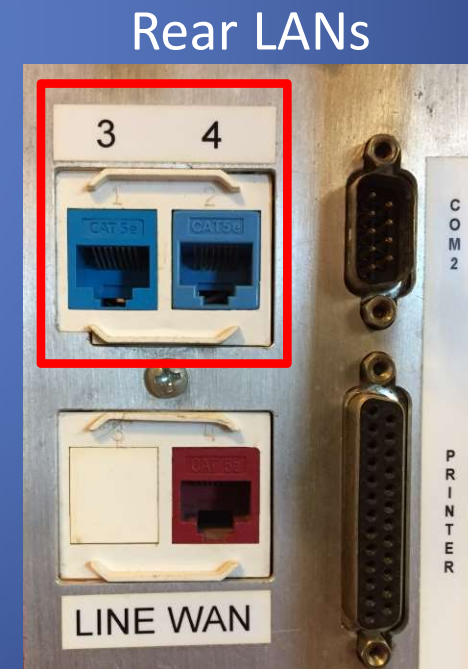# Networking

Updated November 6th, 2017

Connecting Logging Computer to MLogger

The logging computer can be connected to the MLogger using a wired connection or a wireless connection.

1. Wired Connection

   a. Using an Ethernet cable, connect one end to the logging computer and connect the other end to any of the 3 blue LAN ports on the MLogger.

Front LAN

Rear LANs

2. Wireless Connection

    a. If the logging computer has wireless capabilities, select the "MLogger" network from the available wireless networks list and enter the password, 12345678. If needed, search on the internet for instructions on how to connect to a wireless network.
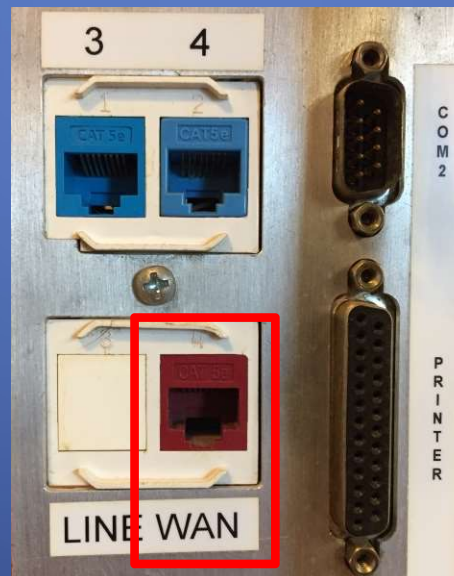
MLogger Network

Connecting Internet to MLogger

If an external internet source is available from the rig, it can be plugged into the MLogger so that the MLogger and any device that is connected to the MLogger can use that same 'rig' internet. If no 'rig' internet is available, then the MLogger's Verizon Air Card can be used.

1. Rig Internet
   a. Connect the Ethernet cable that is supplying the rig internet to the red WAN port on the rear panel of the MLogger. **DO NOT** plug the rig internet into a blue LAN port.

WAN Port

2. Verizon Air Card

   a. After connecting to the MLogger with TControl, go to the Tools menu and select Manage Wireless. This will open a webpage on the MLogger's internal router that will display network information.

   b. Select Verizon Only from the dropdown menu on the right side of the page.

Make sure Current Provider displays Verizon.

Displays signal strength. Lower negative values are better.

Internet Status will display "Using 3G Data" if the router is actually using the air card. It will display "Using WAN Data" if it's receiving internet through the red WAN port on the rear panel of the MLogger.

Needs to be set to Verizon Only.

Bandwidth cap needs to be off.

Connection Status needs to be Up.

ML-335 Router Info

BANDWIDTH USAGE (Weekly)

Total: 5 MB | 1019 MB remaining

CONNECTION STATUS

AT&T RSSI: -79 - Not roaming

Verizon RSSI: -95 - Not roaming

Current 3G Network swapping: Verizon only
Preferred 3G Network usage: Verizon Only ▾

MSI Servers Reachable: 3/3 100%
Network Latency: rtt 202 ms, mdev 33 ms
Packet Loss: 0%

Capped Status: NO bandwidth cap is in effect.
Router Time: Mon Nov 6 18:22:11 UTC 2017
US Mountain Time: Mon, 06 Nov 17 11:22:11 -0700

Connection Status: **3G cellular connection appears to be up.**
Internet Status: Using 3G data connection for all internet traffic.
inet addr:75.244.18.238 P-t-P:66.174.186.192 Mask:255.255.255.255

Please note: Bandwidth usage is tracked only on the 3G cellular connection.
This data plan allows 1GB per week (current week), and is throttled beyond that.

