applied biosystems

GeneTitan™ Multi-Channel Instrument

SITE PREPARATION GUIDE

Catalog Numbers 00-0372 (110V), 00-0373 (220V)

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Revision D

ThermoFisher SCIENTIFIC

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TRADEMARKS

Contents

1 GeneTitan™ Instrument Multi-Channel Instrument

Thermo Fisher Scientific developed this document to help you through the process of preparing your laboratory to ensure a prompt and successful installation of the GeneTitan™ Multi-Channel (MC) Instrument.

In preparing your site for the installation of the GeneTitan MC Instrument, please note the following points:

- Suitable preparation of your laboratory is essential to a successful installation.
- You may wish to work with your facilities personnel to ensure that your laboratory meets the minimum electrical and other environmental requirements as outlined in this document.

Once your site location meets all of the requirements outlined, your laboratory is suitable for installation of your new GeneTitan MC Instrument. At that time:

1. Complete the site verification checklist in "Pre-installation requirements" and provide a copy to your Field Applications Scientist or Technical Support representative.
2. Upon receipt of this written confirmation, Thermo Fisher will contact you by telephone to schedule the installation of your GeneTitan MC Instrument.

IMPORTANT! Please do not unpack the shipping container prior to the arrival of a Thermo Fisher Scientific representative. The following information in this document is provided for reference purposes only.

The GeneTitan™ MC Instrument and components

The GeneTitan MC Instrument comprises several components for processing GeneTitan high throughput array plates. Thermo Fisher Scientific provides the following system components (Table 1).

Table 1 GeneTitan™ MC Instrument components

Component
GeneTitan Multichannel Instrument
Workstation
External barcode reader
Applied Biosystems GeneChip Command Console Software (AGCC)
APC Smart UPS 1500
Lambda LS Xenon Arc Lamp System
Lambda SC *Smart*Shutter® Control System
Spare xenon lamp
Glass bottles for Wash A, Wash B, DI water and waste
GeneTitan Bottle Rack

Preparation checklist

Site preparation is essential for a successful installation of your instruments. It is important, therefore, to ensure that all site requirements are met prior to the installation date. Please use this check list for preparing your laboratory. Detailed information is provided in "Pre-installation requirements" on page 18.

Before you install the instrument system, the system requires:

- Appropriate power connections for the GeneTitan MC Instrument are available.
- An oil-free, clean dry, regulated air supply of 70 psi (3620 mmHg) to operate the system as detailed in "Pneumatic requirements" on page 11.
- A compatible network system for transferring data to remote data storage.
- Adequate space for the dimensions of the GeneTitan MC Instrument and bench top support to sustain the total weight are allocated with available service access.
- An area for the crates near the laboratory. Once the GeneTitan MC Instrument is on-site, ensure that shipping skid and associated boxes are close to the laboratory installation location. This equipment must be unpacked only by a Thermo Fisher Scientific representative.
- Two people with proper access to the loading dock and pallet jacks to move the High Throughput system and associated boxes to a location close to the lab for unpacking by a Thermo Fisher Scientific representative.
- Anti-Static Gun: You must use a static gun to de-ionize the plastic consumable stain tray covers prior to processing HT Array plates on the instrument. You can order the anti-static gun from Thermo Fisher Scientific using Cat. No. 74-0014.

Safety information and warnings

Hazards

Table 2 summarizes possible hazards.

Table 2 GeneTitan™ MC Instrument hazards

Hazard	Present?	Description
Chemical	No	
Control	No	Control software
Electrical	**Yes**	100-240V power
Ergonomic	**Yes**	User interface
Gas	No	
Mechanical	**Yes**	Instrument weight (heavy instrument)
Laser	**Yes**	Hazard present if you remove the system enclosure. Also present with external barcode reader.
Noise	No	
Pneumatic	**Clean Dry Air** (CDA) for operating the Fluidics Station unit in the system	
Radiation	**Yes**	The infrared radiation (and ultraviolet radiation) generated by this lamp can cause significant skin burns and eye damage.
Temperature	**Yes**	Integrated hybridization oven and fluidics station unit
Ultrasonic	No	
Vibration	No	
Heat	**Yes**	Maximum heat generated is 300W
E-Fields	No	
H-Fields	No	
Explosion	**Yes**	1. High internal pressure exists in any xenon arc lamp. 2. Buffer and DI Water bottles are pressurized to 5 psi.
Ozone	No	

⚠ **WARNING!** To Avoid Physical Injury while Powered Up and Emitting Light DO NOT LOOK DIRECTLY INTO THE LIGHT GUIDE! The output of the light or the light guide should be directed into the microscope using the appropriate adapters, directed away from anyone's eyes, and not directed toward any reflective surface.

⚠ **WARNING!** NEVER ALLOW THE FREE FLOW OF AIR TO BE RESTRICTED.

