SYNRAD Technical Bulletin

900-20955-28
V1.0

Technical Issue: Marking Head IP Address unknown and/or incorrect causing communication issues between HW/SW.

Date: February 23rd, 2015

Description:

Marking Head communication failure: Firmware was unable to successfully communicate with the Marking Head HW.

Hardware Required

Three (3) cables:

(1) Serial to USB adaptor	(1) RS232 to 10 pin adapter	(1) Standard RS232 DB9 serial cable
Serial to USB adaptor	Serial to 10 pin adaptor	RS232 DB9 Serial

Software Required

Open source Tera Term terminal emulation program. http://en.sourceforge.jp/projects/ttssh2/releases/

For further information contact SYNRAD at 1.800.796.7231; outside
the U.S., dial +1.425.349.3500 or fax us at +1.425.349.3667.
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Instructions for setting up the hardware

Figure 1

1. Plug the Serial to 10 pin adapter into the UART J1 port that sits on the board (See figure 1).

2. Plug the free end of the serial to 10 cable to the Standard RS232 DB9 cable.

3. Plug the other end of the Standard RS232 DB9 cable to the Serial-to-USB adaptor.
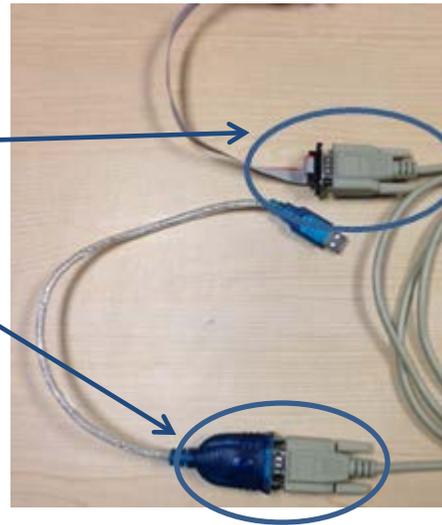
4. Lastly, plug the USB into the PC.

Figure 2.
RS232 DB9 to Serial to 10 pin connection

Instructions for troubleshooting IP Addresses

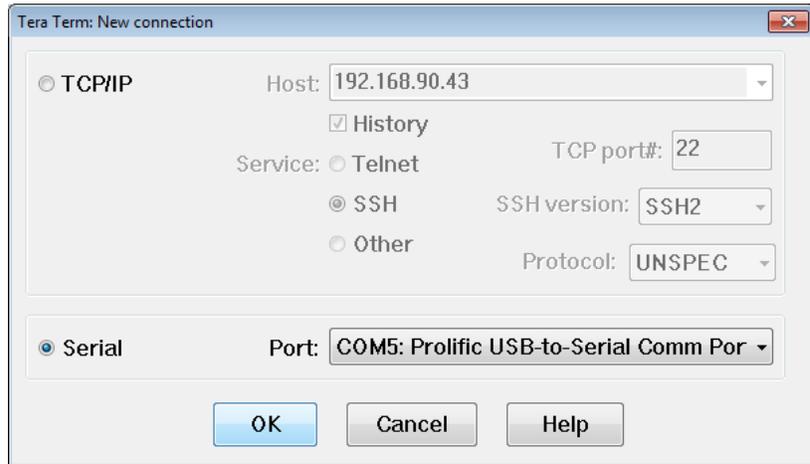5. Open Tera Term terminal emulation program by selecting the following desktop icon.
   Note: Use one of the com ports that are assigned automatically. In this example, com5 is used.

