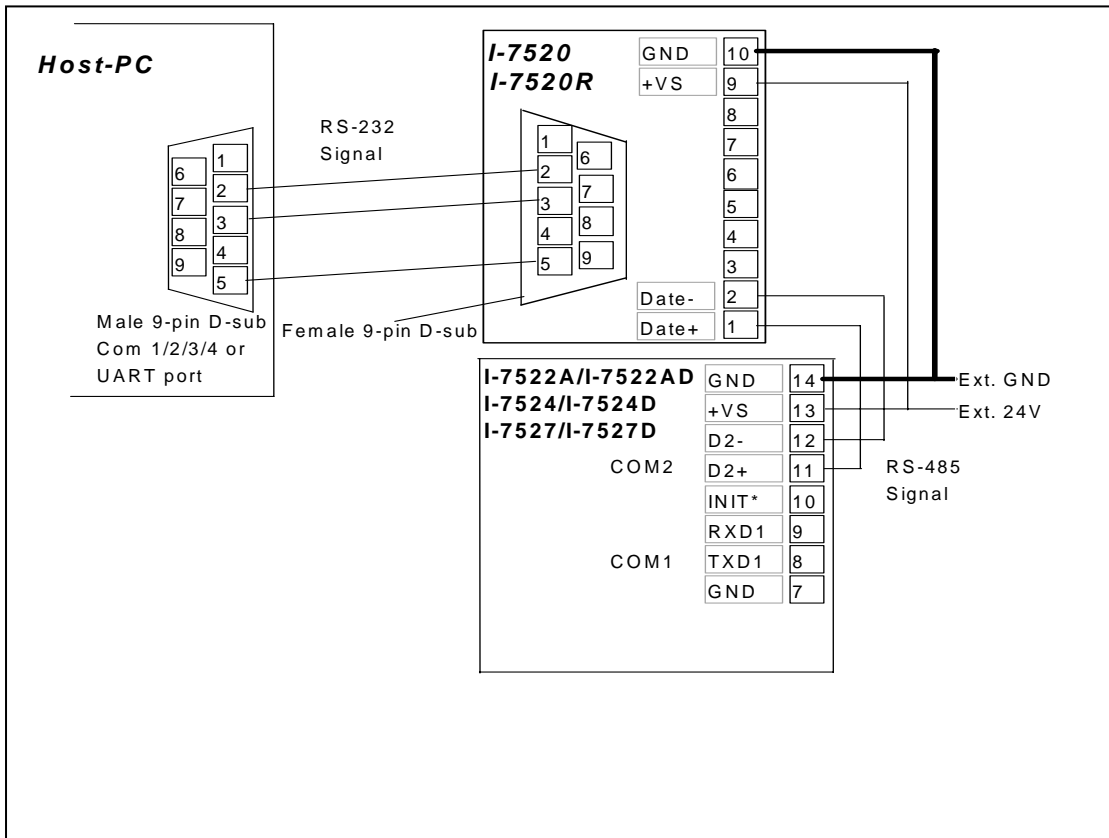
### The latest firmware version:

Location: [http://ftp.icpdas.com.tw/pub/cd/8000cd/napdos/752n/firmware\\_v3/](http://ftp.icpdas.com.tw/pub/cd/8000cd/napdos/752n/firmware_v3/)

# 1.2 Quick Start 1: Connecting the I-752N

Step 1: Connect the I-752N module to the RS-485 network as follows:





Step 2: Execute 7188xw.exe on the Host PC

Step 3: Select the active COM port of the Host PC

If the I-752N is connected to COM1 on PC, then press **ALT + 1**

If the I-752N is connected to COM2 on PC, then press **ALT + 2**

The following screen will be shown:

```

7188XW 1.26 [COM1:115200,N,8,1],FC=0,CTS=1, DIR=C:\WINDOWS
7188x for WIN32 version 1.26 (10/19/2004)[By ICPDAS, Tim.]
[Begin Key Thread...][Current set: use COM1 115200,N,8,1]
AutoRun:test.exe
Autodownload files: None
Current work directory="C:\WINDOWS"
original baudrate = 115200?
now baudrate = 115200?
original baudrate = 115200?
now baudrate = 115200?
***
<*** Change to use COM2 ***>
original baudrate = 115200?
now baudrate = 115200?
<*** Change to use COM1 ***>

```

\*\*\*

\*\* illustrates some real time configurations for the 7188xw  
If the configuration is not 9600, N, 8, 1, refer to Steps 4 to 7 below to  
configure the correct settings. Otherwise go directly to Step 8.

Step 4: Set the Baud Rate of the 7188xw to 9600  
Press **ALT + C**  
Type **b9600**  
Press **ENTER** to confirm

Step 5: Set the Parity bit of the 7188xw to N  
Press **ALT + C**  
Type **n**  
Press **ENTER** to confirm

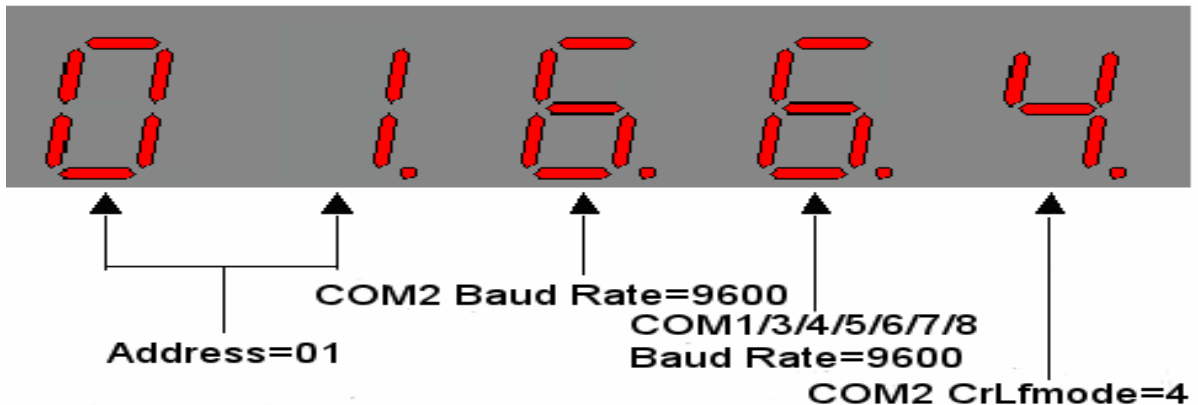
Step 6: Set the Data bit of the 7188xw to 8  
Press **ALT + C**  
Type **8**  
Press **ENTER** to confirm

Step 7: Set the Stop bit of the 7188xw to 1  
Press **ALT + C**. Type **1**  
Press **ENTER** to confirm

Step 8: Change the 7188xw to Command Line-mode  
Press **ALT+ L**  
The following screen will be shown:

```
.....  
Current work directory="D:\vic\7188\DEMO_v2.9\BC\DEMO32"  
original baudrate = 115200!  
now baudrate = 115200!  
  
7188xwCmd:B9600original baudrate = 115200!  
now baudrate = 9600!  
  
Current baud rate is 9600  
  
7188xwCmd:n  
Change data format to N,8,1  
  
7188xwCmd:8  
Change data format to N,8,1  
  
7188xwCmd:1  
Change data format to N,8,1  
  
{change to Line Mode}
```

