



# Installation manual Gallery Plus

Version 6.0

N12273 Revision A • October 2016

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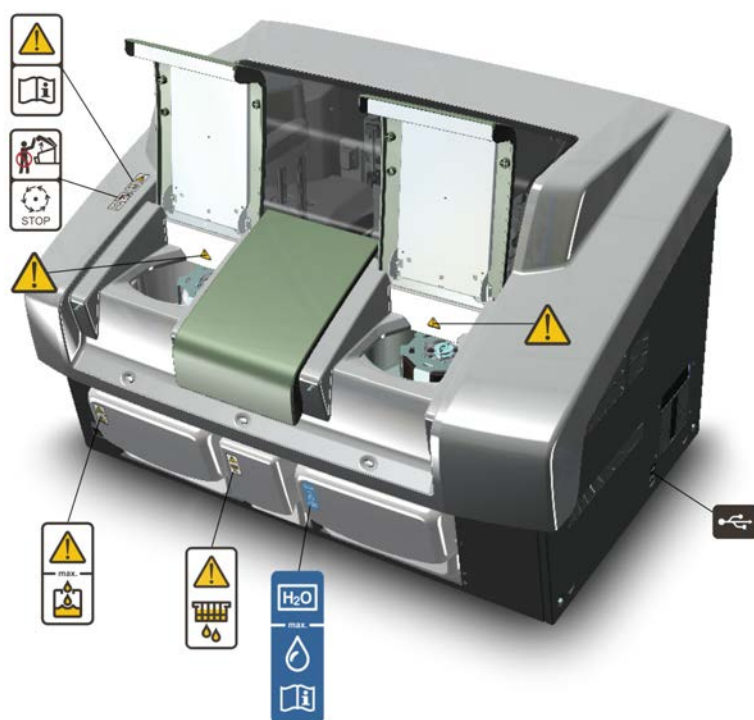
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## Safety information

Physical handling of this analyzer requires a team effort. The analyzer is too heavy and bulky for one person alone to handle safely.

**Figure 1.** Safety labeling outside analyzer



### Safe operation



#### Warning

Follow the instructions to ensure the correct and safe operation.

All surfaces under the main cover are potential sources of toxicants and irritating biological agents. Use protective gloves, spectacles and clothes.

### Main cover



#### Warning

Do not open the cover, if the analyzer is in the **Running** or **Analyzing** state.

If the cover is opened when analysis is going on, tests under processing are lost. Mechanical parts may move a few seconds after opening the main cover. Refer to Operation Manual on how to stop analyzer safely.

### Cuvette waste bin



#### Warning

The cuvette waste bin and cuvettes are a potential source of toxicants and irritating biological agents.

Treat the cuvette waste bin and used cuvettes as other dangerous material in laboratory. Use protective gloves, spectacles and clothes when working with the waste water container. The operator must be cautious when working with the cuvette waste bin.

### Waste water container



#### Warning

The waste water container is a potential source of toxicants and irritating biological agents.

Treat the waste water container as other dangerous material in laboratory. Use protective gloves, spectacles and clothes when working with the waste water container. The operator must be cautious when working with the waste water container.

### Deionized water container



#### Information

Keep the deionized water container away from a potential source of toxicants and irritating biological agents.

Use only as a deionized water container and clean as instructed. Do not overfill the container, see the maximum water limit.

## Racks



### Caution

Racks are potential sources of toxicants and irritating biological agents.