Components and connections

IMPORTANT! Please contact Thermo Fisher Scientific technical support when moving the workstation or adding/removing USB devices. The GeneTitan instrument may stop working if you do not take adequate precautions or if you do not properly follow instructions.

⚠ **CAUTION!** Removing or adding connections without the presence of an Thermo Fisher Scientific Field Service Engineer voids the instrument warranty. The UPS provided with the GeneTitan should not supply power to any devices other than those associated with the GeneTitan. Plugging a device such as a GeneChip Hybridization 640/645 oven into the GeneTitan UPS will affect the power recovery modes for the GeneTitan Instrument.

Front components

The GeneTitan MC Instrument front components consist of the following items (Figure 1).

1. Input/Output drawer #1
2. Input/Output drawer #2
3. Input/Output drawer #3
4. Input/Output drawer #4
5. Input/Output drawer #5
6. Input/Output drawer #6
7. Confirmation button for opening and closing drawers
8. Waste bottle for drained buffers and residual reagents
9. Wash A buffer bottle
10. Wash B buffer bottle
11. Rinse bottle containing de-ionized (DI) water
12. Fluidics Station
13. Trash bin door for waste chute for used materials (e.g., plate covers)
14. Imaging Device

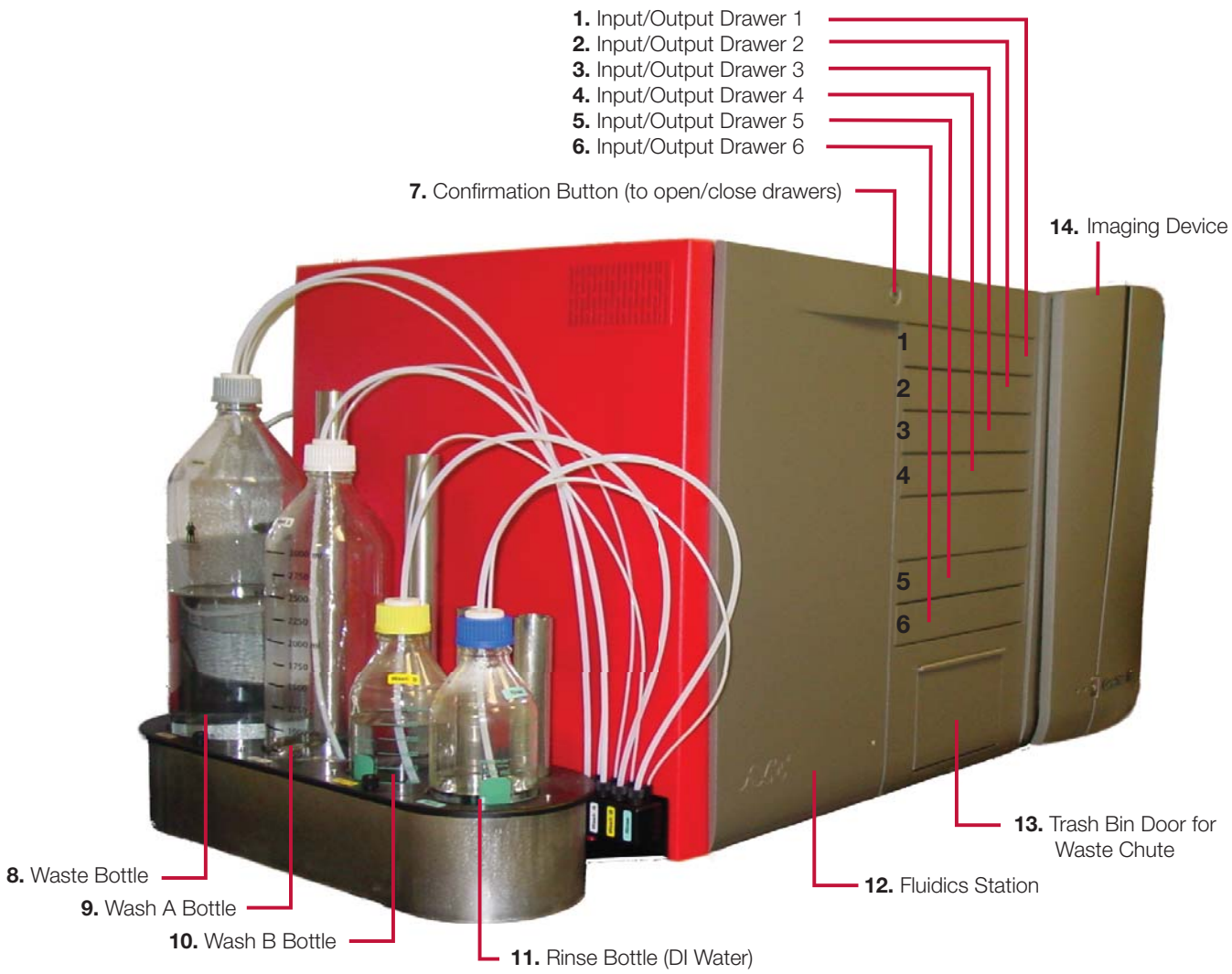


Figure 1 The GeneTitan™ MC Instrument components

The xenon arc lamp

The LS xenon arc lamp components consist of the following items (Figure 2).