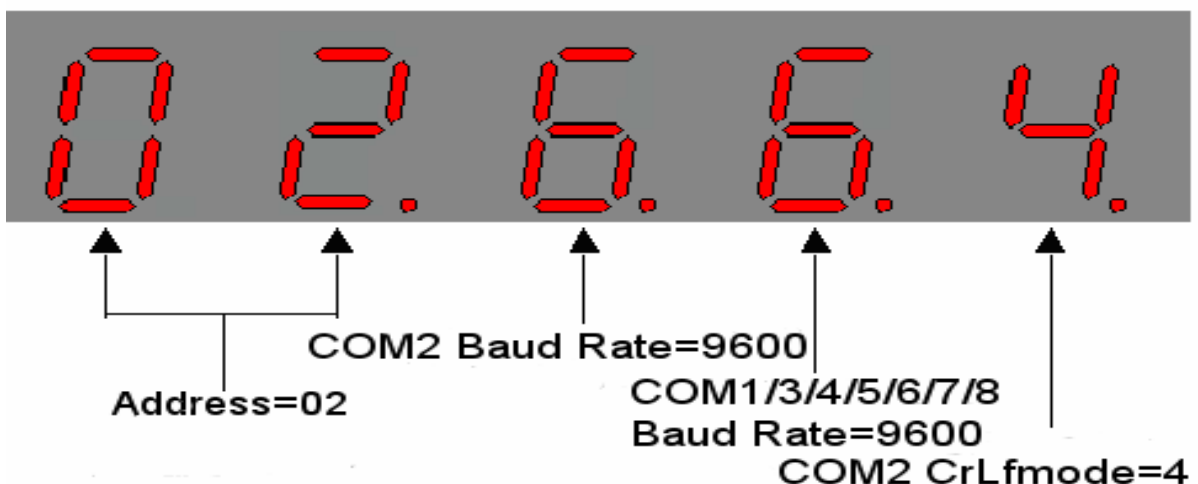
Step 9: Switch on the power to the I-752N module (disconnect the DI1/INIT\* pin and GND pin) and check that the display on the 5-digit, 7-seg LED is as follows: (For firmware version 3.02 and above, see Note\*)



Step 10: Retrieve the Module Name of the I-752N module  
 Type the command → **\$01M**  
 Press **ENTER** to send the command to the I-752N module  
 Check that the module returns → **!017521** (for example: I-7521)

Step 11: Retrieve the Version number of the I-752N module  
 Type the command → **\$01F**  
 Press **ENTER** to send the command to the I-752N module  
 Check that the module returns → **!01(A1.0/A2.0/A3.0/A3.02)**

Step 12: Change the Module Address of the I-752N module  
 Type the command → **\$01A02**  
 Press **ENTER** to send the command to the I-752N module  
 Check that the display on the 5-digit, 7-seg LED is as follows:  
 (For firmware version 3.02 and above, see Note\*)



Type the command → **\$02M**

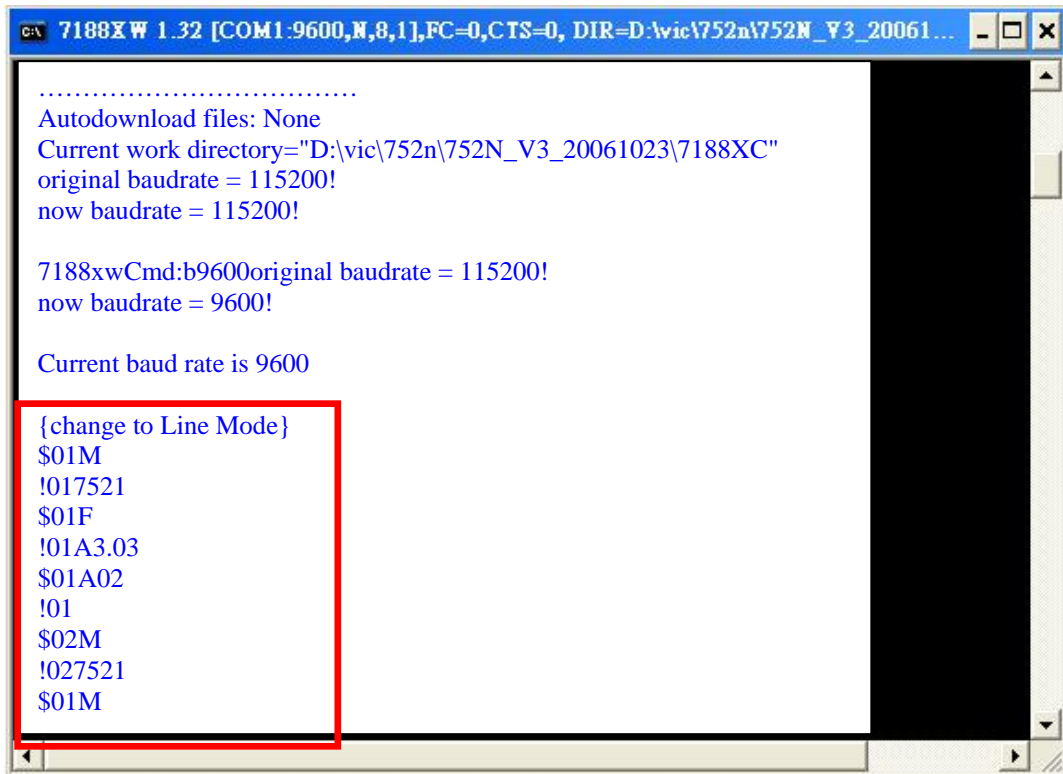
Press **ENTER** to send the command to the I-752N module

Check that the module returns → **!027521**(for example:  
I-7521)

Type the command → **\$01M**

Press **ENTER** to send the command to the I-752N module

Check that the module returns → **No response** (for example:  
I-7521)



```
7188X W 1.32 [COM1:9600,N,8,1],FC=0,CTS=0, DIR=D:\vic\752n\752N_V3_20061...
.....
Autodownload files: None
Current work directory="D:\vic\752n\752N_V3_20061023\7188XC"
original baudrate = 115200!
now baudrate = 115200!

7188xwCmd:b9600original baudrate = 115200!
now baudrate = 9600!

Current baud rate is 9600

{change to Line Mode}
$01M
!017521
$01F
!01A3.03
$01A02
!01
$02M
!027521
$01M
```

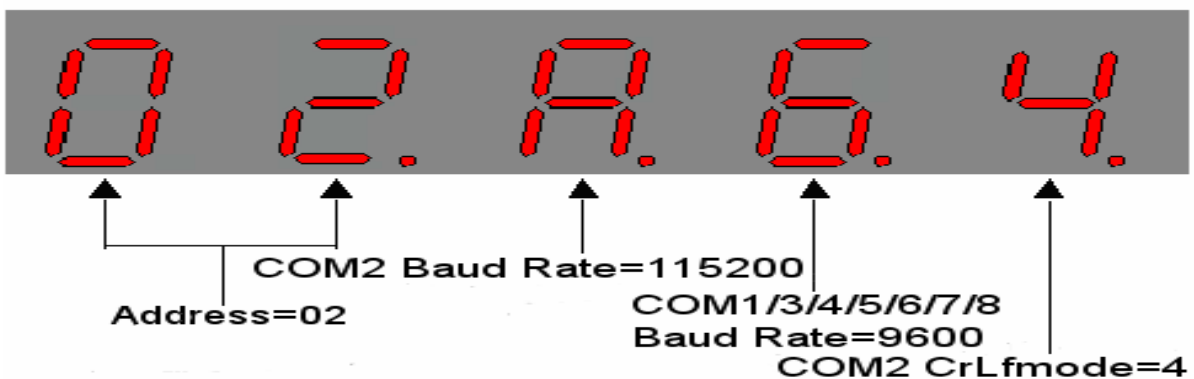
Step 13: Change the Baud Rate for COM2 of the I-752N module

Type the command → **\$02B0115200**

Press **ENTER** to send the command to the I-752N module

Check that the display on the 5-digit, 7-seg LED is as follows:

(For firmware version 3.02 and above, see Note\*, page 7)