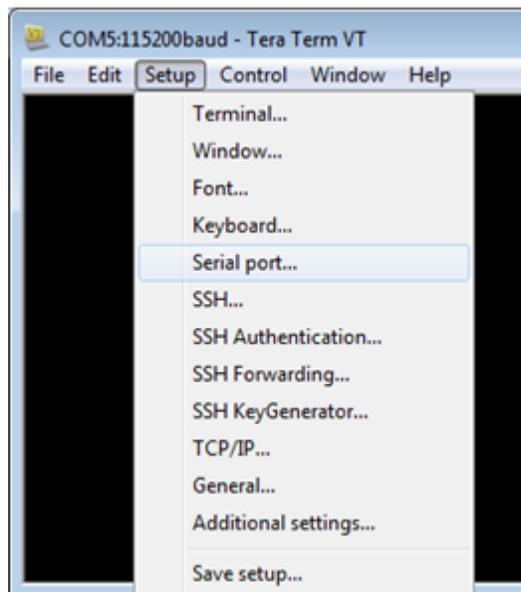6. Select the Serial radio button, choose port from the dropdown.
   Note: The program will suggest a COM port. Confirm by using the dropdown if active.
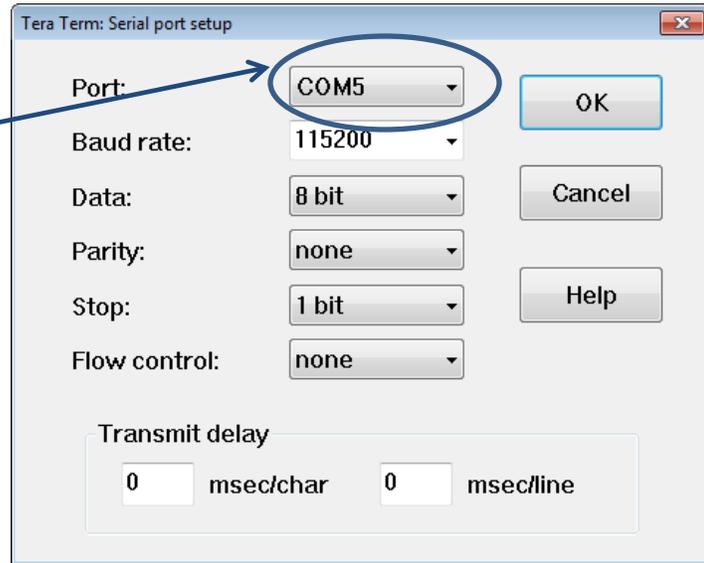

Screenshot 1

7. Click OK.

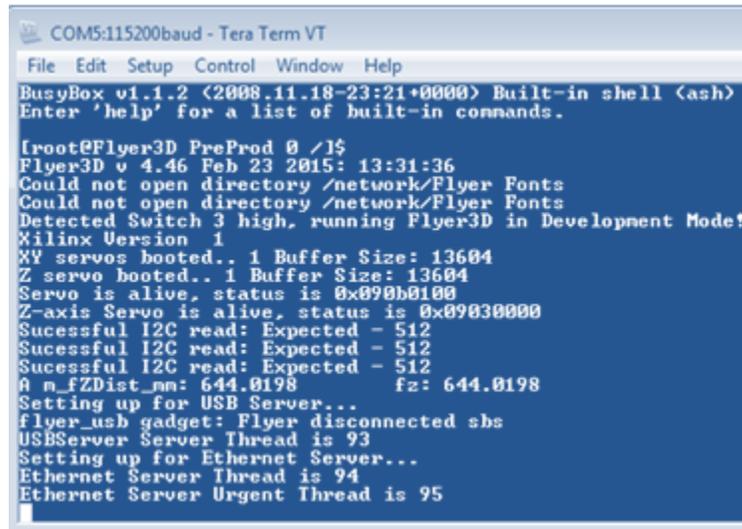8. Go to Setup>Serial port

Screenshot 2

9. Choose the proper port. Enter the required values for Baud rate, Data, Parity, Stop, and Flow control exactly as in screenshot 3. These values are required for Marking Head connection via RS-232.

10. Click OK.

Screenshot 3

11. Power up marking head. The Terminal program (command prompt) should be open. See screenshot 4 for a successful power up. If your command prompt message errors, repeat steps 5 to 10.
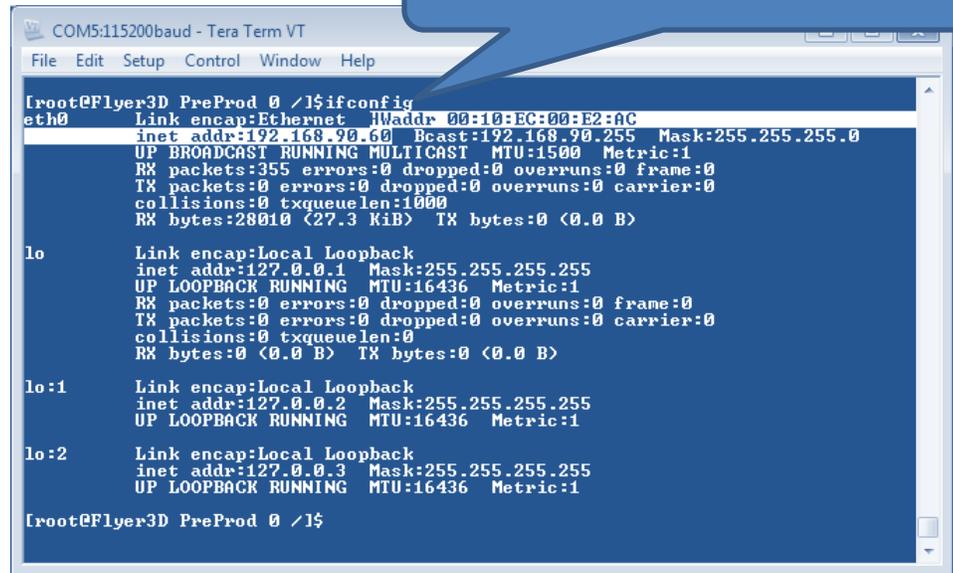
Screenshot 4