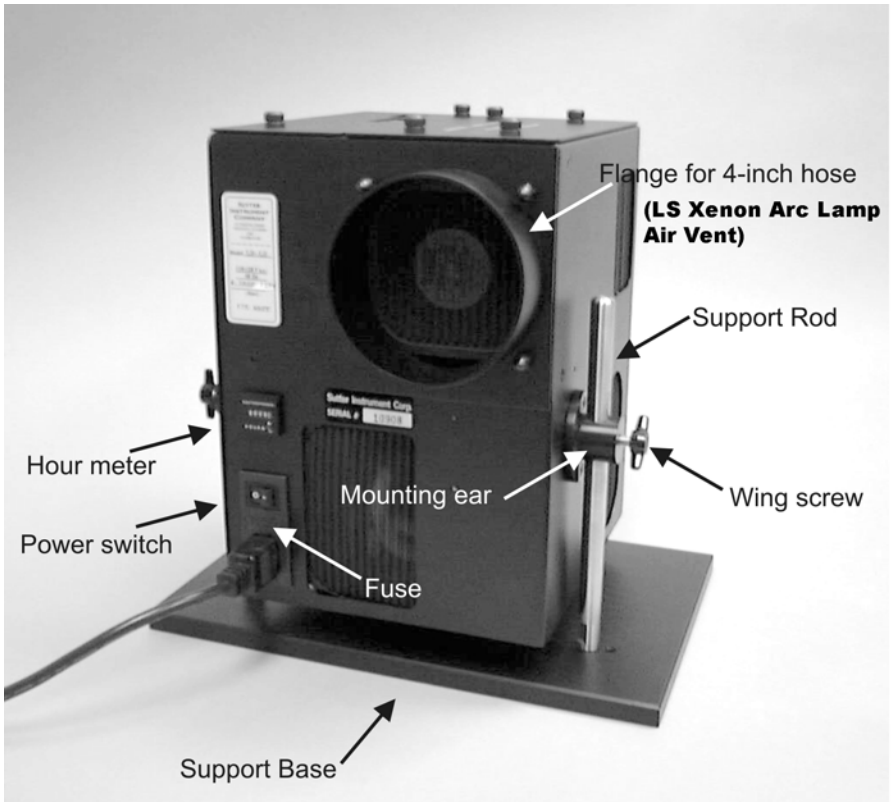


Figure 2 The xenon arc lamp components

IMPORTANT! Note the direction of the LS Xenon Arc Lamp air vent. It should be positioned away from the user. THE ARC LAMP MUST BE PLACED ON THE BENCH NEXT TO THE GENETITAN INSTRUMENT.

Site requirements

The proposed laboratory site must be suitable for the GeneTitan MC Instrument.

IMPORTANT! A qualified Thermo Fisher Scientific Representative must uncrate and install the GeneTitan MC Instrument units. Facilities personnel should be assigned to assist the Thermo Fisher representative.

Transportation details and requirements

1. Loading dock or a delivery truck with a lift gate
2. The GeneTitan Instrument is packed on two pallets:
   - One pallet contains the GeneTitan Hybridization Oven and Fluidics + bottle box + barcode reader
   - One pallet contains the GeneTitan Imaging Device + workstation + monitor
3. Transportation to final location: elevator with 1200 lb (545 kg), capacity.
4. Cushioned rolling cart: approx 344.2 lb (156.1 Kg) capacity. This is the weight of the two uncrated instruments not including the monitor, workstation, bottle box and barcode reader.
5. Doorway with suitable dimensions. If the instruments will be transported in the crate, Thermo Fisher Scientific recommends that all doorways and passages along that path should be at least 5 feet (152.4 cm) wide to clear a standard ISO pallet (48.00” x 40.00” or 1219 mm x 1016 mm). Please verify passageway dimensions with a measuring device.

   IMPORTANT! In the absence of doorways with the specified width, the Thermo Fisher Scientific Instrument Field Service Engineer will need access to the shipping/receiving area to unpack the instrument from the crate and move the instrument to the final location on a rolling cart. The engineer will need at least two people (four people would be optimal) to lift the instrument from the crate and place it onto the cart. THERMO FISHER SCIENTIFIC STRONGLY RECOMMENDS USING A LIFT TO UNPACK AND MOVE THE INSTRUMENT.