Press **ALT + C**

Type **b115200** to change the Baud Rate on the PC side

Press **ENTER** to confirm the Baud Rate=115200

Type the command → **\$02M**

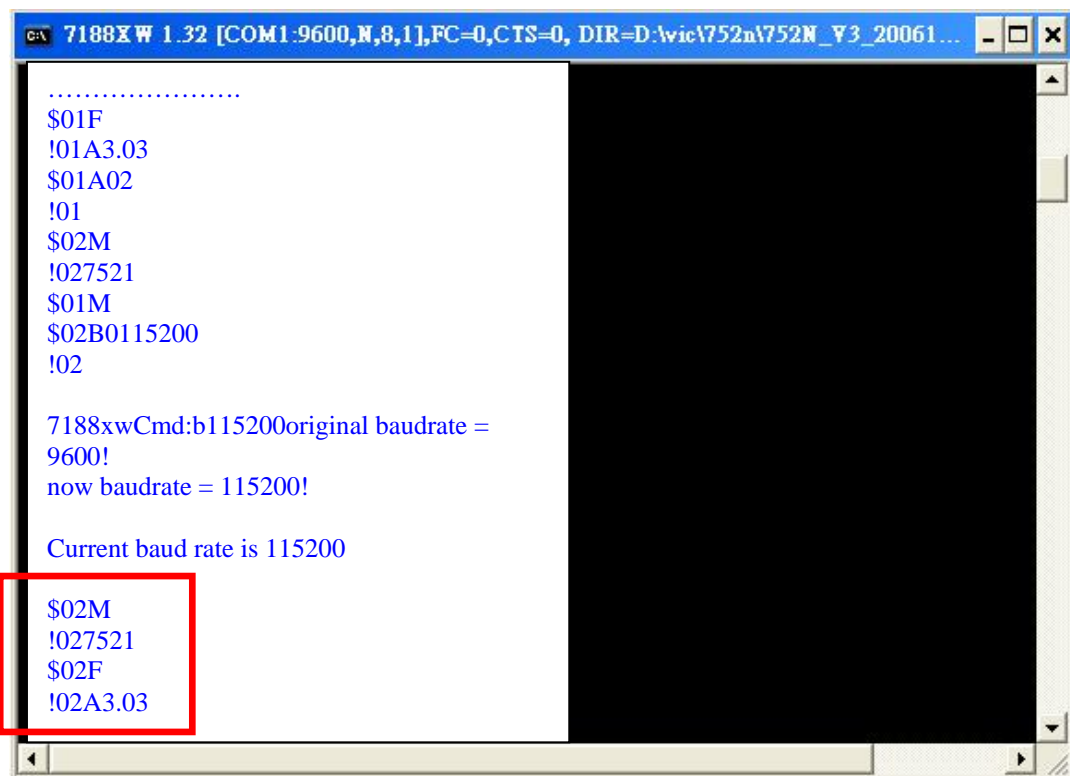
Press **ENTER** to send the command to the I-752N module

Check that the module returns → **!027521** (for example: I-7521)

Type the command → **\$02F**

Press **ENTER** to send the command to the I-752N module

Check that the module returns → **!02(A1.0/A2.0/A3.0/A3.02)**  
(for example: I-7521)

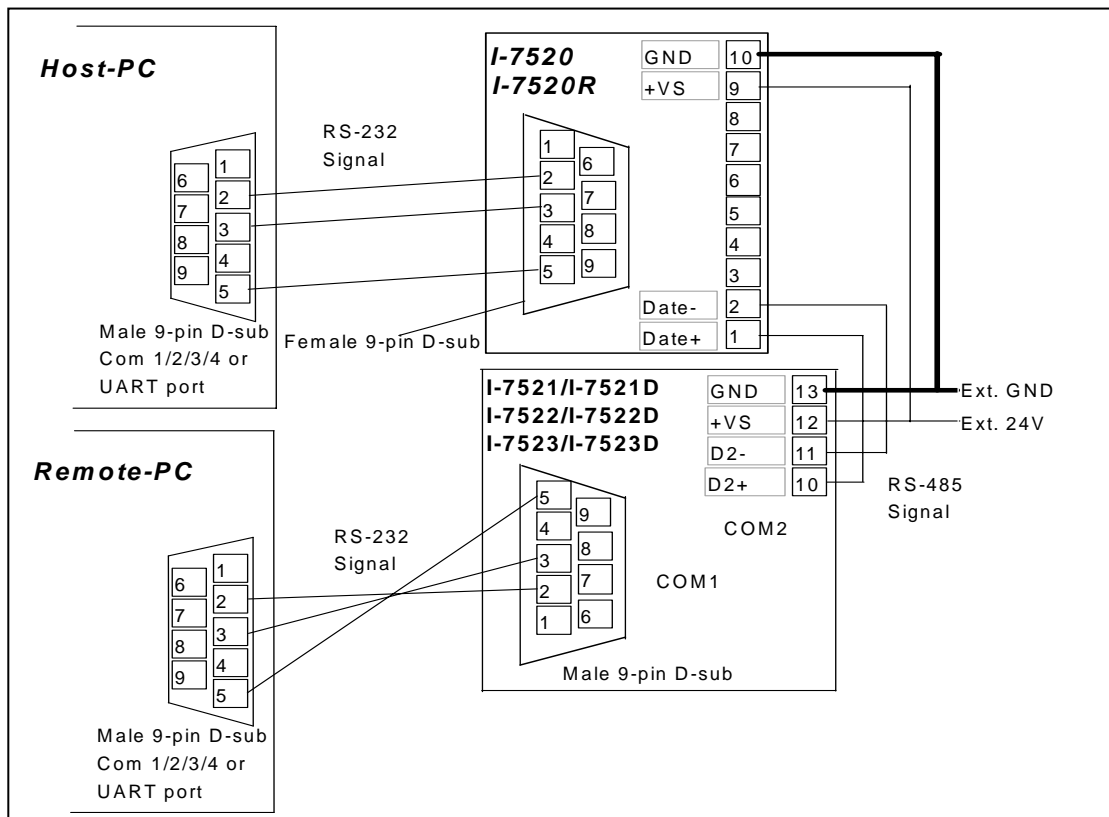
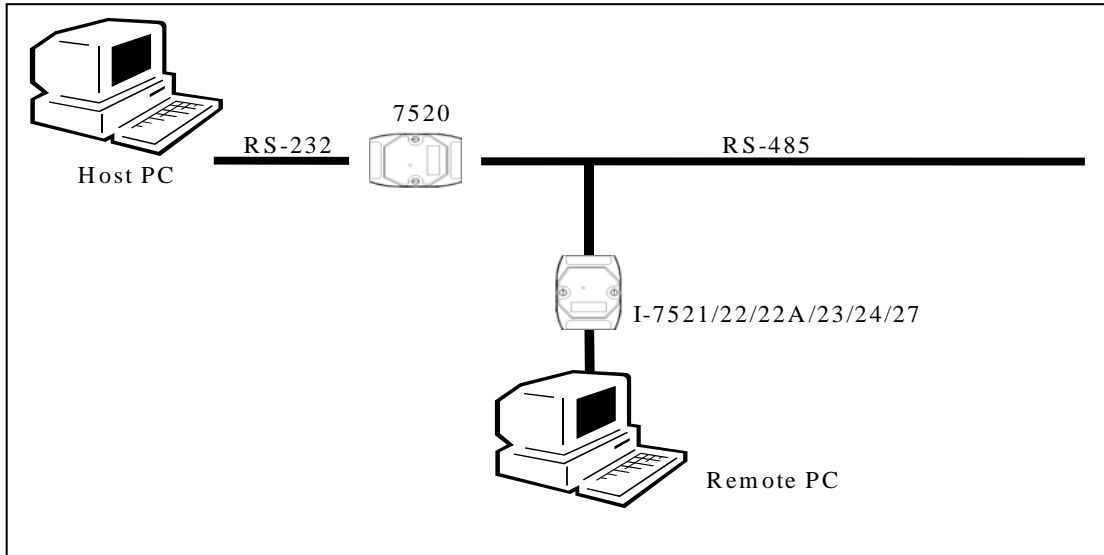


```
.....  
$01F  
!01A3.03  
$01A02  
!01  
$02M  
!027521  
$01M  
$02B0115200  
!02  
  
7188xwCmd:b115200original baudrate =  
9600!  
now baudrate = 115200!  
  
Current baud rate is 115200  
  
$02M  
!027521  
$02F  
!02A3.03
```