Router Software Version 10.0.8

Current Provider: verizon

TERRA SLS
SURFACE LOGGING SYSTEMS

Troubleshooting

No MLogger At That Address

When connecting TControl to an MLogger, the following error message can appear. This error can be caused by many different issues but they all imply the same thing; the logging computer cannot communicate with the MLogger and it can be due to a networking issue.
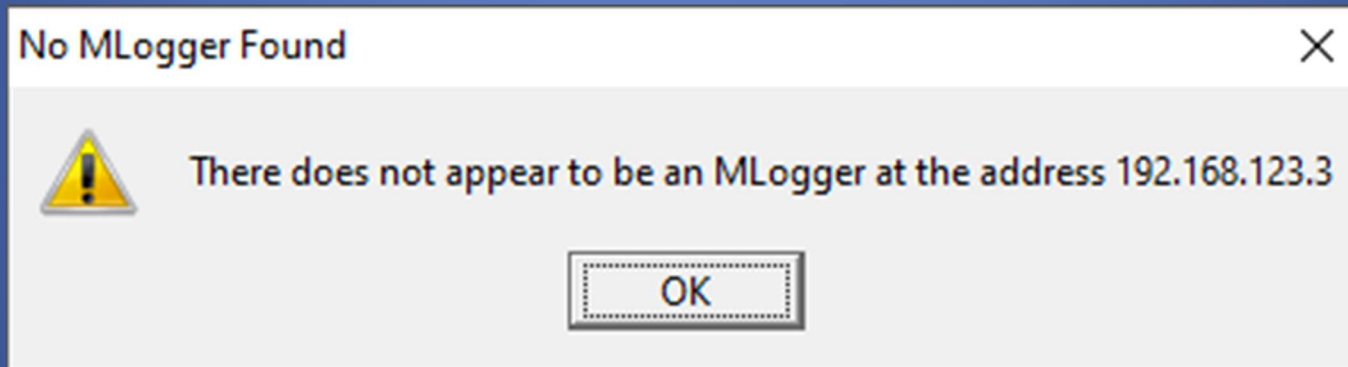
No MLogger At That Address (cont'd)

Logging Computer Isn't Connected to MLogger

If the logging computer is not connected to the MLogger, then TControl won't be able to connect.

1. Make sure that the logging computer is connected to the MLogger with an Ethernet cable.
2. Make sure that Ethernet cable is connected to a blue LAN port.
3. If a wireless connection is preferred, then make sure that the logging computer is connected to the MLogger network. If needed, search on the internet for instructions on how to view wireless networks.

Logging Computer Is Connected to a Different Wireless Network

The logging computer can be connected to a blue LAN port on the MLogger and simultaneously connected to a separate wireless network. This can cause a conflict.

1. If the logging computer is connected to a blue LAN port on the MLogger, make sure that the logging computer is not also connected to some other wireless network. If needed, search on the internet for instructions on how to view wireless networks.

Terra SLS
SURFACE LOGGING SYSTEMS

No MLogger At That Address (cont'd)

Rig Internet is Connected to Blue LAN

If the rig internet is connected to a blue LAN port, it can cause conflict with MLogger's router, resulting in TControl throwing the "No MLogger At That Address" error.

1. Make sure that the rig internet is plugged into the red WAN port.

2. The MLogger's router may need to be rebooted after this occurs. Rebooting the router is detailed on the next slide.

No MLogger At That Address (cont'd)

