

### 3. STARTING GOCATOR

**NOTE:** Gocator must be connected to a host computer in order to launch the user interface and set up the sensor.

Gocator sensors are configured by connecting with a web browser.

The user interface supports FireFox 3.5+, Chrome 4.0+, and Internet Explorer 8.0+. (Use Firefox or Chrome for optimal performance.) The Adobe Flash browser plugin version 10.0+ must be installed. Version 4.0 of the interface is shown here.

#### A. LAUNCHING THE INTERFACE

##### Step 1

Change network setting on host computer

###### In Windows 7

- Open the Control Panel>Network and Sharing Center>Change Adapter Settings.
- Right-click desired network connection, then click Properties.
- On the Networking tab, click Internet Protocol Version 4 (TCP/IPv4), then click Properties.
- Select "Use the following IP address" option.
- Enter IP Address "192.168.1.5" and Subnet Mask "255.255.255.0", then click OK.

###### In Mac OS X 10.6

- Open the Network Pane in System Preferences and select Ethernet.
- Set Configure to "Manually".
- Enter IP Address "192.168.1.5" and Subnet Mask "255.255.255.0", then click Apply.

Gocator is shipped with the following default network configuration

Setting	Default
DCHP	Disabled
IP Address	192.168.1.10
Subnet Mask	255.255.255.0
Gateway	0.0.0.0

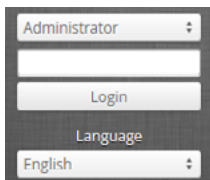
##### Step 2

Open a web browser and enter the sensor address



##### Step 3

Select language of choice



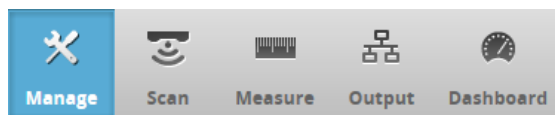
##### Step 4

The Administrator password is initially blank. Press the Login button to connect

#### B. RUNNING GOCATOR

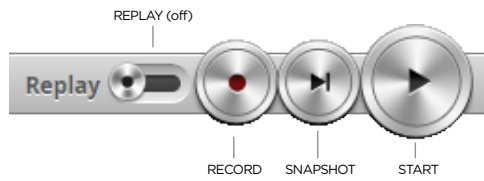
##### Step 1

Select the Manage page.



##### Step 2

Ensure that Replay mode is off (slider set to left) and that the Laser Safety switch is enabled or the Laser Safety input is high. Press the Start button in the toolbar to start the sensor (a laser line should now be visible).



##### Step 3

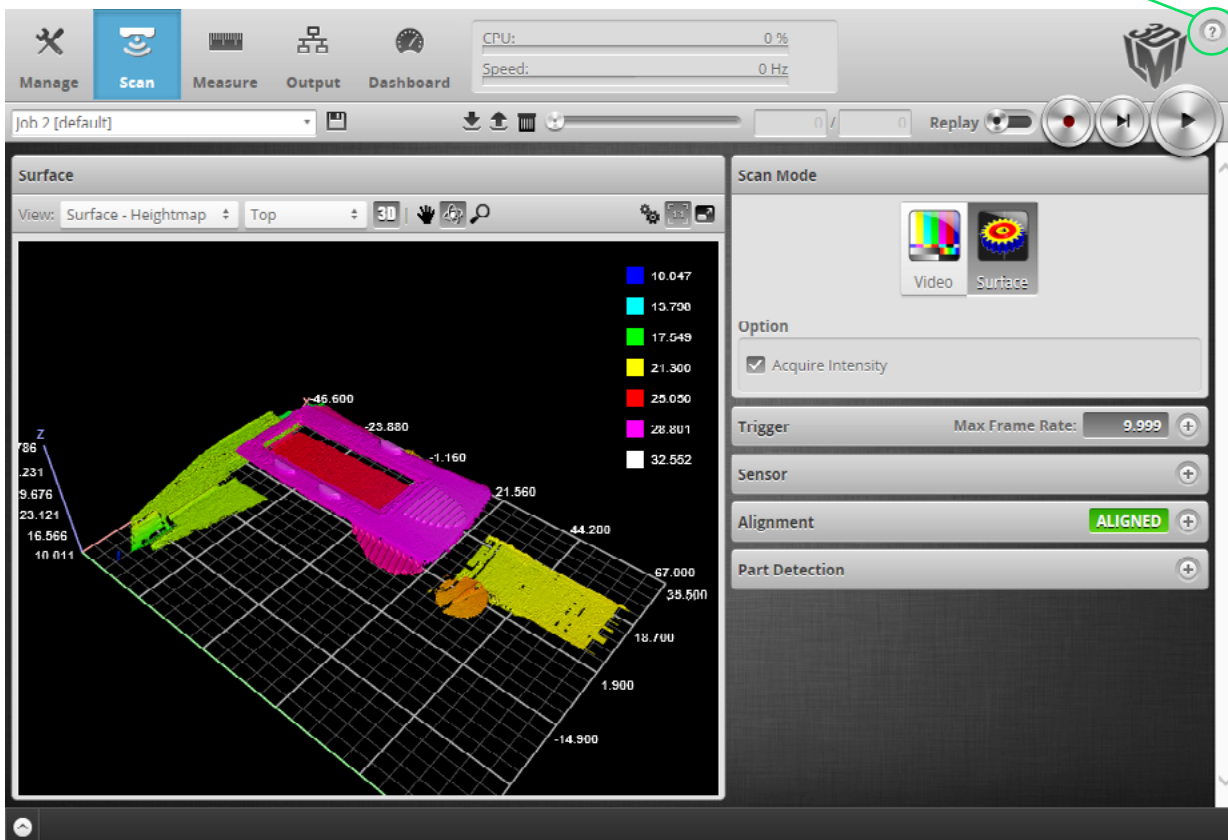
Move target into the projected light pattern and measure!