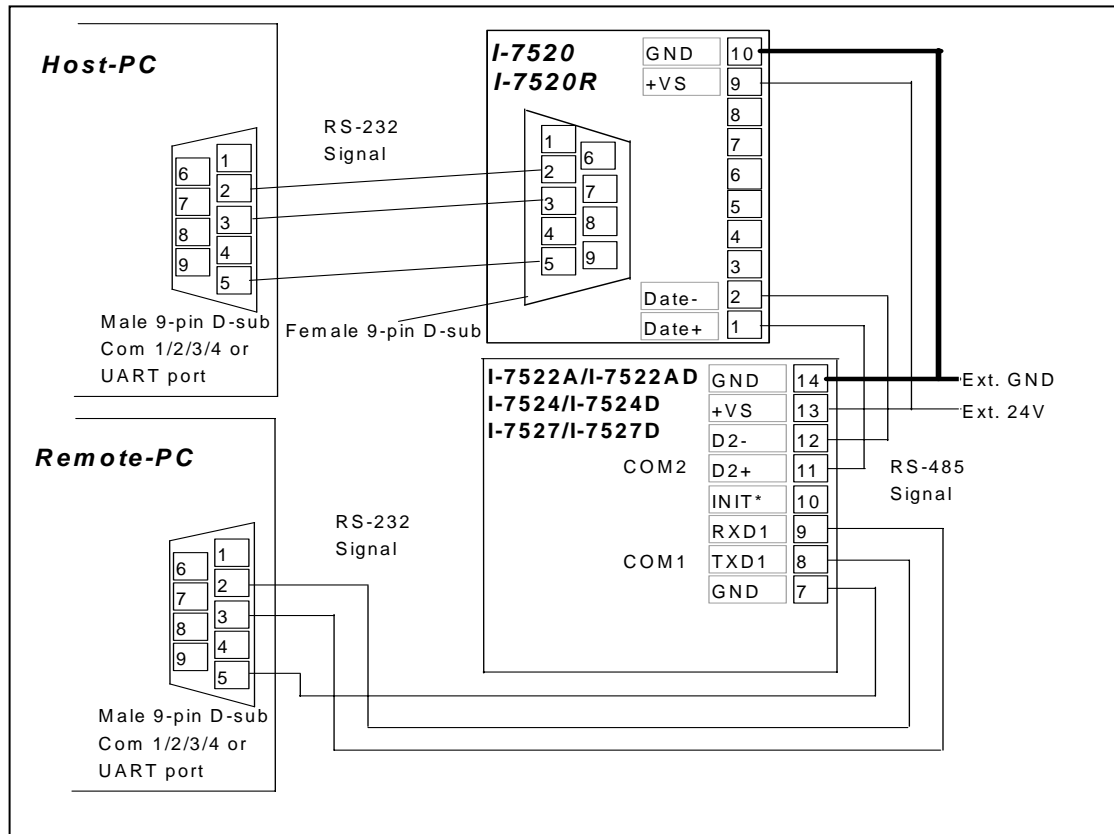
Note\*: Refer to Sec. 3.2 in the 7521/7522/7522A/7523/7524/7527 Software User's Manual for more details regarding short codes for the Baud Rates.

# 1.3 Quick Start 2: Connecting to a Single Remote RS-232 Device

Step 1: Connect the I-752N module to the RS-485 network and the remote PC as follows:







Step 2: Execute 7188xw.exe on the Host PC

Refer to Steps 3 to 8 of Quick Start 1 for details of how to change the COM port and status settings to **9600, N, 8, 1**

Step 3: Execute 7188xw.exe on the Remote PC

Refer to Steps 3 to 8 of Quick Start 1 for details of how to change the COM port and status settings to **9600, N, 8, 1**

Step 4: The Host PC Sends **abcde** to the Remote PC

Type **:01abcde** (Refer to Sec. 3.10 in the ## (page 15) for bypassing the data string)

Press **ENTER** to send the command string to the I-752N module

Check that the response string from the Remote PC is **abcde**

The following screen should be shown on the Host PC:

```
C:\ 7188X W 1.32 [COM1:9600,N,8,1],FC=0,CTS=0, DIR=D:\vic\752n\752N_V3_20061... - _ X
.....
D:\vic\752n\752N_V3_20061023\7188XC>7188xw/c1

7188x for WIN32 version 1.32 (2006/10/17)[By ICPDAS. Tim Tsai.]
[Begin Key Thread...]
Current set: Use COM1 115200,N,8,1
AutoRun:
Autodownload files: None
Current work directory="D:\vic\752n\752N_V3_20061023\7188XC"
original baudrate = 9600!
now baudrate = 115200!

7188xwCmd:b9600original baudrate = 115200!
now baudrate = 9600!

Current baud rate is 9600

{change to Line Mode}
$01M
!017521
:01abcde
```

The following screen should be shown on the Remote PC:

```
C:\ 7188X W 1.32 [COM1:9600,N,8,1],FC=0,CTS=0, DIR=D:\vic\752n\752N_V3_20061... - _ X
D:\vic\752n\752N_V3_20061023\7188XC>7188xw/c7

7188x for WIN32 version 1.32 (2006/10/17)[By ICPDAS. Tim
Tsai.]
[Begin Key Thread...]
Current set: Use COM7 115200,N,8,1
AutoRun:
Autodownload files: None
Current work
directory="D:\vic\752n\752N_V3_20061023\7188XC"
original baudrate = 1200!
now baudrate = 115200!

7188xwCmd:b9600original baudrate = 115200!
now baudrate = 9600!

Current baud rate is 9600

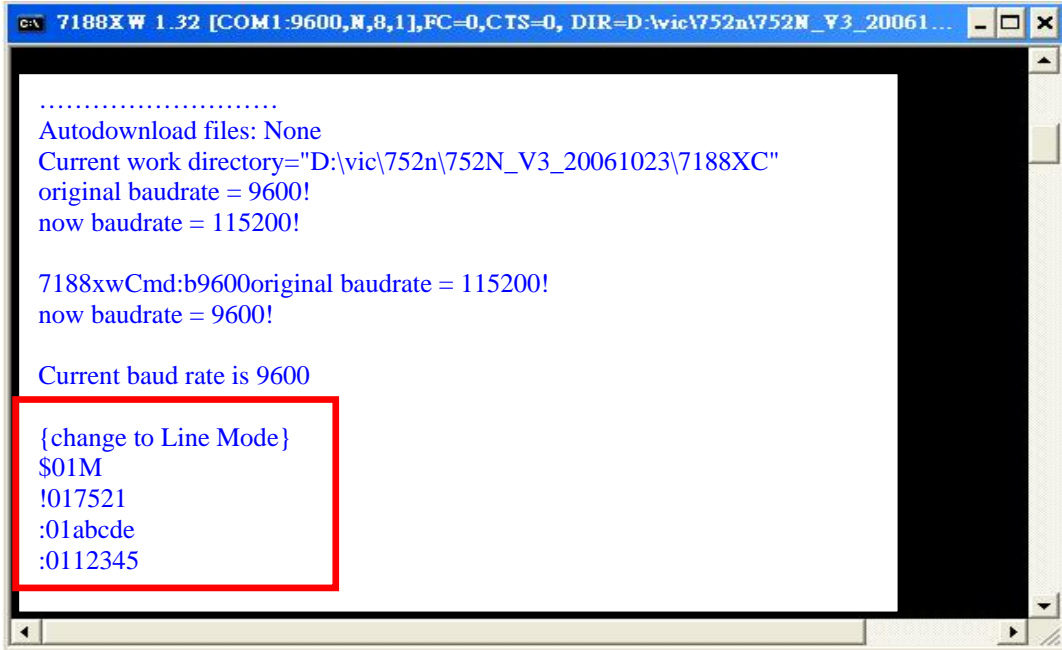
abcde
```