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## USB cable

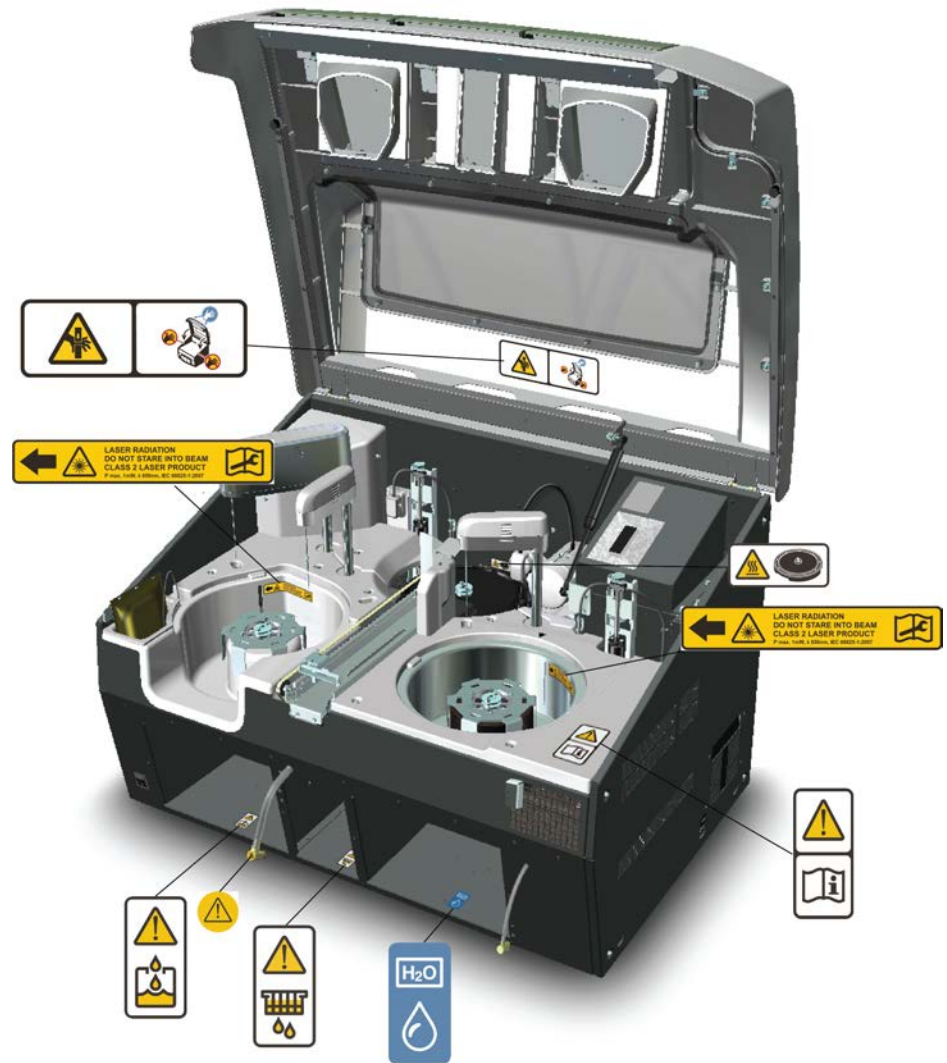


### Information

Use only for connection between the analyzer and workstation. The maximum length of the USB cable is 2 meters.

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**Figure 2.** Safety labeling inside analyzer



### Safe operation



#### Warning

Follow the instructions to ensure the correct and safe operation.

All surfaces under the main cover are potential sources of toxicants and irritating biological agents. Use protective gloves, spectacles and clothes.

**Figure 3.** Tubing connector



### Tubing connector



#### Warning

The tubing connector of the waste water container is a potential source of toxicants and irritating biological agents.

### Main cover



#### Caution

When closing the cover, put your hands to the left and right side on its outer front surface (see the blue areas in the sign) and press the cover downwards until you hear a "click" sound.

## Incubator



### Caution

The surface of the incubator might be hot. Always keep the insulating cover in its place.

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## Barcode reader



### Caution

Laser detects the barcodes. Keep the covers closed during analysis.

Laser radiation. Do not stare into beam. Class 2 laser product.

- The laser follows the IEC 60825-1:2007 standard.
  - The maximum output of laser radiation is 1 mW.
  - The emitted wavelength is 650 nm.
-



## Notices

When the system is delivered to you, it meets the pertinent electromagnetic compatibility (EMC) and safety standards as described below.

