Chameleon Discovery

Preinstallation Reference

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1.0 Warning Information

Refer to the Safety Section in the Operator's Manual before installation or operation. Failure to follow the safety section can cause accidental exposure to laser radiation which may result in severe bodily injuries and/or damage to the laser. Use of the system in a manner different from described in this guide or the operator's manual can impair the protection provided by the system.

WARNING!

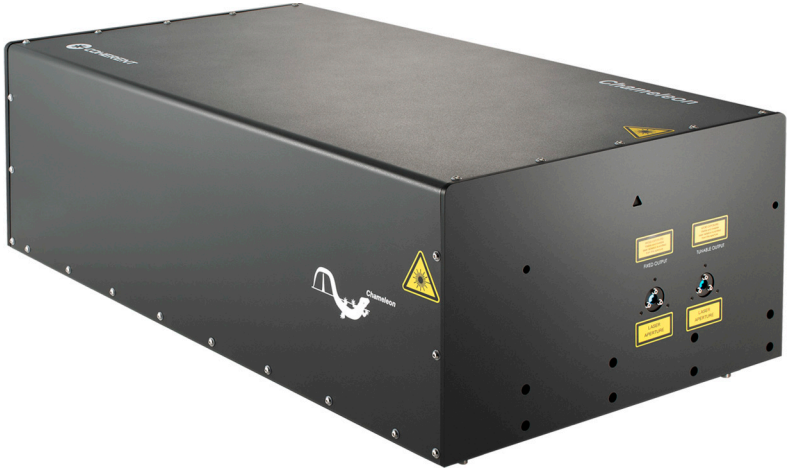
Direct and indirect eye contact with the output beam from the laser will cause serious damage and possible blindness.

Wear appropriate laser safety glasses to protect against the radiation generated from the laser. It is expected that the operator has read the Chameleon Discovery Operator's Manual Safety Section and knows laser safety practices and the possible danger. Make sure all personnel in the area are wearing appropriate laser safety glasses.

2.0 PURPOSE

The purpose of this document is to act as a generic reference for the preinstallation requirements for the Chameleon Discovery system.

This document is not intended to act as a replacement for the Discovery User Manual. Users are expected to refer to the User Manual before using the laser.



3.0 SCOPE

- This document reflects current practice for the Chameleon Discovery system.
- The intended audience is Chameleon Discovery customers prior to delivery and installation of their laser system. For any further questions, have your local Coherent service representative contact factory service for guidance.

4.0 SITE PREPARATION

De-crating and installation of the laser equipment must be carried out by Coherent Field Service. However, the customer should plan ahead for the installation, bearing in mind the following information.

4.1 Shipping Crate Dimensions

The system is delivered in crates of the following dimensions, fully loaded.

Item	Dimensions (L x W x H), mm	Weight, kg	Material
Laser head, Discovery standard	1440 x 864 x 728	173	NW
Laser head, Discovery TPC	1440 x 864 x 728	188	NW
Power supply	580 x 550 x 210	14	CB
Miniature Recirculating Unit (MRU)	580 x 550 x 210	14	CB
Chiller (SMC model HECR008)	650 x 600 x 300	24	CB
CoolFlow IGE (coolant, 5 litres)	200 x 200 x 300	7	CB

4.2 Storage

- After the equipment is delivered, the crates should be protected from extremes of heat/cold/moisture during storage.
- If the storage area is very different in temperature/humidity from the intended lab location, it is advised that the equipment be allowed to thermalise in the lab environment overnight before connecting power.
- Storage temperature range 0 to 40°C (32 to 104°F)

4.3 Access

- The customer should pre-visualise how the laser equipment will be moved to the lab location.
- The individual crates do not have to be moved to the lab location: the equipment can be de-crated at a remote location, e.g. goods receiving area, but covered access must be provided between the de-crating area and the lab location.
- Note that access routes require space to manoeuvre a wheeled trolley of approximate size 1200x800x700 (LxWxH, mm). The laser head is delivered with its' own trolley.
- Detachable lifting handles are provided to assist in moving the laser head. Your Coherent Field Service engineer will take charge of moving the system.
- Note that it is not recommended to carry the laser head up stairways. Access to higher/lower floors within a building should be via a lift (elevator) wherever possible.

4.4 Lab Requirements

- It is assumed that the customer will provide a suitable lab environment (see datasheet), a correctly-sized optical table for installation (refer to system datasheet for component dimensions), and a standard PC.

4.5 Location of Ancillary Equipment (power supply, chiller, and MRU)

- The customer should pre-visualise where the ancillary equipment will be located in the lab. Due to the length of the various umbilicals, the PSU, MRU, and chiller must be sited less than 3 m from the laser head.
- Remember that physical access to the keyswitch on the PSU is required on a regular basis. Access to the chiller and MRU is required on a semi-regular basis (refer to “Regular Maintenance” in the system User Manual).

4.6 Utilities

- The system requires 3 x single-phase power outlets, 90-250 Vac auto-ranging, 50-60 Hz.
- A customer-provided PC is required to run the system control software. Software installers are provided on our website at coherent.com.
- Note that multiple USB connections are required for Discovery TPC. Use of a USB hub should be considered.

4.7 Electrical Consumption

- Maximum approx. 2300 W
- Typical approx. 1000 W

4.8 System Cooling

- The system is provided with a dedicated water-to-air closed-loop chiller and approved coolant. Do NOT plan to use house cooling loops. Do NOT connect the chiller to any other heat loads.
- Special requirements relating to your lab configuration should be discussed with your Coherent representative as early as possible in the Sales process.

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