##### NOTE

Gocator sensors can also interface directly with HexSight. Refer to the HexSight Quick Start Guide for more information.

Once connected to the Gocator, click the Help icon to view the user manual or download the SDK

#### An example of the user interface in use

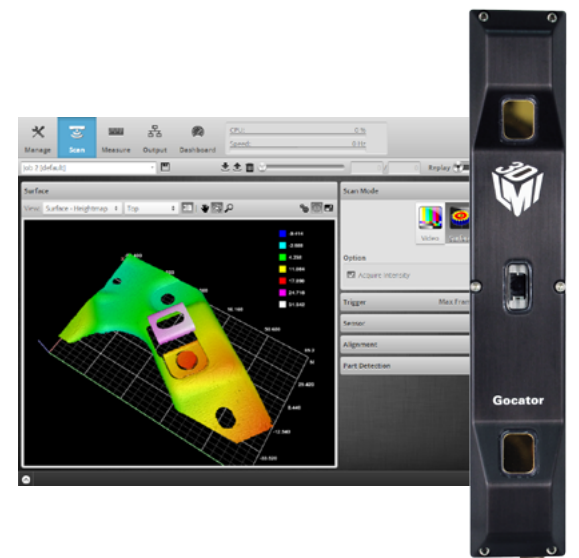


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## Gocator 3100 Quick Start Guide



For the user manual, CAD drawings, firmware release notes, SDK, and more, go to [www.lmi3d.com/support/downloads](http://www.lmi3d.com/support/downloads)

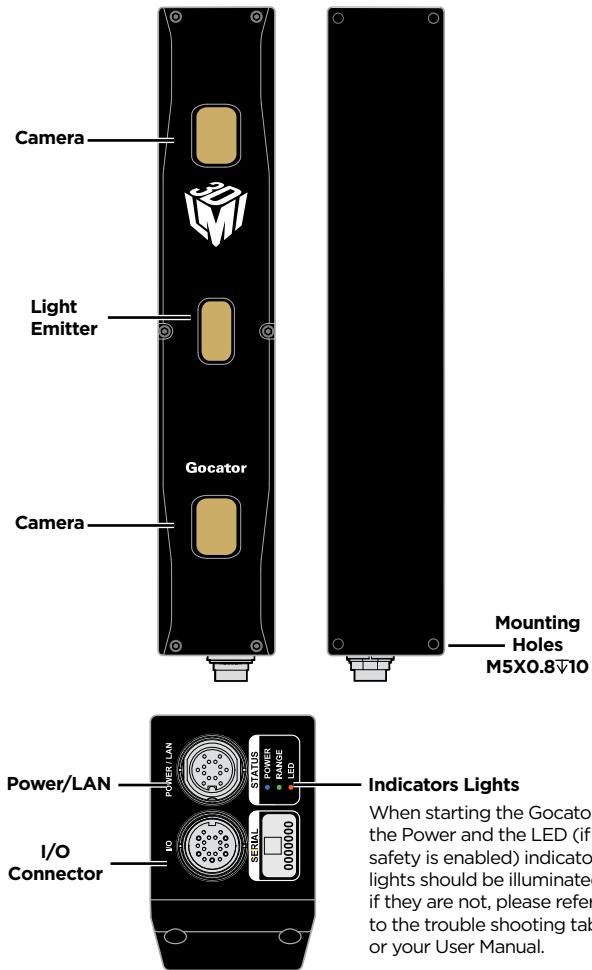
15198-1-4-Manual\_QuickStart\_Gocator-3100A-Series