Router Needs to be Rebooted

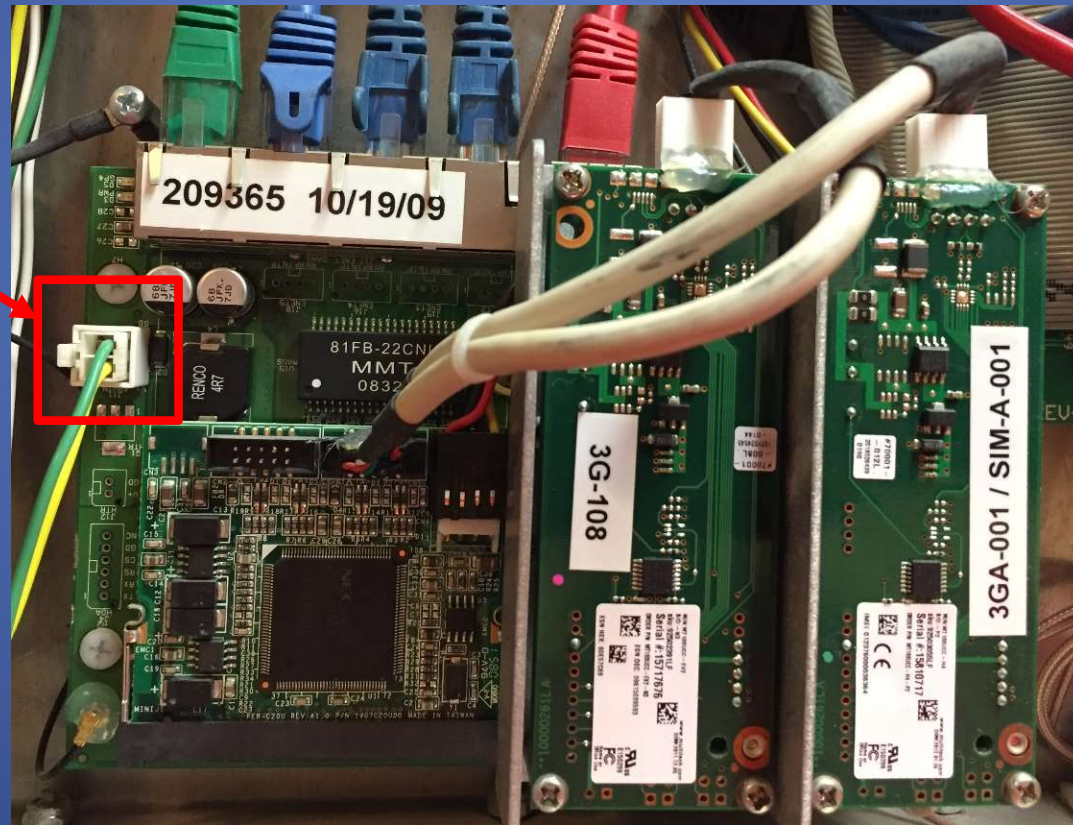If all of the networking is correct, the router may just need to be rebooted.

1. Loosen the two thumb screws on the front panel of the MLogger and slide the carriage out. If the carriage only slides out about half way, read the *MLogger Wont Open All The Way* troubleshooting guide.

2. Look at the right side of the box, the side with all the circuit boards.

3. Disconnect the power plug on the left side of the router for 30 seconds and plug it back in (image on next slide).

4. Close the MLogger by sliding the carriage back in and tightening the thumb screws on the front panel. If the carriage will not slide back in, read the *MLogger Will Not Close* troubleshooting guide.

5. Wait about a minute for the router to boot up and then try connecting with TControl again.

No MLogger At That Address (cont'd)

Router Needs to be Rebooted (cont'd)

Router

Power Plug

No MLogger At That Address (cont'd)

Green Ethernet Cable Needs to be Reseated

Sometimes the green Ethernet cable that connects the Router to the Processor will impede communication and can cause the "No MLogger At That Address" error.

1. Loosen the two thumb screws on the front panel of the MLogger and slide the carriage out. If the carriage only slides out about half way, read the *MLogger Wont Open All The Way* troubleshooting guide.

2. Look at the right side of the box, the side with all the circuit boards.

3. Disconnect and reconnect the green Ethernet cable from the Processor board and from the Router (image on next slide).

4. Close the MLogger by sliding the carriage back in and tightening the thumb screws on the front panel. If the carriage will not slide back in, read the *MLogger Will Not Close* troubleshooting guide.

5. Wait about a minute and then try connecting with TControl again.

No MLogger At That Address (cont'd)

Green Ethernet Cable Needs to be Reseated (cont'd)

