STANDARD OPERATING PROCEDURE

Echo Lumena Analyzer Setup on Analyzer Interface

1. Purpose

This SOP describes how to register, connect, verify, and troubleshoot an Echo Lumena analyzer on the Analyzer Interface. It also describes how Echo Lumena blood grouping results are expected to be processed and saved.

2. Scope

This procedure applies to Echo Lumena analyzers connected by TCP/IP to the Analyzer Interface PC. The same process can be repeated for multiple Echo Lumena analyzers on the same network.

3. Responsibilities

- Laboratory user: confirms analyzer identity, patient/sample IDs, and result visibility.

- IT or biomedical support: confirms network, IP address, port, firewall, and cabling.

- System administrator: registers the analyzer and maps Echo Lumena parameters to LIS tests.

4. Required Items

- Analyzer Interface installed and running.

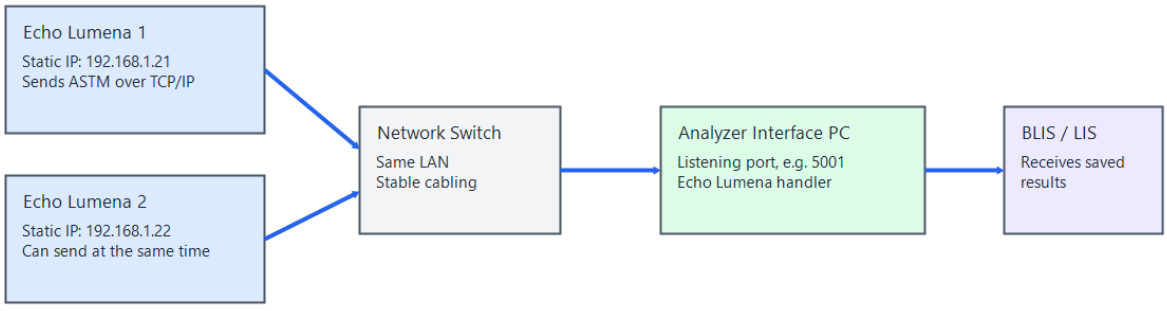
- Echo Lumena analyzer connected to the same LAN as the interface PC.

- Static IP address for the Computer where the Analyzer Interface is Setup.

- TCP port configured on the analyzer and allowed through the Windows firewall.