## Standards

**Table 1.** Conformity with the following international standards and regulations

Standard	Title
<ul style="list-style-type: none"> <li>EN ISO 12100</li> </ul>	Safety of machinery – General principles for design – Risk assessment and risk reduction.
<ul style="list-style-type: none"> <li>EN 61010-1</li> <li>IEC 61010-1</li> <li>UL 61010-1</li> <li>CAN/CSA-C22.2 No. 61010-1</li> </ul>	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements.
<ul style="list-style-type: none"> <li>EN 61010-2-010</li> <li>IEC 61010-2-010</li> <li>CAN/CSA-C22.2 No. 61010-2-010</li> </ul>	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-010: Particular requirements for laboratory equipment for the heating of material.
<ul style="list-style-type: none"> <li>EN 61010-2-081+A1</li> <li>IEC 61010-2-081+A1</li> <li>CAN/CSA-C22.2 No. 61010.2.081</li> </ul>	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes.
<ul style="list-style-type: none"> <li>EN 61326-1</li> </ul>	Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements.
<ul style="list-style-type: none"> <li>EN 61000-6-2</li> </ul>	Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments.
<ul style="list-style-type: none"> <li>EN 61000-6-3</li> </ul>	Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments.
<ul style="list-style-type: none"> <li>FCC CFR 47 Part 15</li> </ul>	Subpart B, Class B. EMC Requirements for US.

Standard	Title
<ul style="list-style-type: none"> <li>EN 50581</li> </ul>	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

## CE



The CE mark attached on Gallery Plus (chemistry analyzer, type 862) indicates the conformity with the EMC (electromagnetic compatibility) directive 2004/108/EC and Machinery Directive 2006/42/EC and RoHS directive (Restriction of the use of certain hazardous substances in electrical and electronic equipment) 2011/65/EU.

Changes that you make to your system may void compliance with one or more of these EMC and safety standards. Changes to your system include replacing a part or adding components, options, or peripherals not specifically authorized and qualified by Thermo Fisher Scientific. To ensure continued compliance with EMC and safety standards, replacement parts and additional components, options, and peripherals must be ordered from Thermo Fisher Scientific or one of its authorized representatives.

## FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## WEEE Compliance

This product is required to comply with the European Union's Waste Electrical & Electronic Equipment (WEEE) Directive 2012/19/EU. It is marked with the following symbol:



Thermo Fisher Scientific has contracted with one or more recycling/disposal companies in each EU Member State, and these companies should dispose of or recycle this product. For further information on Thermo Fisher Scientific's compliance with these directives, the recyclers in your country, and information on Thermo Fisher Scientific products which may assist the detection of substances subject to the RoHS Directive contact us by e-mail: [weee.recycle@thermofisher.com](mailto:weee.recycle@thermofisher.com).

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## Preface

Installation Manual contains instructions on how to install the analyzer. This manual provides procedures for mechanical and electrical installation.

## Intended use

Thermo Scientific Gallery Plus is a discrete, automated chemistry analyzer. In addition to photometric measurement, the analyzer supports electrochemical measurement (ECM) technique.

Gallery Plus is specifically designed e.g. for food, beverages, water, environmental and different bioprocess applications. Thermo Scientific Gallery Plus is offered with various system applications. Furthermore, the analyzer supports user definable application setup.

Gallery Plus *Beermaster* model is dedicated for beer and wort quality control and analysis.

## Intended audience

This manual is addressed to the personnel responsible for installing the analyzer. The operator must be trained in and should have a knowledge of handling the analyzer.

**Note** It is recommended to follow good laboratory practices (GLP).

## Product documentation

The product documentation consists of the following manuals:

- Operation Manual contains instructions on how to operate the analyzer during normal operation once it has been installed. The manual can be used to find out what needs to be done before running analyses and how to run analyses. The manual also contains daily maintenance task descriptions and a troubleshooting guide.
- Reference Manual contains operational and analysis principle descriptions and lists test parameters per test.
- Installation Manual contains instructions on how to install the analyzer. The manual describes procedures for mechanical and electrical installation. The chapters are organized in the chronological order in which the analyzer should be installed.