### TROUBLESHOOTING

PROBLEM	SUGGESTED RESOLUTION
<b>Mechanical / Environmental</b>	
The sensor is warm.	• It is normal for a sensor to be warm when powered on.
<b>Connection</b>	
When connecting with a web browser, the sensor is not found (page does not load).	<ul style="list-style-type: none"> <li>• Verify the sensor power is on. This will be indicated by an illuminated POWER indicator light.</li> <li>• Verify the Power &amp; Ethernet cordset is connected to the Power/LAN connector and the Ethernet end's RJ45 of the cordset is connected to the Ethernet switch.</li> <li>• Verify that the client computer's network settings are properly configured. Refer to the Connecting to a New Sensor section in the Gocator user manual or to your computer's documentation on configuring a network adapter.</li> <li>• Download 14405-x.x.x.x_software_go2_tools.zip from the downloads area of LMI's website at <a href="http://www.lmi3d.com">www.lmi3d.com</a>. Unzip and run the Sensor Discovery Tool [bin&gt;win32&gt;kDiscovery.exe] to verify that the sensor has the correct network settings.</li> </ul>
When attempting to log in, the password is not accepted.	<ul style="list-style-type: none"> <li>• Download 14405-x.x.x.x_software_go2_tools.zip from from the downloads area of LMI's website at <a href="http://www.lmi3d.com">www.lmi3d.com</a>. Unzip and run the Sensor Discovery Tool [bin&gt;win32&gt;kDiscovery.exe] to discover the sensor on the network and restore default settings. <b>NOTE: Using the Sensor Discovery tool will reset your configuration settings to default - these settings can be recovered from the backup files if previously saved.</b></li> </ul>
<b>3D Data Acquisition</b>	
When the Play button is pressed, the sensor does not emit LED light.	<ul style="list-style-type: none"> <li>• Verify that the LED indicator light on the Gocator is illuminated, if not, the safety input signal is off. Refer to the Safety Input section in the Gocator user manual to determine the correct solution for your application.</li> <li>• The exposure setting may be too low. Refer to the Exposure section in the Gocator User Manual for more information on configuring exposure time.</li> <li>• Use the Snapshot button instead of the Start button to capture 3D point cloud data. If the LED light flashes when you use the Snapshot button, but not when you use the Start button, then the problem could be related to triggering.</li> </ul>
The sensor CPU level is near 100%.	<ul style="list-style-type: none"> <li>• Review the active measurements and eliminate any that are unnecessary measurements.</li> <li>• Consider reducing the trigger speed.</li> <li>• Consider reducing the data resolution.</li> </ul>

## GOCATOR OVERVIEW

Each Gocator 3100 model is designed with a unique Clearance Distance (CD), Measurement Range (MR) and Field of View (FOV). Refer to your User Manual for more information about your model.



## GROUNDING GOCATOR

Gocator housings should be grounded to the earth and the grounding shield of the Gocator I/O cordsets. Gocator sensors have been designed to provide adequate grounding through the use of M5 x 0.8 screws. Always check grounding with a multi-meter to ensure electrical continuity between the mounting frame and the Gocator connectors.

The frame or electrical cabinet that the Gocator is mounted to **must** be connected to **earth ground**.

## GROUNDING CORDSET (RECOMMENDED)

To minimize interference with other equipment, the Power & Ethernet or the Power & Ethernet to Master cordset (depending on cordset used in system) can be grounded by terminating the cordset shield before the split. The most effective grounding method is to use a 360-degree clamp. See User Manual for instructions.