5. Echo Lumena Analyzer Setup

Echo Lumena TCP/IP Setup Topology

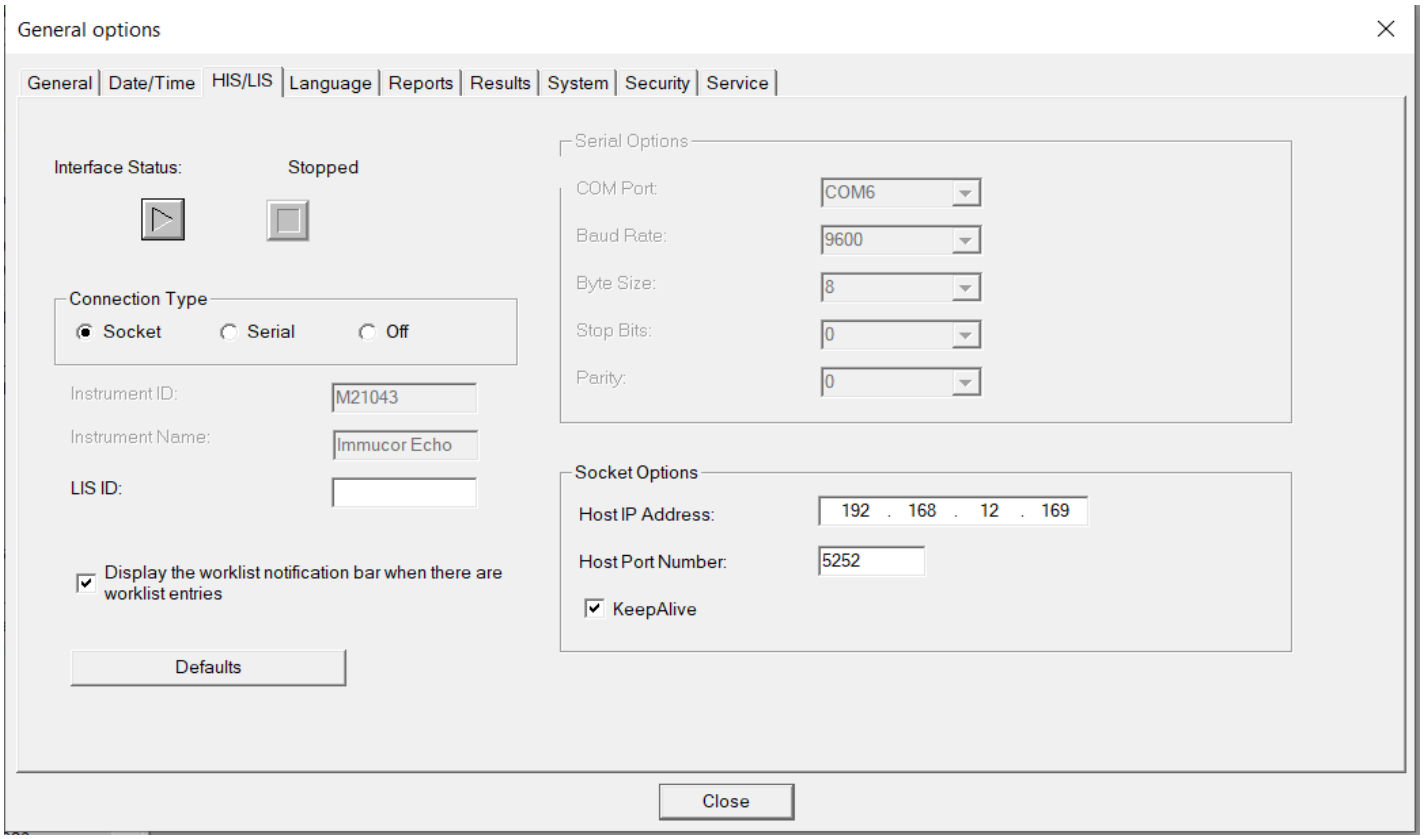


Note: **Echo Lumena Immucor admin Login**

ID: Service (s is capital)

Password: 113512315

Go to tools on the screen, then go to general options and then to HIS/LIS tab and then you can see connection options for the LIS. Set the IP address and port for Socket Connection.



- Place all Echo Lumena analyzers and the Analyzer Interface PC on the same reachable network.
- Use one listening port on the interface PC, or the configured port required by the analyzer workflow.
- Confirm that the Windows firewall allows inbound TCP traffic for the configured port.