Laboratory workbench requirements

The GeneTitan instrument requires a laboratory workbench with a hard surface. Do not place the instrument on a rolling cart or a workbench with a soft surface such as wood. The workbench surface must be level (front and back) to within ±0.5°. This means that the maximum allowable workbench tilt from front to back of the instrument must not exceed ± 0.5 degrees. The workbench must be capable of bearing the weight of the instrument (500 lb) including the instrument accessories that include four bottles with reagent buffer, a workstation monitor and keyboard. The workbench surface must be constructed of material that will not bend or deform under the weight of the instrument. The dimensions of the workbench must be at a minimum 92" (Width) and 45" (Depth) to hold the instrument, accessories, monitor and keyboard.

GeneTitan instrument customers in the USA can order an appropriate table from the following companies. You can customize the table can to have a space for the monitor, keyboard and power sockets.

Bench depot

Table catalog number HF3696

Recommended table dimensions - 96" X 36" X 36"

Tel: 888-700-9888

http://www.benchdepot.com

IEC designs

GeneTitan table catalog number GT-9245.

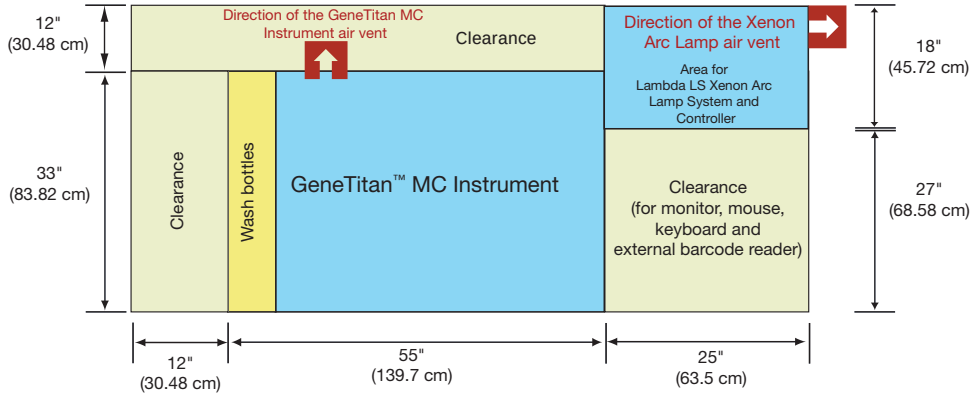
Tel: 866.539.4716

Space requirements

At the installation site, verify that there is sufficient space and air circulation to accommodate the GeneTitan MC Instrument. Refer to the diagram below for space dimensions.

⚠ **WARNING!** NEVER ALLOW THE FREE FLOW OF AIR TO BE RESTRICTED.

1. The instrument footprint is 33” (83.82 cm) depth x 55” (139.7 cm) width x 26” (66 cm) height.
2. Additional clearance 12" (30.48 cm) to the left and 12" (30.48 cm) to the back. There must be 25" (63.5 cm) space to the right of the instrument for the 20" workstation monitor, keyboard, mouse, external barcode reader and LS Xenon Arc Lamp.
3. Computer workstation: space on floor for CPU tower



Electrical outlets

1. Wall outlet: one separate, dedicated grounded outlet within 4 ft. (1.22 m) of the instrument (for the UPS connection)
2. UPS outlet requirements: 110 VAC, 50/60 Hz, 20 Amps (NA/Japan) and 230V (international)

Network requirements and software

The workstation maybe connected to a compatible network to transfer data and to share data remotely.

Pneumatic requirements

Clean dry air (CDA)

The GeneTitan Instrument requires an oil-free, clean dry, regulated air supply to 70 psi to operate the Fluidics Station unit. The CDA source can be made available through facility CDA or through a portable oil-free compressor.

Facility CDA

If the GeneTitan MC instrument will be connected to a facility CDA, then the airflow rate should be 34 L/min (1.2 cfm) at 70psi.

Portable CDA

If your laboratory does not have access to facility clean dry air (CDA), you can still operate the GeneTitan MC instrument by using a portable oil-less compressor for the clean dry air supply.

The GeneTitan MC instrument will operate only with the Werther PC224E portable compressor with the Sil Box 24 (Figure 3), which has been configured for use with the GeneTitan MC instrument. The Sil Box 24E reduces the noise levels by 20dB/A.