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12. Enter ⏎ once in the command prompt to get a new line and type at the 1$ prompt:

    Ifconfig

13. Enter ⏎
    Note: The highlighted text has the current IP hardware address at the inet addr: prompt.

> HWaddr 00:10:EC:00:E2:AC inet addr:192.168.90.60

```
COM5:115200baud - Tera Term VT
File  Edit  Setup  Control  Window  Help

[root@Flyer3D PreProd 0 /]$ifconfig
eth0      Link encap:Ethernet  HWaddr 00:10:EC:00:E2:AC
          inet addr:192.168.90.60  Bcast:192.168.90.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:355 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:28010 (27.3 KiB)  TX bytes:0 (0.0 B)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.255.255.255
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

lo:1      Link encap:Local Loopback
          inet addr:127.0.0.2  Mask:255.255.255.255
          UP LOOPBACK RUNNING  MTU:16436  Metric:1

lo:2      Link encap:Local Loopback
          inet addr:127.0.0.3  Mask:255.255.255.255
          UP LOOPBACK RUNNING  MTU:16436  Metric:1

[root@Flyer3D PreProd 0 /]$
```

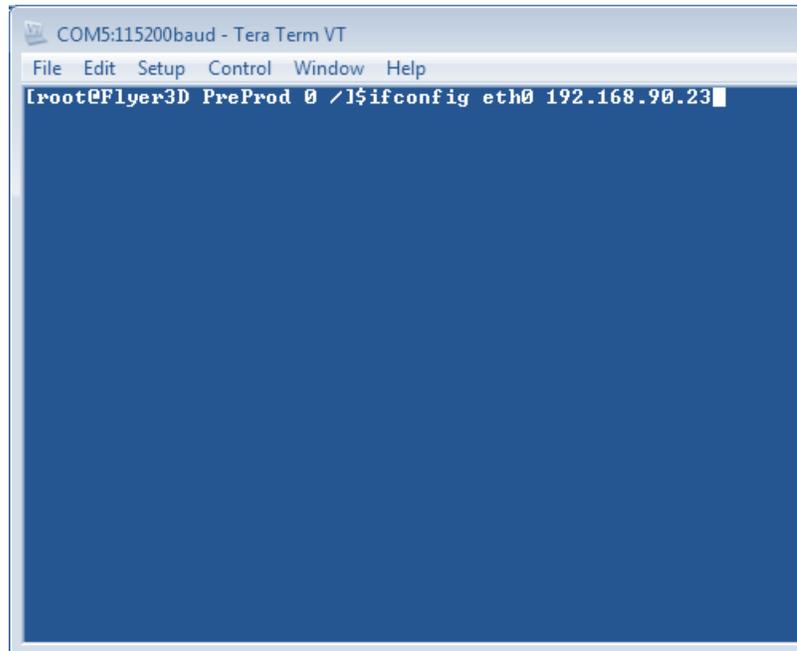**Screenshot 5. Example of IP address**

14. To change an IP address:

    Enter ⏎ once in the command prompt to get a new line and type at the 1$ prompt:

    Ifconfig eth0 insert valid IP address here

    Note: See screenshot 6 for example.
    `]$ifconfig eth0 192.168.90`

```
COM5:115200baud - Tera Term VT
File  Edit  Setup  Control  Window  Help
[root@Flyer3D PreProd 0 /]$ifconfig eth0 192.168.90.23
```

Screenshot 6

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