- Service Manual contains instructions on how to service and maintain the analyzer. The manual also describes procedures for adjusting the analyzer and information about the analyzer parts. The manual also lists spare parts and accessories. Service Manual is provided only to the trained service engineers.
- The LIS Interface manual contains instructions on how to integrate the analyzer into the Laboratory Information System (LIS). The manual describes the communication between the analyzer and the host, using the RS-232 or TCP/IP interface.

## Document revision history

Document version and date	Document code	Software version	History
A/July 2011	N12273	3.0	Document created.
B/August 2011	N12273	3.0	Ordering code for touchscreen revised.
A/February 2012	N12273	4.0	Added UPS recommendations, filter verification instructions and analyzer settings instructions, and updated the Consumables and accessories list and the IQOQ procedure.
A/July 2012	N12273	4.1	Updated information about configuration of ECM electrodes and contents of Start-up kit.
B/October 2012	N12273	4.1	PC configuration information and filter tables updated.
A/June 2013	N12273	5.0	Updated system configuration information.
A/October 2013	N12273	5.1	Checked the content against 5.1 software. Updated barcode sticker instructions.
A/July 2014	N12273	5.2	Checked the content against 5.2 software.
A/June 2015	N12273	5.3	Updated Part 6 of Installation, operational and performance qualification. Updated WEEE Compliance information and contact information.
A/October 2016	N12273	6.0	Added connecting instructions for peristaltic pump tube and information about new sample rack types and tube support plate. Updated analyzer pictures because of a new main cover gas spring. Added instructions how to connect new PC and adjust touch screen. Updated Consumables list and Installation, operational and performance qualification section.

The original language of these instructions is English.



# Document symbols and conventions

## Symbols in manual

This manual uses notes that point out important information related to the correct and safe operation of the analyzer. Therefore, comply fully with all notices.

**Note** The note icon informs the operator of relevant facts and conditions.

**CAUTION** The caution icon indicates important information or warnings related to the concept discussed in the text. It might indicate the presence of a hazard which could result in the corruption of software or damage to equipment or property.

## Document conventions

- Important abbreviations and terms in this manual are spelled out in Glossary.
- The last command of the user interface menu path is presented in bold, for example: Select F2 > Samples > **New**.
- Menu names in the user interface are shown in bold, for example: Select the correct test from the **Test name** drop-down menu in the Results view.
- Parameter names are shown in italics, for example: The test can be taken into or out of use with the *In use* parameter.
- Parameter values are indicated with quotation marks, for example: The values of the *In use* parameter are “Yes” and “No”.
- The statuses and messages are shown in Courier font, for example `NO valid calibration`.

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## Operating environment

**Note** The electromagnetic environment should be evaluated prior to operation of the analyzer. Do not use this analyzer in close proximity to sources of strong electromagnetic radiation, for example, unshielded intentional RF-sources. They may interfere with the proper operation.

**Note** Installing any 3<sup>rd</sup> party software to the workstation PC is not supported by Thermo Fisher Scientific. The 3<sup>rd</sup> party software (e.g. antivirus software) can interfere with the analyzer performance and, for instance, generate error messages like “internal timing error” or “master used too much time”. Thermo Fisher Scientific is not responsible for possible errors due to 3<sup>rd</sup> party software installed by customer.

**Note** It is not recommended to connect the workstation to the Internet due to the risk of viruses, unless specifically requested by Thermo Fisher Scientific in order to join a remote support session. To use remote connection, refer to the instructions in the Operation Manual.

### ❖ Dimensions

**Table 2.** Dimensions and weight of the analyzer

Description	cm / kg	in / lb
Width	94 cm	37.0 in
Height	62 cm / 130 cm	24.4 in / 51.2 in
Depth	70 cm	27.6 in
Weight	110 kg	242.5 lb

**Note** Dimensions are given without workstation and display.

### ❖ Power supply

**Table 3.** Power supply to the analyzer

Description	Value
Voltage	100 - 240 VAC ± 10%
Frequency	50 - 60 Hz ± 5%

## 1 Operating environment

### Operating environment

Description	Value
Power consumption	300 W

**Note** It is recommended to have UPS for power loss protection in analyzer and workstation. Connect UPS only to the workstation, monitor and analyzer. Do not connect UPS to the printer.