The oil free compressor from Werther Inc. has a part number specific to the voltage for each region. Please see Table 3 for the specific catalog numbers. Each PC224E oil free compressor and Sil Box 24 includes the following:

- 13 Gal. air tank
- 6.0 CFM air output
- Supply of clean dry instrument grade air
- Silencing enclosure with cooling fans
- Noise level 55 dB/A
- Max pressure 120 PSI

The appropriate oil free compressor must be ordered with the Air Drying system (P/N 400) as a separate line item. The air drying system is required for the “dry” air. The air drying system includes the following:

- Desiccant dryer with -4F pressure dew point
- Additional 1 micron pre filter and 0.1 micron post filter, both with automatic drain

Table 3 Oil-free compressor and input power voltage requirements

No	Item#	Input power
1	M57390US	PCE224E and SilBox24 for **115V/60 Hz** power supply
	400	Air drying system
2	M53320US	PCE224E and SilBox24 for **220V/60 Hz** power supply
	400	Air drying system
3	M57310	PCE224E and SilBox24 for **220V/50 Hz** power supply
	400	Air drying system

- The Outlet pressure for the compressor should be set at **70 PSI**. The maximum tank pressure should be **120 PSI** and the pressure for recharging the tank should be set to **92 PSI**.

The portable compressor is available from:

- Werther International Inc, 8614 Veterans Memorial Dr, Houston, TX 77088 (www.werther.com)

Werther International has the capability to drop-ship from their distribution centers in US and Europe. For the rest of the world, Werther will ship from the U.S.A.

Figure 3 The PC224E portable oil-less compressor with the Silencing Cabinet Sil-Box 24 from Werther International Inc,

GeneTitan Installation Kit:

The GeneTitan MC Instrument System comes with an installation kit that contains parts for connecting the CDA source to the GeneTitan MC Instrument. The installation kit includes the following parts:

1. Air supply tube, 0.25 inch (6 mm) OD, polyethylene, max 150 psi (e.g., www.grainger.com 4HM13). The length of the tube should be sufficient to be able to reach the GeneTitan instrument from the CDA outlet.
2. Regulator (e.g., www.grainger.com "SPEEDAIRE®" 4ZM14) with filter 0 - 120 psi (0 - 6206 mmHg)

IMPORTANT! To prevent any disruption to the array processing and scanning, you must turn off all automatic software updates (such as Windows® software updates, antivirus updates, etc.). Turn off the Windows automatic adjustment to daylight savings time.

Note: The installation kit includes a tube that is 50 ft. in length. The CDA outlet at your site must be at a distance that allows the tube to reach the GeneTitan Instrument. If the CDA at your site requires longer tubing, please notify the Thermo Fisher Scientific FAS or FSE.

3. Pressure dial (e.g., www.grainger.com 5WZ07), size 1.5 inch (38.1 mm), range 0 - 160 psi (0 - 8274.4 mmHg, connection size 1/8 (.125) inch (3.175 mm) NPT, smallest graduation 5 psi, accuracy ±3-2-3%
4. Male connector, 0.25 inch (6 mm) tube OD, max pressure 150 psi (e.g., www.grainger.com 1WTG3)
5. Tee, union, 0.25 inch (6 mm) tube OD, max pressure 150 psi (e.g., www.grainger.com, 4HN16)
6. Straight adapter 3/8 (.375) inch (9.525 mm) tube OD, max pressure 150 psi (e.g., www.grainger.com, 1WRT2)

IMPORTANT! The air flow rate is 34 L/min (1.2CFM) at 70 psi.

The regulator shown in Figure 4 shows the CDA regulator and source that Thermo Fisher Scientific uses. This need not be the same as yours, and is for illustration purposes only.

1. The pressure adjustment knob
2. Clean dry air to GeneTitan MC Instrument
3. Pressure gauge
4. Clean air source

Figure 4 The clean dry air unit

Exhaust/venting requirements

The assays used on the GeneTitan MC instrument use stain reagents that may require your facility to determine if any industrial hygiene monitoring is necessary to meet your local regulatory requirements and if engineering controls, such as local exhaust/fume hoods are required. Please refer to the appropriate safety data sheets (SDS) for information on the stains used in your Thermo Fisher Scientific assay.

IMPORTANT! It is important to ensure that the fans inside the instrument are always working properly and air is venting outside the instrument. You should be able to feel the airflow coming out of the instrument. That air flow should be unrestricted and should direct air away from any benchtop scientist working in the laboratory. Refer to the *GeneTitan Multi-Channel Instrument User Guide* (Pub. No. 08-0308) for the preventative maintenance activity that is required to ensure airflow from the instrument is not blocked.

Recycling plastic consumables

The GeneTitan plastic consumables used for array processing are made from LEXAN® HP1-1H112 resin (polycarbonate). Please follow appropriate recycling practices for the array plate consumables to meet your local regulatory requirements.

GeneTitan™ MC Instrument specifications

Table 4, Table 5, Table 6, Table 7 and Table 8 list the important instrument specifications.