Step 5: Send **12345** from the Host PC to the Remote PC  
Type **:0112345** (Refer to Sec. 3.10 in the ## (page 14)for bypassing the data string)

Press **ENTER** to send the command string to the I-752N module

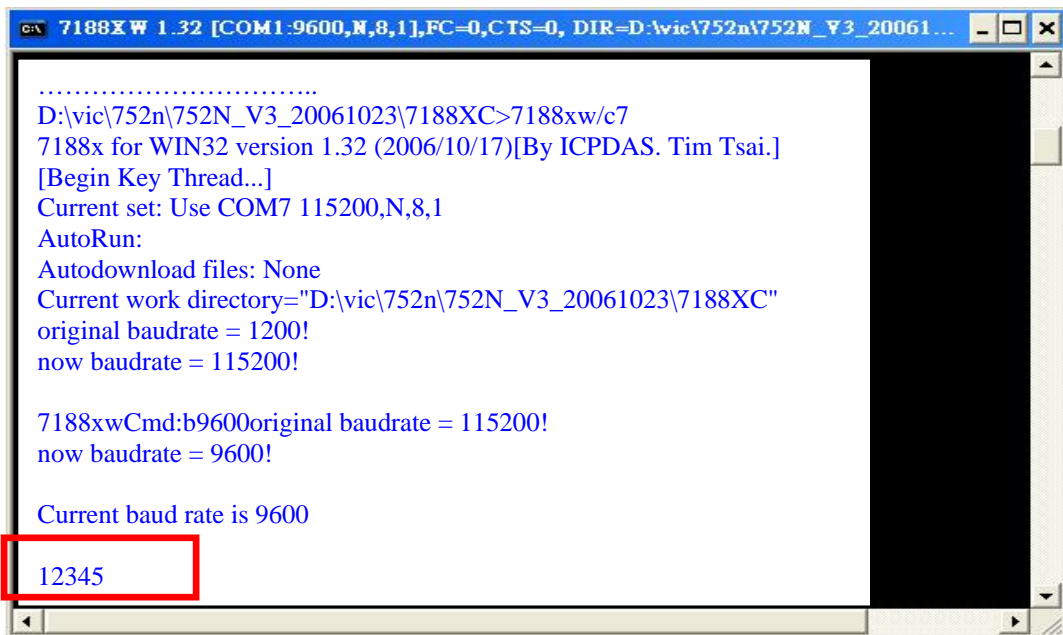
Check that the response string from the Remote PC is **12345**

The following screen should be shown on the Host PC:



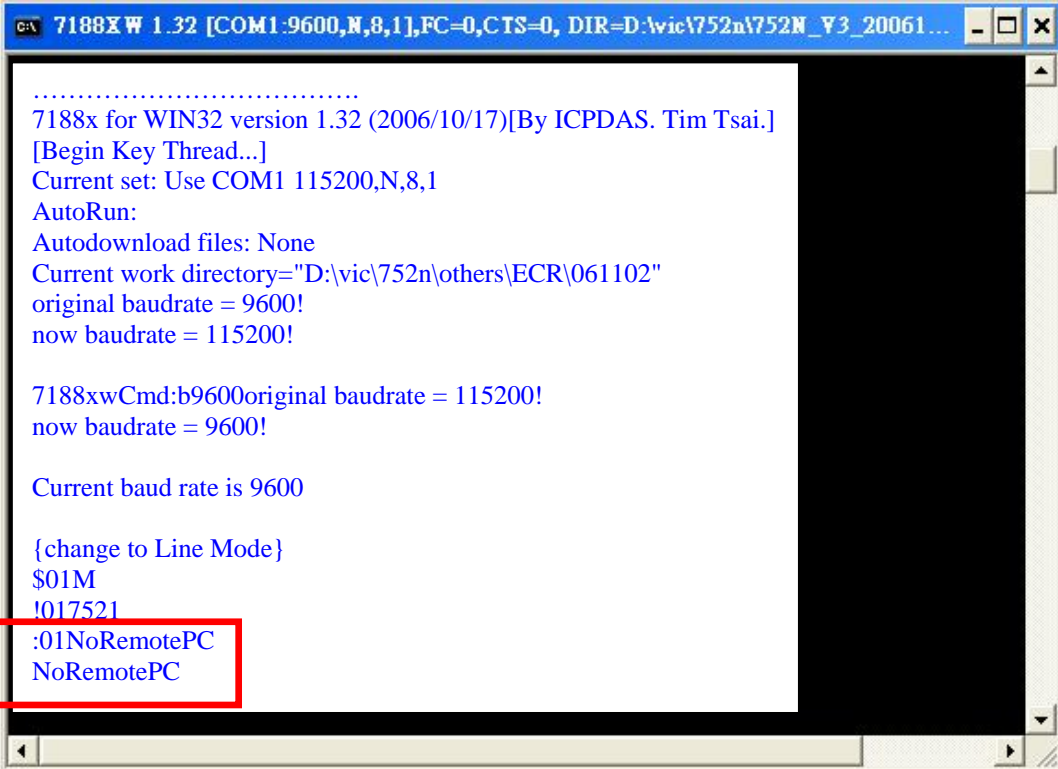
```
.....  
Autodownload files: None  
Current work directory="D:\vic\752n\752N_V3_20061023\7188XC"  
original baudrate = 9600!  
now baudrate = 115200!  
  
7188xwCmd:b9600original baudrate = 115200!  
now baudrate = 9600!  
  
Current baud rate is 9600  
  
{change to Line Mode}  
$01M  
!017521  
:01abcde  
:0112345
```

The following screen should be shown on the Remote PC:



```
.....  
D:\vic\752n\752N_V3_20061023\7188XC>7188xw/c7  
7188x for WIN32 version 1.32 (2006/10/17)[By ICPDAS. Tim Tsai.]  
[Begin Key Thread...]  
Current set: Use COM7 115200,N,8,1  
AutoRun:  
Autodownload files: None  
Current work directory="D:\vic\752n\752N_V3_20061023\7188XC"  
original baudrate = 1200!  
now baudrate = 115200!  
  
7188xwCmd:b9600original baudrate = 115200!  
now baudrate = 9600!  
  
Current baud rate is 9600  
  
12345
```

Note: If no Remote PC is available, the test can be performed by connecting TxD and RxD to the same COM port.