## ELECTRICAL SAFETY

### Minimize voltage potential between system ground and sensor ground

Care should be taken to minimize the voltage potential between system ground (ground reference for I/O signals) and sensor ground. Use shielded cables with shield grounded at both ends. Sensor housing should be connected to earth ground.

### Use a suitable power supply

The +24-48V power supply used with Gocator 3100 sensors should be an isolated supply with inrush current protection.

### Use care when handling powered devices

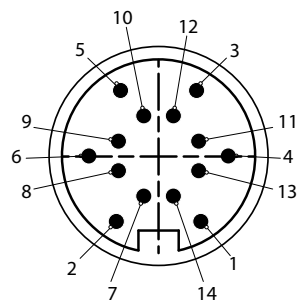
Wires connecting to the sensor should not be handled while the sensor is powered. Doing so may cause electrical shock to the user or damage to the equipment.



Failure to adhere to the guidelines described in this section may result in electrical shock or equipment damage.

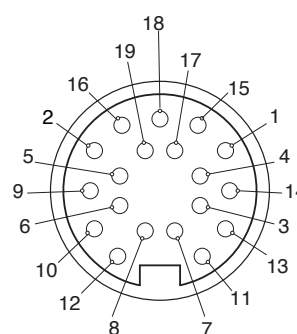
## Connector Pin Details

### Gocator Power/LAN (to standalone and to Master)



View: Looking into the connector **on** the sensor.

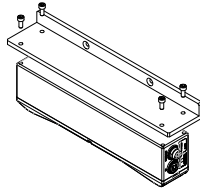
### Gocator I/O



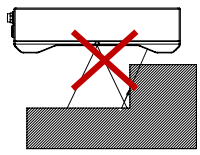
View: Looking into the connector **on** the sensor.

## 1. MOUNTING

**NOTE: Mounting the Gocator is recommended prior to applying power. Ensure that a proper earth ground and heat sink have been properly established prior to applying power.**



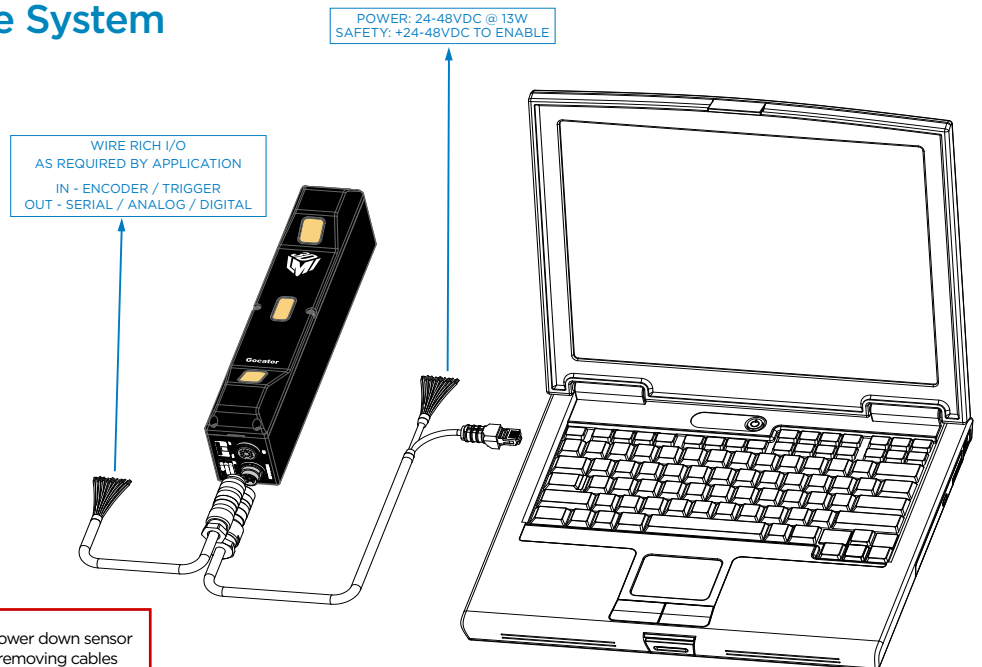
Mount the sensor using four M5 x 0.8 screws of suitable length. The recommended thread engagement into the housing is 8 - 10 mm.



