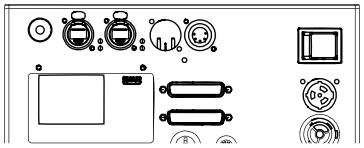
X-LASER
LASER WITHOUT LIMITS

ETHERSTOP EXPLAINED

EtherStop is X-Laser's proprietary control and remote interlock interface. It uses standard Cat5 Network cables, and integrates both network signalling and hardware remote interlock and remote emission indicator functionality in the same cable. Here are the things you'll need and how they can be connected to get your X-Laser system up and running

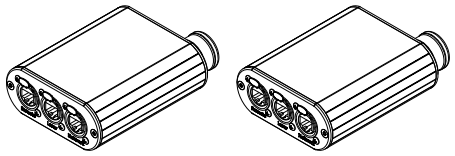
EtherStop-equipped Laser System

Most of X-Laser's Professional Laser Systems have at least one EtherStop port (a Neutrik EtherCON connector with a green coding ring). Some systems have a built-in pass-through and have two EtherStop ports.



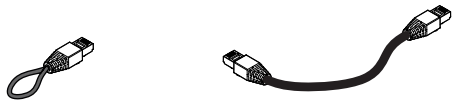
EtherStop Pendant

These remote pendants provide an Emergency Stop switch, emission indicator, and reset and key switches close to the point of operation (up to 100m or 330' from the laser in most cases)



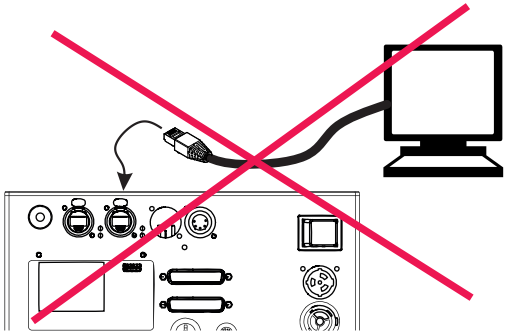
Terminators and Standard Cat5 Cables

EtherStop terminators are used in pendants and sometimes lasers to close the remote interlock loop. These are not like DMX terminators, so only use them as indicated below. EtherStop signals can travel over standard Cat5 cabling and infrastructure, but NOT through standard Ethernet Switches and Routers



Direct Connection: **NOT SUPPORTED!**

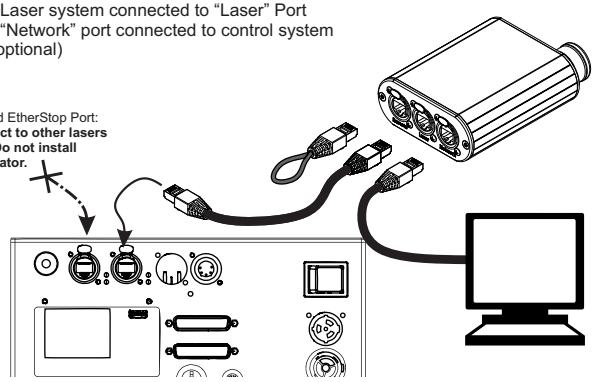
Do not connect standard ethernet devices to lasers equipped with EtherSTOP interface. This will not work!



Single-Pendant Configuration:

- Terminator in "Remote" Port
- Laser system connected to "Laser" Port
- "Network" port connected to control system (optional)

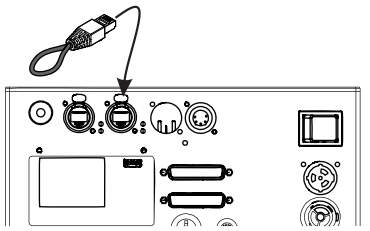
Second EtherStop Port:
Connect to other lasers only. Do not install terminator.



No Pendant: **FOR TESTING ONLY!**

- Terminator plugged directly into laser
- Control via DMX or ILDA input
- Requires manually pressing the reset button on the laser

NOTE: This mode is supported for testing and service only. This configuration does not provide for a remote means of terminating laser output in an emergency, which is required for show safety and for legal compliance in many jurisdictions.

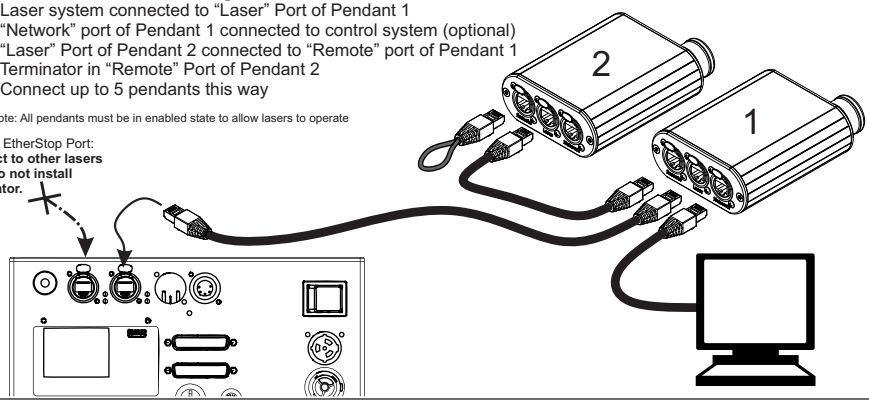


Multi-Pendant Configuration:

- Laser system connected to "Laser" Port of Pendant 1
- "Network" port of Pendant 1 connected to control system (optional)
- "Laser" Port of Pendant 2 connected to "Remote" port of Pendant 1
- Terminator in "Remote" Port of Pendant 2
- Connect up to 5 pendants this way

Note: All pendants must be in enabled state to allow lasers to operate

Second EtherStop Port:
Connect to other lasers only. Do not install terminator.



Multiple Lasers Configuration:

- Connect one or more pendants to first laser
- Daisy chain EtherStop connections from Laser 1 to Laser 2, etc
- Connect up to 12 Lasers this way

NOTE: Only models with EtherStop switch feature (two green ports) support network data on both ports. Models with one green and one blue port support network data only on the green port and support daisy chaining interlock signals only.

Second EtherStop Port:
Connect to other lasers only. Do not install terminator.