Table 4 The specifications of the GeneTitan™ Multi-Channel Instrument System

Item	Parameter	Value
Weight	**Free-standing (uncrated)** GeneTitan Hyb and Fluidics Station GeneTitan Imaging Device + Xenon Arc Lamp **Total Weight**	 approx 182 lb (82.6 kg) approx 127 lb (57.6 kg) + 16 lb (7.26 kg) = 143 lb (64.9 kg) approx 325 lb (147.4 kg)
Dimensions	Width Depth Height	55” (139.7 cm) 33” (83.82 cm) 26” (66 cm)
Power (Imaging Device)	Power@Voltage/Current Line frequency	100 V/6.2 A 240 V/2.6 A 50 - 60 Hz
Power (Fluidics Station)	Power@Voltage/Current Line frequency	100 V/3.7 A 240 V/2.2 A 50 - 60 Hz
Working environment (**indoor use only**)	Temperature	41°F-75°F (5°C to 23.9°C)
	Humidity	Maximum relative humidity 80% for temperatures up to 75.2°F (24°C) Minimum humidity 30 ±7% relative humidity
	Clearance	6” (15.24 cm) in rear 12” (30.48 cm) on left side 25” (63.5 cm) on right side
	Pollution degree	2 environment
	Installation category	II
	Altitude	<2000m
Electrical supply	Provide voltage, frequency or power rating per unit label. Circuit breaker.	
Main supply voltage fluctuations	Mains supply voltage fluctuations up ±10% of the nominal supply voltage (Transient overvoltages typically present on the mains supply)	

Table 5 Lambda SC SmartShutter™ and Control System specifications

Item	Parameter	Value
Dimensions (H x W x D):		
Controller		5.38” x 5.86” x 8.25” (13.67 cm x 14.88 cm x 20.96 cm)
25 mm (1”) SmartShutter:	Height (from motor top to shutter bottom)	3.88” H (9.86 cm H)
	Width and depth:	
	Motor end (top):	1.06” W x 1.88” D (2.69 cm W x 4.78 cm)
	Shutter end (bottom):	2.88” W x 0.66” D (7.32 cm W x 1.68 cm D)
Weight: • Controller • 25 mm SmartShutter		 • 2.55 lb (2 lb., 9 oz.) 1.16 kg. • 0.6 lb (9.6 oz) 0.27 kg
Electrical	Input voltage (Mains)	115 V, 60 Hz 230 V, 50 Hz
	Mains fuse (rear of cabinet)	5 x 20 mm glass tube, T1.0A, 250V, IEC 60127-2, Sheet III (such as a Bussmann GDC-1A or Littelfuse 218 001)
	Power cord	10A, 250V, with safety ground plug

Table 6 Lambda SC Controller cables

Cable	Connector type	Cable type	Cable max. length
SmartShutter	DB-9 male to DB-9 female	Minimum of 26 awg stranded wire with 500 Volt load capacity. Two ferrites are attached, one at each end.	10 feet (approx. 3 meters)
Serial	DB-9 female to DB-9 male	Connected to metal faceplates of connectors on both ends. One ferrite is attached at one end.	
USB	A to B	Dielectric separation of circuits. Foil shielding.	

Table 7 Lambda LS Xenon Arc Lamp system specifications

Parameter	Value
Output Range	320 to 700 nm (standard, ozone free bulb)
Radiant Output	50 watts (broadband, full beam) for r 300W bulb
Lamp Type	300W Xenon, pre-aligned to produce collimated output
Lamp Life	lamp warranted for 500 hours; expected lifetime: 500 hours
Dimensions (H x W x D)	10.5” x 9.5” x 10” 26.7 cm x 24.1 cm x 25.4 cm
Weight	10.5 lb. 4.8 kg
Electrical	
Mains voltage	110V through 240V, 50 through 60 Hz
Maximum power consumption	300 W
Power cord	10A, 250V, with safety ground plug
Mains fuse (rear of cabinet)	5 Amp, 250V, 5 x 20mm, Time Delay fuse (EC 60127-2) (Examples: Bussmann GDC-5A or S506-5A (RoHS), or Littelfuse 218.005 or 218.005.P (RoHS))

Table 8 Lambda SC Controller cables

Cable	Connector type	Cable type	Cable max. length
SmartShutter	DB-9 male to DB-9 female	Minimum of 26 awg stranded wire with 500 Volt. Two ferrites are attached, one at each end.	10 feet (approx. 3 meters)
Serial	DB-9 female to DB-9 male	Connected to metal faceplates of connectors on both ends. One ferrite is attached at one end.	
USB	A to B	Dielectric separation of shielding	

Pre-installation requirements

To ensure that the GeneTitan MC Instrument and components are installed successfully, please fill out the information requested for shipping and receiving, space requirements and the site preparation checklist and provide this information (on page 18 through page 21) to your Field Applications Scientist or Technical Support representative.