Do not install the sensor near objects that might occlude a camera's view of the light

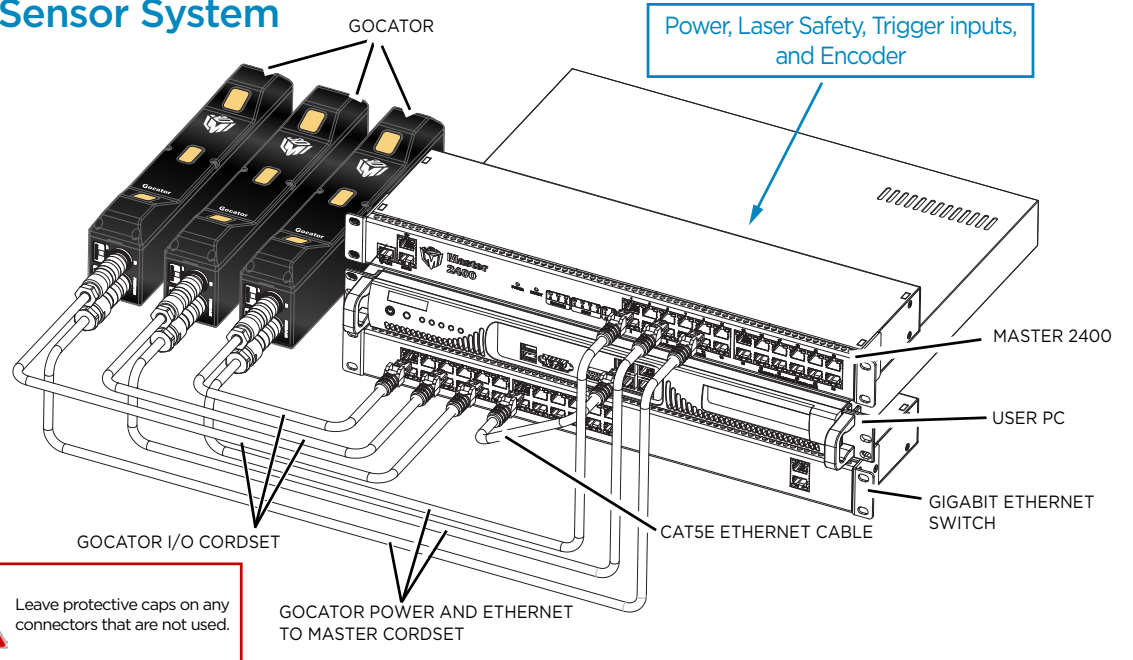
## 2. CONNECTING GOCATOR TO A HOST COMPUTER

### Standalone System



Always power down sensor before removing cables from the sensor

### Multi-Sensor System



Leave protective caps on any connectors that are not used.

Gocator Power/LAN (to standalone and to Master)			Gocator I/O		
Pin	Function	Cable Conductor Color	Pin	Function	Cable Conductor Color
1	GND_24-48V	White/Orange & Black	8	Ethernet MX1-	Orange
1	GND_24-48V	Orange/Black	9	Ethernet MX2+	White/Green
2	DC_24-48V	White/Green & Black	10	Ethernet MX2-	Green
2	DC_24-48V	Green/Black	11	Ethernet MX3-	White/Blue
3	Safety-	White/Blue & Black	12	Ethernet MX3+	Blue
4	Safety+	Blue/Black	13	Ethernet MX4+	White/Brown
5	Sync+	White/Brown & Black	14	Ethernet MX4-	Brown
6	Sync-	Brown/Black			
7	Ethernet MX1+	White/Orange			
1	Trigger_in+	Grey	11	Encoder_Z+	White/Green & Black
2	Trigger_in-	Pink	12	Encoder_Z-	Green / Black
3	Out_1+ (Digital Output 0)	Red	13	Serial_out+	White
4	Out_1- (Digital Output 0)	Blue	14	Serial_out-	Brown
5	Out_2+ (Digital Output 1)	Tan	15	Reserved	Blue / Black
6	Out_2- (Digital Output 1)	Orange	16	Reserved	White / Blue & Black
7	Encoder_A+	White/Brown & Black	17	Analog_out+	Green
8	Encoder_A-	Brown / Black	18	Analog_out-	Yellow & Maroon/White
9	Encoder_B+	Black	19	Reserved	Maroon
10	Encoder_B-	Violet			