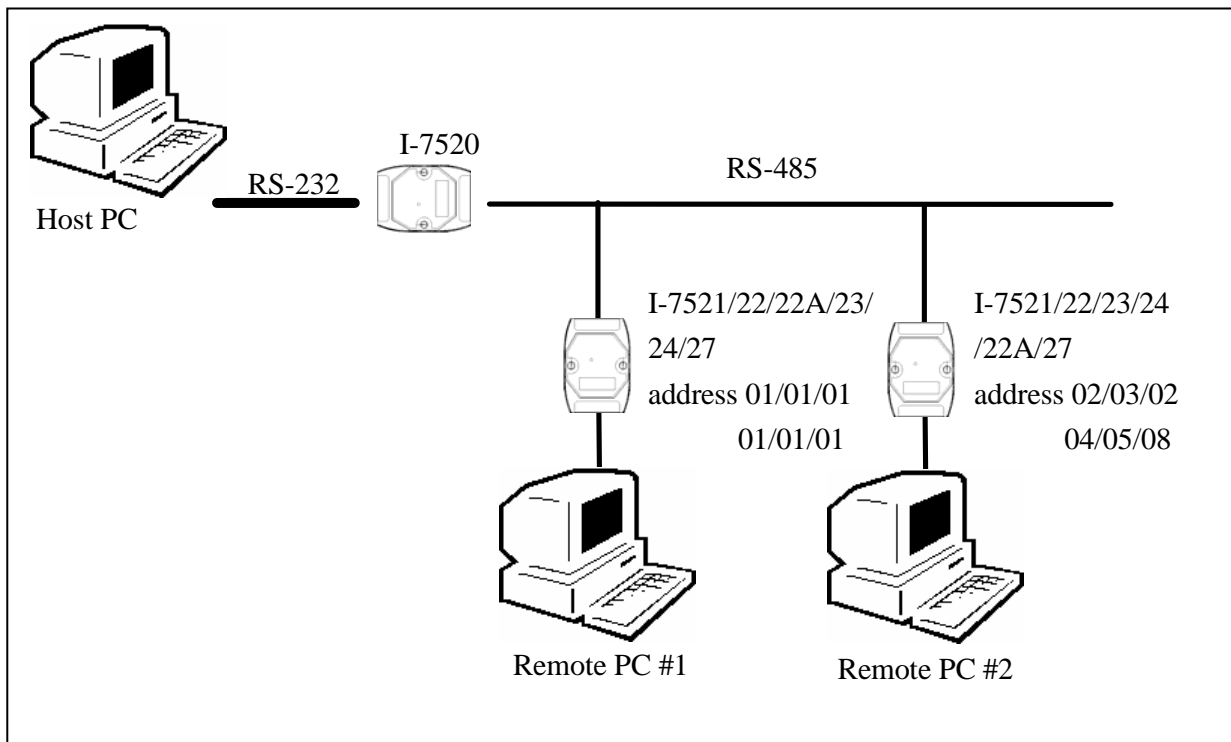


```
7188XW 1.32 [COM1:9600,N,8,1],FC=0,CTS=0, DIR=D:\vic\752n\752M_V3_20061...  
.....  
7188x for WIN32 version 1.32 (2006/10/17)[By ICPDAS. Tim Tsai.]  
[Begin Key Thread...]  
Current set: Use COM1 115200,N,8,1  
AutoRun:  
Autodownload files: None  
Current work directory="D:\vic\752n\others\ECR\061102"  
original baudrate = 9600!  
now baudrate = 115200!  
  
7188xwCmd:b9600original baudrate = 115200!  
now baudrate = 9600!  
  
Current baud rate is 9600  
  
{change to Line Mode}  
$01M  
!017521  
:01NoRemotePC  
NoRemotePC
```

## 1.4 Quick Start 3: Connecting to Multiple Remote RS232 Devices

Step 1: Refer to Quick Start 1 for wiring details and the method used to change the address and default parameters of the I-752N module

Step 2: Connect the second I-752N module to the RS-485 network and the two Remote PCs as follows:



There should now be two I-752N modules connected to the RS-485 network. The module address of the first I-752N module is **address 01**, and the second is **address 02/03/04/05/08**. The communication status parameters of the two I-752N modules will be same, i.e. **9600, N, 8, 1**.

Step 3: Execute 7188xw.exe on the two Remote PCs

Refer to Steps 3 to 8 of Quick Start 1 for details to see how to change the COM port and status settings to **9600, N, 8, 1**.

Step 4: Send **To-Remote-PC1** from the Host PC to the first Remote PC (PC1)  
Type **:01To-Remote-PC1** (Refer to Sec. 3.10 in the ## (page 14)for  
bypassing the data string)

Press **ENTER** to send the command string to the I-752N module

The following screen will be shown on the Host PC:

```
.....  
7188x for WIN32 version 1.32 (2006/10/17)[By ICPDAS. Tim Tsai.]  
[Begin Key Thread...]  
Current set: Use COM1 115200,N,8,1  
AutoRun:  
Autodownload files: None  
Current work directory="D:\vic\752n\others\ECR\061102"  
original baudrate = 9600!  
now baudrate = 115200!  
  
7188xwCmd:b9600original baudrate = 115200!  
now baudrate = 9600!  
  
Current baud rate is 9600  
  
{ change to Line Mode}  
:01To-Remote-PC1
```

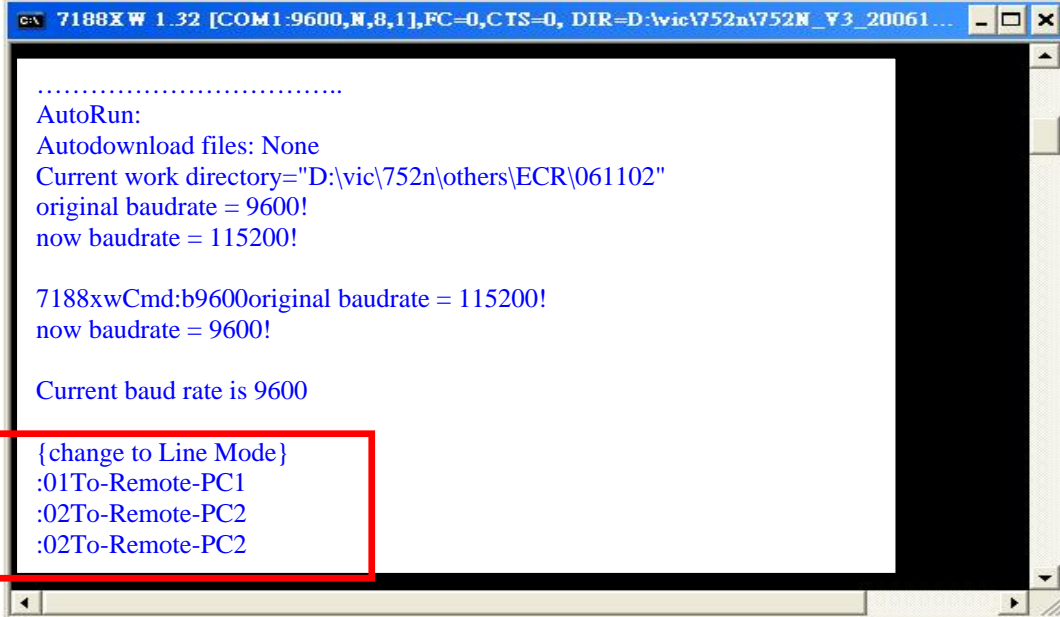
The following screen will be shown on the first Remote PC (PC1):  
(Press ALT+L to change to Line Mode)

```
.....  
7188x for WIN32 version 1.32 (2006/10/17)[By ICPDAS. Tim Tsai.]  
[Begin Key Thread...]  
Current set: Use COM7 115200,N,8,1  
AutoRun:  
Autodownload files: None  
Current work directory="D:\vic\752n\others\ECR\061102"  
original baudrate = 9600!  
now baudrate = 115200!  
  
7188xwCmd:b9600original baudrate = 115200!  
now baudrate = 9600!  
  
Current baud rate is 9600  
  
{ change to Line Mode}  
To-Remote-PC1
```

Step 5: Send **To-Remote-PC2** from the Host PC the second Remote PC(PC2)  
Type **:02To-Remote-PC2** (Refer to Sec. 3.10 in the ## (page 14)  
for bypassing the data string)