**Table 4.** Minimum recommendation for UPS

Description	Value
UPS minimum recommendation, VA	1500

#### ❖ Analyzer's decibel level (dB)

Average noise level at 1 meter <60 dB(A).

#### ❖ Environmental conditions

- Ambient temperature: 18...30 °C
- Relative humidity: 40 - 80%, non-condensing
- Altitude: < 2000 m from the sea level
- Heat output: 680 (without ECM) / 750 (with ECM) BTU/h
- Electromagnetic environment:
  - basic electromagnetic environment (residential, office, laboratory, light industry)
  - industrial electromagnetic environment

#### ❖ Water requirements

Follow the local water regulations set for the laboratory. The following specification is a minimum requirement for water. Requirements for Clinical Laboratory Reagent Water (CLRW) developed by Clinical and Laboratory Standards Institute (CLSI).

**Table 5.** Clinical laboratory reagent water requirements

Description	Value
Resistivity	$\geq 10 \text{ M}\Omega \cdot \text{cm}$ referenced to 25 °C
TOC	< 500 ppb
Micro-organisms	< 10 CFU/ml
Particle-free	$\geq 0.22 \mu\text{m}$

## Unpacking and inspecting

- Removing transport casing
- Recycling packing material
- Inspecting product

### Removing transport casing

To remove a transport casing:

1. Examine the packaging to see if any damage occurred during transportation.
2. To remove the transport casing, refer [Removing transport casing](#) on page 29 for unpacking instructions.
3. Remove packing material inside the analyzer.

**Note** Handle analyzer carefully.

### Recycling packing material

To recycle the packing material, follow the local recycling instructions.

**Table 6.** Packing materials

Packing item	Material
Packing case	Cardboard
Pallet	Wood, Plywood, fumigated according to the standard ISPM 15
Screws	Metal (Fe)
Protection tube	Polythene (PE-LD CFC / HCFC free), plastic identification code: 04
Foam block	Polythene (PE-E), plastic identification code: 04
Fastening beam	Metal (Fe)

## 2 Unpacking and inspecting

### Inspecting product

Packing item	Material
Quick locks	Plastic, plastic identification code: 07

To recycle packing material used for the accessories, refer to the manufacturer's instructions.

## Inspecting product

### Identifying product

1. Locate the analyzer's serial number from the label at the back of the analyzer.
2. Compare the serial number with the shipping list to verify that the received product is correct.

### Checking delivery items

Check that all items are included in the delivery in accordance with the shipping list.

### Inspecting analyzer

The analyzer requires careful handling before installing. Examine the analyzer to see if any damage occurred during transportation.

### Returning analyzer damaged in transit

If the analyzer has damaged during transportation, contact your product representative. Notify Thermo Fisher Scientific if there are any discrepancies in relation to the delivery documents.