Green Ethernet Cable
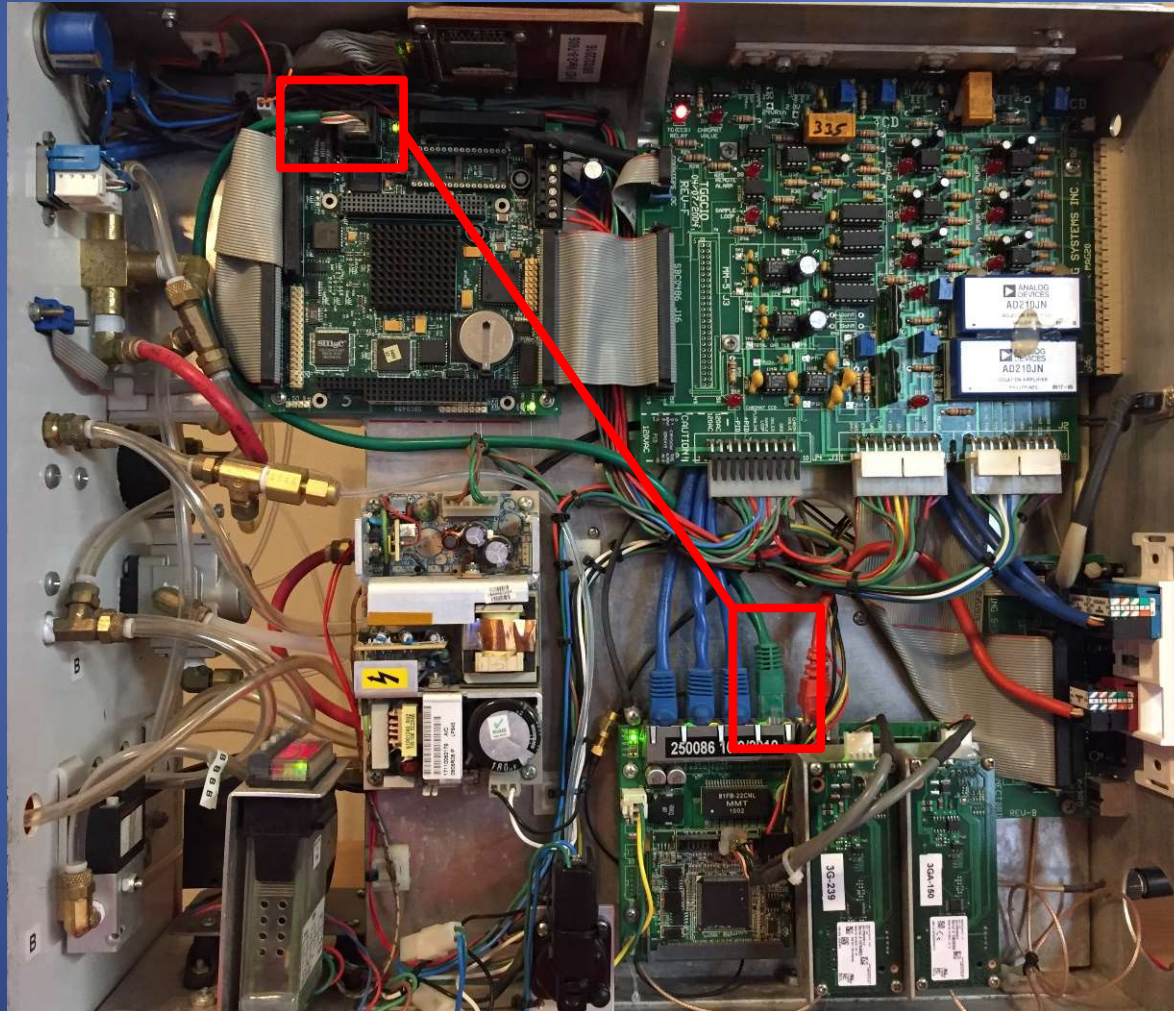
No MLogger At That Address (cont'd)

Logging Computer Needs to be Rebooted

Sometimes the IP address on the logging computer can get stuck and will not accept a new IP address from the MLogger's router. If the logging computer cannot retrieve a new IP address, then it can result in the "No MLogger At That Address" error.

1. Reboot the logging computer and then try to connect with TControl again.

2. If rebooting the computer does not work, try an IPconfig release/renew.

   a. Click the computer's Start menu (or Cortana), search for Command Prompt, and open it.

   b. In the Command Prompt window, type the command **ipconfig /release** and hit Enter.

   c. Then, in the same window, type the command **ipconfig /renew** and hit Enter.

   d. Next, in the same window, type the command **ipconfig** and hit Enter.

   e. Scroll up the Command Prompt window to view the new IPv4 address. The new IPv4 address should be 192.168.123.XXX.

```
Command Prompt

Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . : lan
   Link-local IPv6 Address . . . . . : fe80::cc23:ed91:c710:1f37%10
   IPv4 Address. . . . . . . . . . . : 192.168.123.250
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : 192.168.123.254
```

TERRA SLS
SURFACE LOGGING SYSTEMS

No MLogger At That Address (cont'd)

MLogger Needs to be Rebooted

Sometimes a software thread in the MLogger can stall out, resulting in a loss of communication between the MLogger and TControl.

1. Flip the power switch on the rear panel of the MLogger to the Off position for about 10 seconds and then turn it back on.

2. Wait for the I'm Alive light on the front panel of the MLogger to start blinking (it can take up to 8 minutes).

3. Try connecting with TControl again.

Power Switch