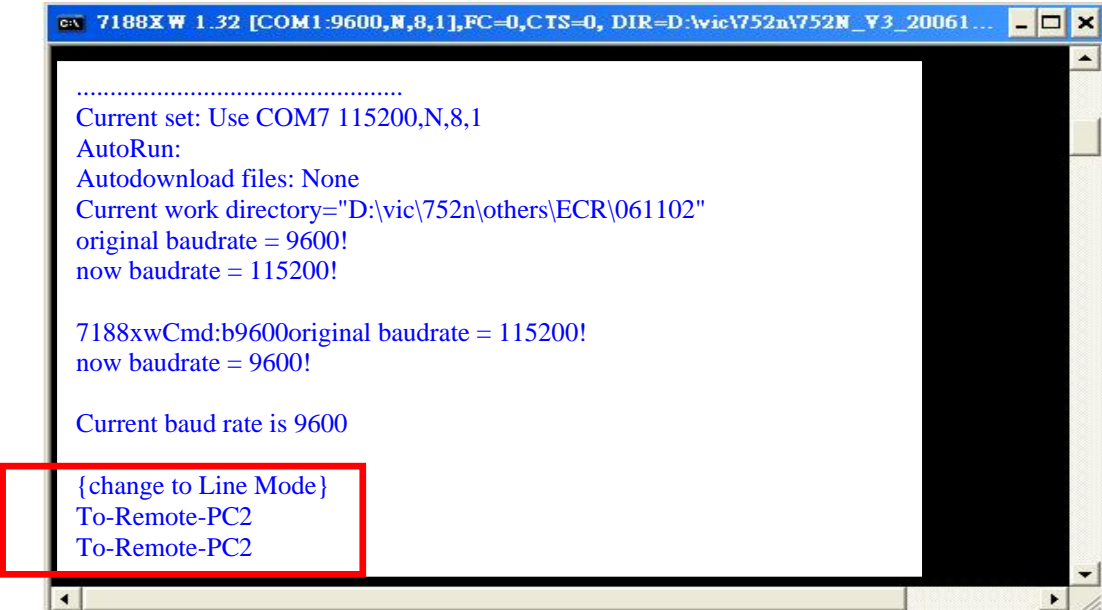
Press **ENTER** to send the command string to the I-752N module  
Type **:02To-Remote-PC2**  
Press **ENTER** to send the command string to the I-752N module

The following screen will be shown on the Host PC:



```
.....  
AutoRun:  
Autodownload files: None  
Current work directory="D:\vic\752n\others\ECR\061102"  
original baudrate = 9600!  
now baudrate = 115200!  
  
7188xwCmd:b9600original baudrate = 115200!  
now baudrate = 9600!  
  
Current baud rate is 9600  
  
{ change to Line Mode }  
:01To-Remote-PC1  
:02To-Remote-PC2  
:02To-Remote-PC2
```

The following screen will be shown on the second Remote PC (PC2):



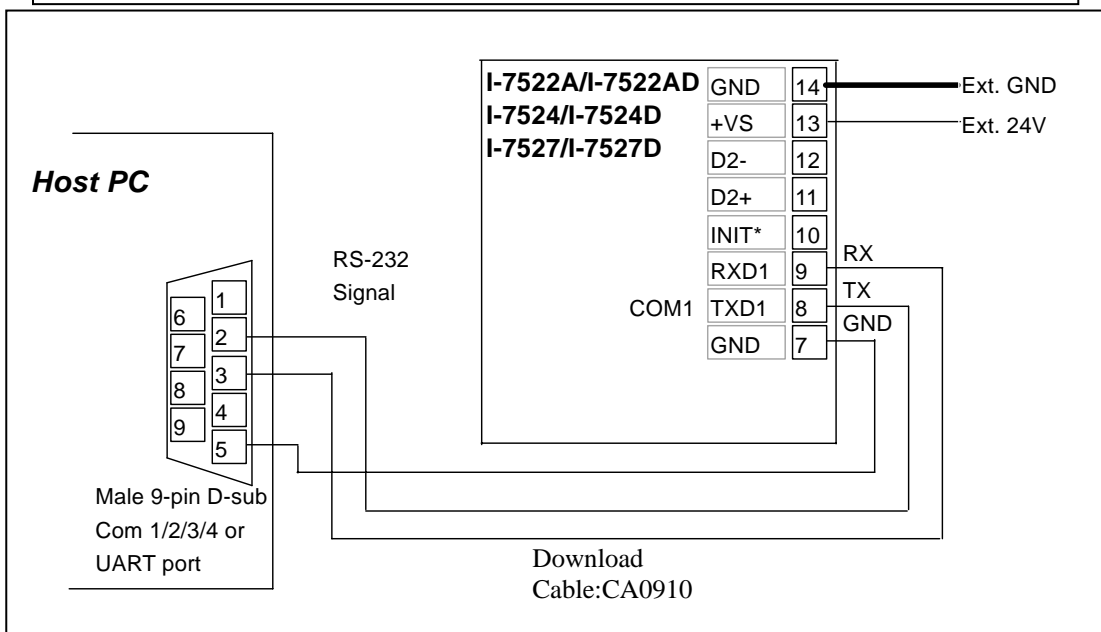
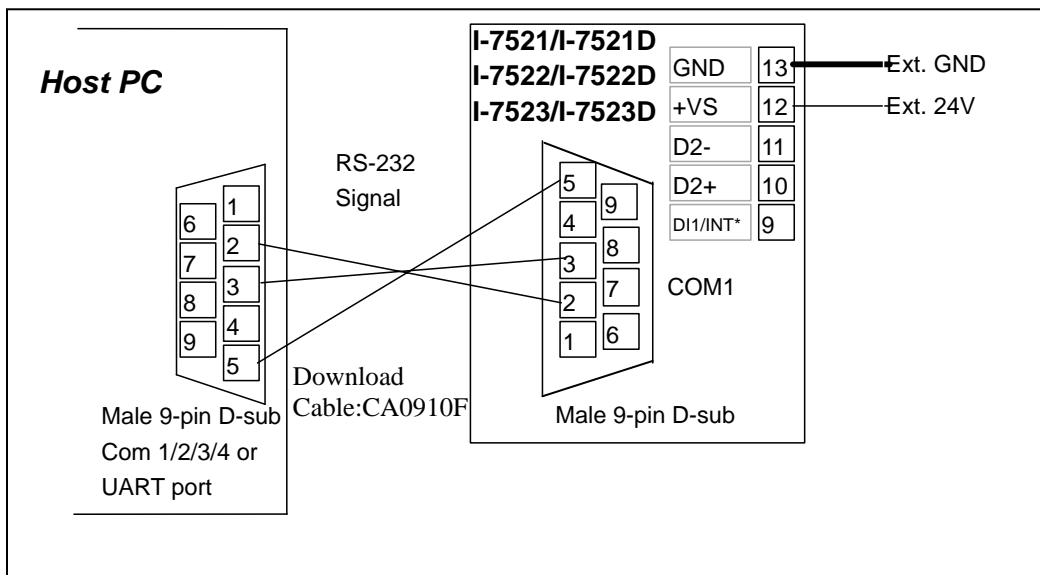
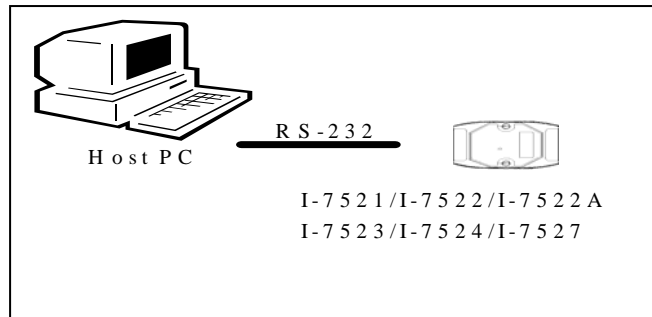
```
.....  
Current set: Use COM7 115200,N,8,1  
AutoRun:  
Autodownload files: None  
Current work directory="D:\vic\752n\others\ECR\061102"  
original baudrate = 9600!  
now baudrate = 115200!  
  
7188xwCmd:b9600original baudrate = 115200!  
now baudrate = 9600!  
  
Current baud rate is 9600  
  
{ change to Line Mode }  
To-Remote-PC2  
To-Remote-PC2
```

##: I-7521/I-7522/I-7522A/I-7523/I-7524/I-7527 Software User's Manual

# 1.5 Download new Firmware to I-752N

## 1.5.1 Using 7188xw.exe to download

Step 1: Connect the I-752N module to the Host PC as follows:





Step 2: Connect INT\* pin to GND pin to disable autoexec.bat before turning on the power

Step 3: Build a folder which includes firmware.

Two ways to use 7188xw.exe:

a) Put firmware and 7188xw.exe in the same folder on the Host PC.