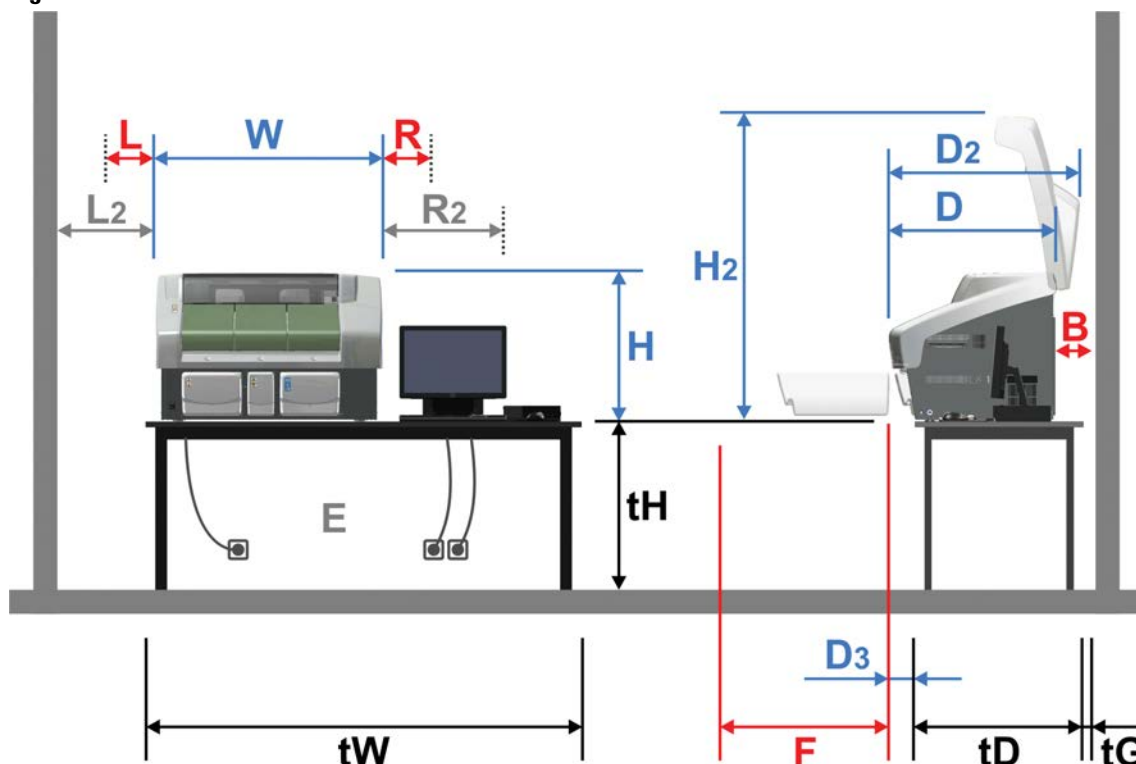
## Space and load requirements

The recommended layout for the analyzer and workstation is shown in the figure below. Place the analyzer and workstation on a workbench that has minimum dimensions of  $180 \times 70$  cm ( $70.9 \times 27.6$  in). The workbench must be capable of supporting the weight of the operating analyzer [119 kg (262.3 lb)] plus the weight of the workstation. The operating analyzer contains consumables such as water, cuvettes, racks, reagents and samples. It is recommended to have extra space for handling racks. Allow about 20 cm (8 in) of clear space behind the system for proper air circulation and for maintenance and electrical connections. In addition, allow at least 70 cm (27.6 in) of vertical clearance between the top of the analyzer and any shelves above it. Place the workstation on the right side of the analyzer.

Each power plug must have own wall outlet. It is not recommended to use extension cables.

**Note** It is recommended to have UPS for power loss protection in analyzer and workstation. Connect UPS only to the workstation, monitor and analyzer. Do not connect UPS to the printer.

**Figure 4.** Recommended workbench



The space requirements of the analyzer, workstation and table are shown in the following tables. The space requirements are approximate values and the actual values depends on the used accessories.

### 3 Space and load requirements

#### Space and load requirements

**Table 7.** Space requirements for table

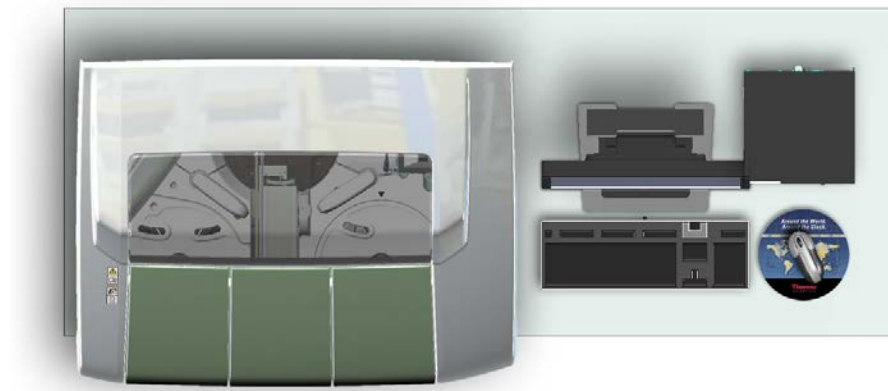
Dimension	cm	in.	Description
tW	180	70.9	Recommended table width
tH	70	27.6	Recommended table height
tD	70	27.6	Recommended table depth
tG	5	2.0	Recommended gap between the table and wall for cabling