GeneTitan™ MC Instrument confirmation of site preparation

Order Reference Number _____

Contact _____(printed)

_____(signed)

Institution/Company Name _____

Shipping Address

_____

_____

_____

State _____ZIP code _____ Country_____

Phone _____Fax _____

Contact E-mail_____

Facilities

Receiving facilities

Check with your Receiving Department about the shipping requirements we need to consider when shipping your unit. Please provide Thermo Fisher Scientific with detailed shipping and receiving requirements deemed necessary by your Receiving Department.

Do you have a loading dock? ☐

Do you require a delivery truck with a lift gate? ☐

I, _____, have verified the statement checked above.

Transporting the GeneTitan™ MC Instrument

Determine the path that the GeneTitan MC Instrument will follow from the loading dock to your installation site. If the instruments will be transported in the crate, Thermo Fisher recommends that all doorways and passages along that path should be at least 5 feet (152.4 cm) wide to clear a standard ISO pallet (48.00" x 40.00" or 1219 mm x 1016 mm). Please verify passageway dimensions with a measuring device.

Should it be necessary to transport the crated system on an elevator, make sure that the elevator can carry at least 1200 lb (545 kg), the combined weight of the crated instruments, approximately 542 pounds (245.8 Kg), and the transport mechanism and personnel. Consult with on-site personnel.

I, _____, have verified our facility meets the transport requirements above.

Uncrating the GeneTitan™ MC Instrument

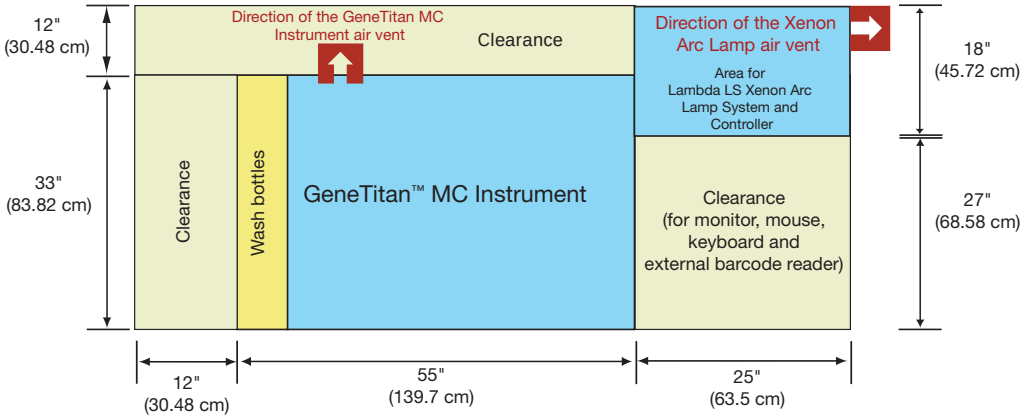
Should it not be possible to move the crated system through the facility, the system may be transferred to a cushioned rolling cart. This cart should be able to accommodate the full weight of the instrument (approx 344.2 lb, 156.1 Kg, when uncrated), and it should be sufficiently stable to prevent tipping.

Due to the nature of the instrument, a manual, winch-operated lift truck is recommended for removing the instrument from the crate and transporting it to the transfer cart or to its place of installation. The lift truck must be rated in excess of 400 pounds (181.4 Kg). A lift truck is not recommended for transport of the instrument for significant distances. The lack of cushioning poses a risk to the instrument, and the high center of gravity of the lift truck and instrument poses a risk of tipping.

Space requirements

At the installation site, verify that there is sufficient space and air circulation to accommodate the GeneTitan MC Instrument. The instrument footprint is 55" (139.7 cm) width x 33" (83.82) depth x 26" (66 cm) height.

In addition to the footprint, when looking at the instrument from the front, allow for 12" (30.48 cm) in the back for proper airflow, 12" (30.48 cm) on the left for reagent bottles, and 25" (63.5 cm) on the right for the workstation monitor, keyboard, mouse, barcode reader and the LS Xenon arc lamp. During installation, access to the front, back, and right-hand side of the instrument will be required.



IMPORTANT! Note the direction of the LS Xenon Arc Lamp air vent away from the user.

The table or bench supporting the instrument must be rated for 500 lb (272.16 kg) and support must be sufficient to prevent tipping.

In addition to the space requirements for the instrument, there must be room for the workstation and a barcode reader. The workstation includes a CPU tower and one LCD monitor as well as a keyboard and mouse. Bench space should be at least 93“(236.22 cm) wide and 45 “(114.3 cm) deep. The CPU tower will need to be within 4’ (122 cm) of the right side of the instrument.

I confirm that the location of the GeneTitan MC Instrument allows the free flow of air around the instrument. THE FREE FLOW OF AIR IS NOT RESTRICTED.

I, _____, have verified our facility meets the space requirements above.