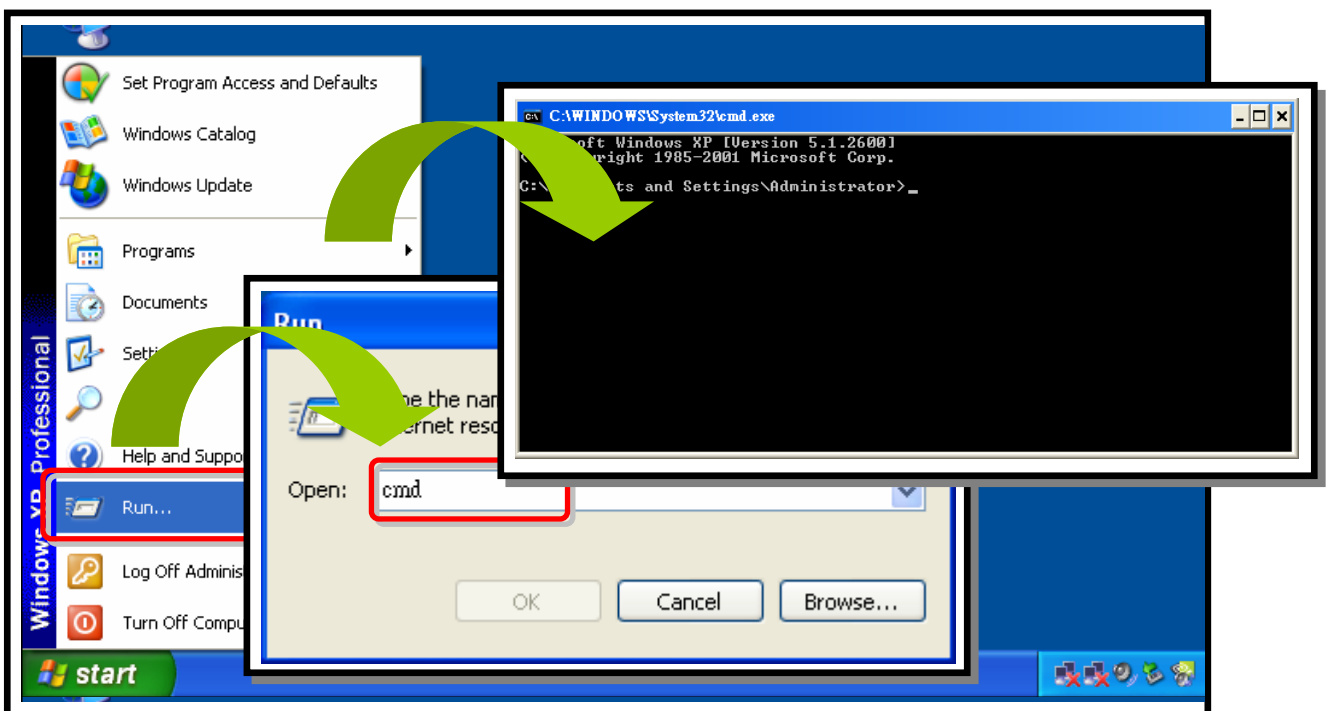
Execute 7188xw.exe and jump to Step 8.

b) Jump to Step 4

(Refer to Sec 1.1 for new firmware.)

Step 4: Copy the 7188xw.exe file to the PATH directory, for example C:\DOS or C:\WINDOWS and then it will be able to be executed to download files from any location

Step 5: Run a MS-DOS box in windows is as follows:



Step 6: Type **d:** to enter D:\>

Type **cd [the location of file that will be downloaded]**,

like **cd 752n\_c\_060206** to enter 752n\_c\_060206 folder

Press **ENTER**

The following screen will be shown for I-7521/22/23 on the Host PC:

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\vic_tsai>d:

D:\>cd 752n_c_060206

D:\752n_c_060206>
```

Step 7: Select the active COM port of the Host PC and execute 7188xw.exe

If the I-752N is connected to COM1 on PC, then type **7188xw/c1**

If the I-752N is connected to COM2 on PC, then type **7188xw/c2**

Press **ENTER**

The following screen will be shown for I-7521/22/23 on the Host PC:

```
7188XW 1.32 [COM1:9600,N,8,1],FC=0,CTS=0, DIR=D:\vic\752n\752N_Y3_20061...
Microsoft Windows XP [版本 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\vic_tsai>d:

D:\>cd 752n_c_060206

D:\752n_c_060206>7188xw/c1

7188x for WIN32 version 1.32 (2006/10/17)[By ICPDAS.
Tim Tsai.]
[Begin Key Thread...]
Current set: Use COM1 115200,N,8,1
AutoRun:
Autodownload files: None
Current work directory="D:\752n_c_060206"
original baudrate = 9600!
now baudrate = 115200!
```

Step 8: Refer to Steps 4 to 7 of Sec 1.2 Quick Start 1 to change the configurations of 7188xw.exe to 115200, N, 8,1

Press **ENTER**

```
.....
D:\752n_c_060206>7188xw/c1

7188x for WIN32 version 1.32 (2006/10/17)[By ICPDAS.
Tim Tsai.]
[Begin Key Thread...]
Current set: Use COM1 115200,N,8,1
AutoRun:
Autodownload files: None
Current work directory="D:\752n_c_060206"
original baudrate = 115200!
now baudrate = 115200!

i7188XC>
```

Step 9: Type **dir**

Press **ENTER**

The following screen will be shown for I-7521/22/23 on the Host PC:

```
.....
7188x for WIN32 version 1.32 (2006/10/17)[By ICPDAS. Tim Tsai.]
[Begin Key Thread...]
Current set: Use COM1 115200,N,8,1
AutoRun:
Autodownload files: None
Current work directory="D:\752n_c_060206"
original baudrate = 115200!
now baudrate = 115200!

i7188XC>dir

 0)autoexec.bat 11/25/2005 12:37:15  10[0000A]C002:0000-C002:000A
 1)752n_c.exe  02/06/2006 15:19:11 39024[09870]C004:000A-C98B:000A
Total File number is 2 Free space=157478 bytes
i7188XC>
```

Step 10: Press **F4** to download files automatically.

The MiniOS7 will then download 752n\_c.exe and autoexec.bat from the Host PC to the module. After the download operation has been completed, the following screen will be shown:

```
7188X W 1.32 [COM1:9600,N,8,1],FC=0,CTS=0, DIR=D:\wic\752n\752N_Y3_20061...
.....
1)752n_c.exe 02/06/2006 15:19:11 39024[09870]C004:000A-C98B:000A
Total File number is 2 Free space=157478 bytes
i7188XC>del /y
Total File number is 2, do you really want to delete(y/n)?

i7188XC>LOAD
File will save to C000:0000
StartAddr-->B000:FFFF
Press ALT_E to download file!
Load file:autoexec.bat[crc=9723,0000]
Send file info. total 1 blocks
Block 1
Transfer time is: 0.125000 seconds

i7188XC>LOAD
File will save to C002:000A
StartAddr-->C000:0029
Press ALT_E to download file!
Load file:752n_c.exe[crc=7E10,0000]
Send file info. total 153 blocks
Block 153
Transfer time is: 14.391000 seconds

i7188XC>
```

Step 11: Type **dir** and press **Enter** to see the downloaded files.  
(752n\_c.exe for I-7521/22/23, 752n\_b.exe for I-7524/22A/27)

```
7188X W 1.32 [COM1:9600,N,8,1],FC=0,CTS=0, DIR=D:\wic\752n\752N_Y3_20061...
i7188XC>dir
0)autoexec.bat 11/25/2005 12:37:15 10[0000A]C002:0000-C002:000A
1)752n_c.exe 02/06/2006 15:19:11 39024[09870]C004:000A-C98B:000A
Total File number is 2 Free space=157478 bytes
i7188XC>
```

Step 12: Disconnect the DI1/INIT\* pin from GND and power-off then power-on the I-7521/22/23/22A/24/27 module. The MiniOS7 will automatically execute the new firmware.

## 1.5.2 Using MiniOS7 Utility to download

Refer to Sec. 1.1.