**Table 8.** Space requirements for analyzer

Dimension	cm	in.	Description
W	94	37.0	Analyzer width
H	62	24.4	Analyzer height, main cover closed
H2	130	51.2	Analyzer height, main cover opened
D	70	27.6	Analyzer depth, main cover closed
D2	80	31.5	Analyzer depth, main cover opened
D3	11	4.3	Analyzer depth, max. exceeding of table edge. main cover closed
L	20	7.9	Clear space for air circulation on the left side
L2	40	15.8	Clear space for maintenance on the left side
R	20	7.9	Clear space for air circulation on the right side
R2	40	15.8	Clear space for maintenance on the right side
B	20	7.9	Clear space for air circulation and maintenance on the back
F	70	27.6	Work space on the front of the analyzer



**Figure 5.** Placing analyzer and workstation on table



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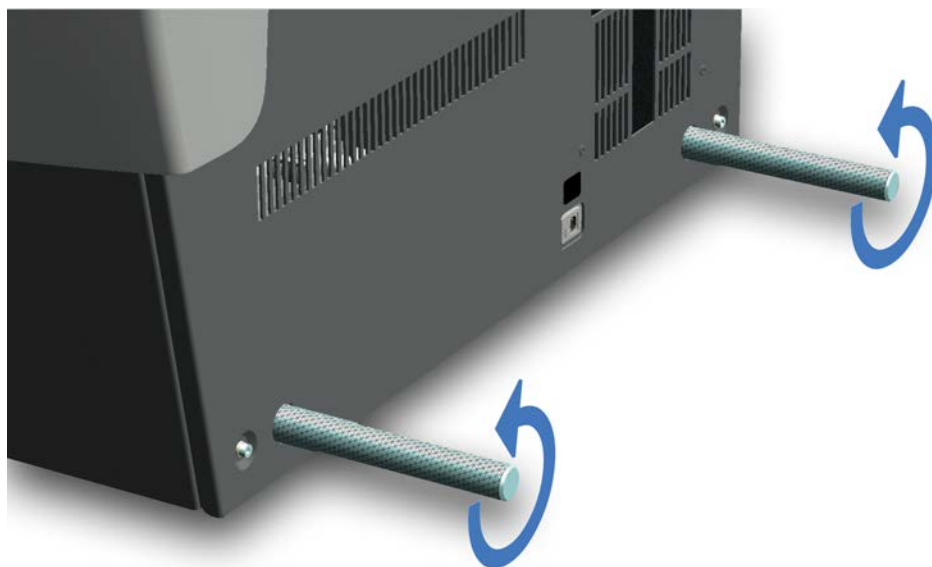
## Setting up

- Removing handles
- Washing water containers and cuvette waste bin
- Connecting peristaltic pump tube
- Unsecuring probes and mixer
- Checking probes
- Placing rack labels
- Checking filters
- Installing ECM unit
- Setting up workstation and connecting cables

## Removing handles

To remove handles, turn handles counterclockwise.

**Figure 6.** Removing handles



## 4 Setting up

Washing water containers and cuvette waste bin

# Washing water containers and cuvette waste bin

Before first use, rinse deionized water container with deionized water and waste container and cuvette waste bin with tap water.