Pneumatic requirements

Clean dry air

The system requires an oil-free, clean dry, regulated air supply to 70 psi with an air flow rate of 34 L/min (1.2CFM) to operate the GeneTitan MC Instrument. I have confirmed this facility meets the clean dry air requirements as outlined in the section "Clean dry air (CDA)" on page 11.

I, _____, have verified our facility meets the pneumatic requirements above. The source of the CDA is (i) Facility Air, (ii) Werther PC224E portable CDA compressor (Please circle one).

Laboratory workbench requirements

I have confirmed that this facility has a laboratory workbench with a hard surface. I can ensure that we will not place the instrument on a rolling cart or a workbench with a soft surface such as wood. The workbench surface is level (front and back) to within ±0.5°. I understand that is means that the maximum allowable workbench tilt from front to back of the instrument must not exceed ± 0.5 degrees. The workbench is capable of bearing the weight of the instrument (500 lb) including the instrument accessories that include four bottles with reagent buffer, a workstation monitor and keyboard. The workbench surface is constructed of material that will not bend or deform under the weight of the instrument. The dimensions of the workbench is at a minimum 92" (Width) and 45" (Depth) to hold the instrument, accessories, monitor and keyboard.

I, _____, have verified our facility meets the laboratory workbench requirements above.

Electrical requirements

Verify that there is at least one separate, dedicated, properly grounded electrical outlet within about 4 feet (1.22 m) of the UPS location. The outlet should be 110 VAC, 50/60 Hz, 20 Amps (NA/Japan) and 230V (international).

I, _____, have verified our facility meets the electrical requirements above.

Networking requirements

The GeneTitan MC Instrument will be installed and tested in non-networked mode. If you later want to connect the workstation to your network, you may need to arrange for your network services department to prepare for attachment in other ways. If your network policies require that the name of the workstation be changed, you will need to inform Thermo Fisher Scientific so that the workstation software can be reconfigured accordingly. An anti-virus software package is pre-installed on the instrument workstation. This software package is validated for use with the GeneTitan instrument. Use of any other anti-virus software package may interfere with normal instrument operation. All automatic updates to Microsoft® Windows® XP need to be disable for proper operation of the instrument. Failure to follow this requirement may result in failures during array processing.

The workstation will ultimately be attached to a network. ☐

The workstation will not be attached to a network. ☐

The workstation name will need to be changed during attachment. ☐

The workstation name will not need to be changed during attachment. ☐

The Anti-virus software installed on the workstation will be removed and replaced with the following Anti-virus software package. ☐ Name of package:

_____

The workstation will not be configured to receive automatic updates to any installed software.

I, _____, have verified the statement(s) checked above.

Contact information

Please provide the following information.

Location

Please provide your

- Site Name:
- City/State:
- Date:

Information needed prior to configuration

Contacts

Name of contacts who will be involved with the GeneTitan MC System:

1. IT personnel:
   a. Name
   b. Phone number:
   c. Email address:
2. Scientist or Primary End user personnel:
   a. Name:
   b. Phone number:
   c. Email Address:

Other comments/ questions

I verify that the above information is correct and will be configured prior to Thermo Fisher's arrival for their installation of software on the server and the necessary clients.

The necessary IT, facilities personnel and Scientists (end-users) will be available to work with Thermo Fisher staff during the week of installation.

Print name: _____ Date: _____

Signature: _____

Department: _____

IMPORTANT! You must complete the site preparation requirements before the Thermo Fisher Scientific representative begins instrument installation. If the site preparation requirements are not complete, delays will occur in the installation process. In the event of this, Thermo Fisher Scientific will require additional purchase order numbers for the additional on-site time and expenses.

Customer and technical support

Thermo Fisher provides technical support to all licensed users. If the instrument must be returned for repair, contact Thermo Fisher Technical Support. Under any of the following conditions, unplug the instrument from the power source and contact Technical Support:

- when the power cord is damaged or frayed.
- if any liquid, such as scan buffer, has been spilled into the instrument.
- if the instrument has been penetrated by water.
- if, after service or calibration, the instrument does not perform in accordance with the capabilities stated in the specifications.
- if the instrument has been dropped or otherwise damaged.
- if, after service or calibration, the instrument does not perform to the specifications stated in Table 4 on page 15.

Visit **thermofisher.com/support** for the latest in services and support, including:

- Worldwide contact telephone numbers
- Product support, including:
  - Product FAQs
  - Software, patches, and updates
- Order and web support
- Product documentation, including:
  - User guides, manuals, and protocols
  - Certificates of Analysis
  - Safety Data Sheets (SDSs; also known as MSDSs)

    Note: For SDSs for reagents and chemicals from other manufacturers, contact the manufacturer.

For support visit **thermofisher.com/support** or email **techsupport@lifetech.com**
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