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# 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 23<sup>rd</sup>, 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/



### Instructions for setting up the hardware

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



Figure 1

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

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.



# Instructions for troubleshooting IP Addresses

5. Open Tera Term terminal emulation program by selecting the following

> desktop icon. **Example** Note: Use one of the com ports that are assigned automatically. In this example, com5 is used.

T

- 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.
- 7. Click OK.

TCP/IP	Host: 192.168.90.4	13
	☑ History	
	Service: O Telnet	TCP port#: 22
	⊚ SSH	SSH version: SSH2
	⊙ 0ther	Protocol: UNSPEC
) Serial	Port: COM5: Prol	ific USB-to-Serial Comm Por
		Holp

Screenshot 1

🚇 COM5:115200baud - Tera Term VT



Screenshot 2

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8. Go to Setup>Serial port



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Tera Term: Serial port setup × COM5 Port: 0K 115200 Baud rate: 9. Choose the proper port. Enter the required values Cancel Data: 8 bit • for Baud rate, Data, Parity, none Parity: Stop, and Flow control • exactly as in screenshot 3. Help 1 bit Stop: • These values are required for Marking Head Flow control: none Ŧ connection via RS-232. Transmit delay 10. Click OK. 0 0 msec/char msec/line

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.

🚇 COM5:115200baud - Tera Term VT	
File Edit Setup Control Window Help	
BusyBox v1.1.2 <2008.11.18-23:21+0000> Built-in shell <ash Enter 'help' for a list of built-in commands.</ash 	<b>`</b>
<pre>Iroot@Flyer3D PreProd 0 /15 Flyer3D v 4.46 Feb 23 2015: 13:31:36 Could not open directory /network/Flyer Fonts Could not open directory /network/Flyer Fonts Detected Switch 3 high, running Flyer3D in Development Mode Xilinx Version 1 XY servos booted 1 Buffer Size: 13604 Z servo booted 1 Buffer Size: 13604 Servo is alive, status is 0x090b0100 Z-axis Servo is alive, status is 0x09030000 Successful I2C read: Expected - 512 Successful I2C read: Successful I2C read: Successful</pre>	e <b>:</b>

Screenshot 4

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

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.

14. To change an IP address: Enter **H**once in the command prompt to get a new line and type at the

Ifconfig eth0 insert valid

Note: See screenshot 6

1\$ prompt:

IP address here

for example.

COM5	:115200baud - Tera Term VT	~
File Edi	t Setup Control Window Help	
[root@F	'lyer3D PreProd Ø /l\$ifconfig	
66110	inet addr:192.168.90.60 Bcast:192.168.90.255 Mask:255.255.2	
	UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1	
	TX packets:0 errors:0 dropped:0 overruns:0 carrier:0	
	collisions:0 txqueuelen:1000	
	RX bytes:28010 (27.3 KiB) 1X bytes:0 (0.0 B)	
10	Link encap:Local Loopback	
	inet addr:127.0.0.1 Mask:255.255.255.255	
	UP LOUPBHCK KUNNING MIU:16436 Metric:1 RX nackets:0 errors:0 dronned:0 overrups:0 frame:0	
	TX packets:0 errors:0 dropped:0 overruns:0 carrier:0	
	collisions:0 txqueuelen:0	
	RA Dytes:0 (0.0 D) IA Dytes:0 (0.0 D)	
lo:1	Link encap:Local Loopback	
	inet addr:127.0.0.2 Mask:255.255.255.255	
	OL POALDHOK VOMMING MID-10430 MECLIC-1	
1o:2	Link encap:Local Loopback	
	inet addr:127.0.0.3 Mask:255.255.255.255 UP LOOPBOCK RUNNING MTU:16436 Metwic:1	
[root@F	'lyer3D PreProd Ø /l\$	

Screenshot 5. Example of IP address



**Screenshot 6** 

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