6. Analyzer Registration

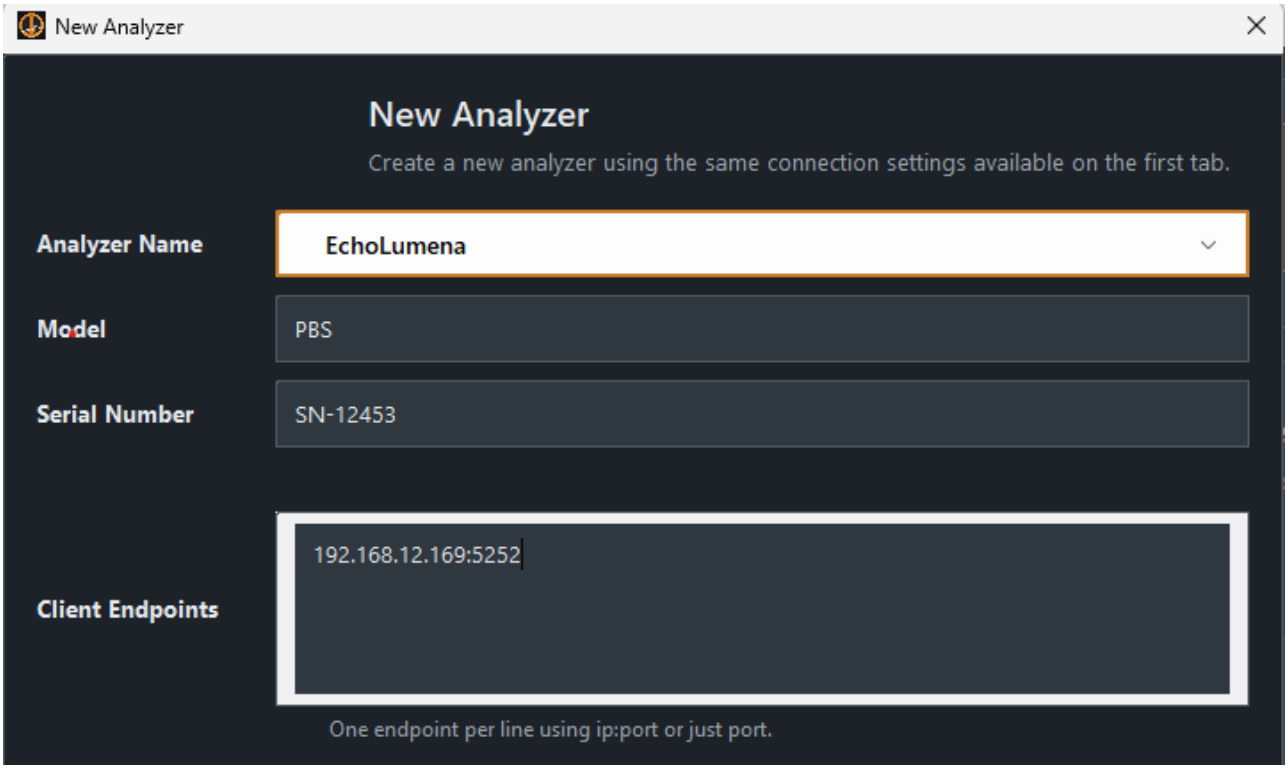


Figure 2. Registration values required for Echo Lumena TCP/IP setup.

- Open the Analyzer Interface application.

- Go to analyzer registration or analyzer setup.

- Select the analyzer name as EchoLumena.

- Add each Echo Lumena analyzer IP address under Client Endpoints.

- Save the analyzer. The interface should start the connection listener immediately after registration.

7. Parameter Mapping

- After the first valid Echo Lumena message is received, open the machine parameter mapping screen.

- Confirm that ABO1D Full Interp appears in the machine parameter list.

- Map ABO1D Full Interp to the correct LIS blood grouping test or measure.

- Save the mapping.

- Send another test result and confirm that the mapped system code is used.

8. Verification

- The Echo Lumena analyzer can connect without restarting the Analyzer Interface.

- Multiple Echo Lumena analyzers can send results at the same time.

- A complete message ends at the line L|1|N.

- The results table shows the patient ID, parameter, and blood-group value.

- The machine parameter list includes **ABO1D Full Interp** for mapping .

9. Troubleshooting

No connection	Check analyzer IP, interface PC IP, port, cable, switch, and Windows firewall.
Parameter not visible	Send a fresh Echo Lumena result and confirm the message contains ABO1D Full Interp.
Wrong patient ID	Confirm the patient record contains the sample ID in the expected patient field.
Multiple analyzers mixed	Confirm each Echo Lumena analyzer is registered with its own endpoint and machine ID.

10. Records

- Analyzer registration details: analyzer name, IP address, port, and machine ID.

- Mapping record for ABO1D Full Interp.

- Verification result showing successful save into the results table.