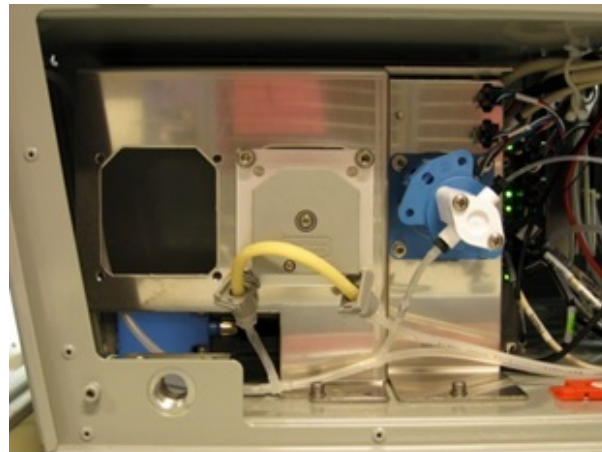
**Figure 7.** Cleaning containers and cuvette waste bin



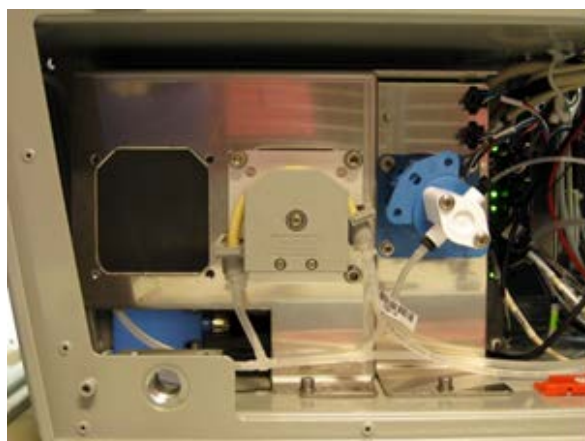
# Connecting peristaltic pump tube

To connect peristaltic pump tube:

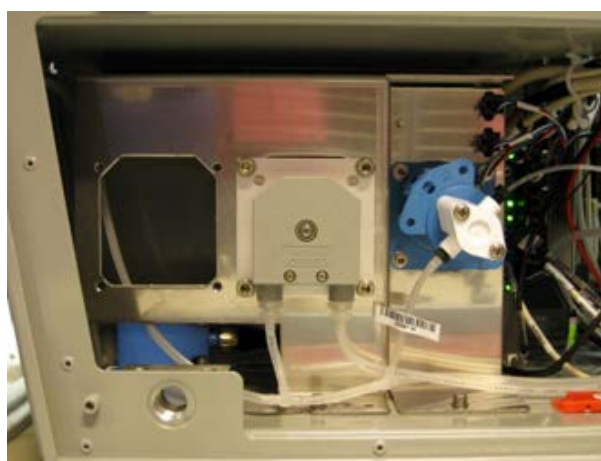
1. Open the right cover plate.



2. Remove the tube holder clamp.
3. Place the yellow tube over the peristaltic pump.



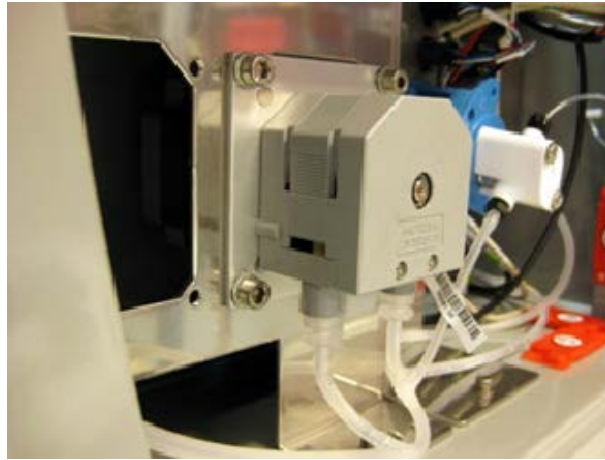
4. Attach the tube fittings to their place.



5. Put the tube holder clamp in its place.

## 4 Setting up

Unsecuring probes and mixer

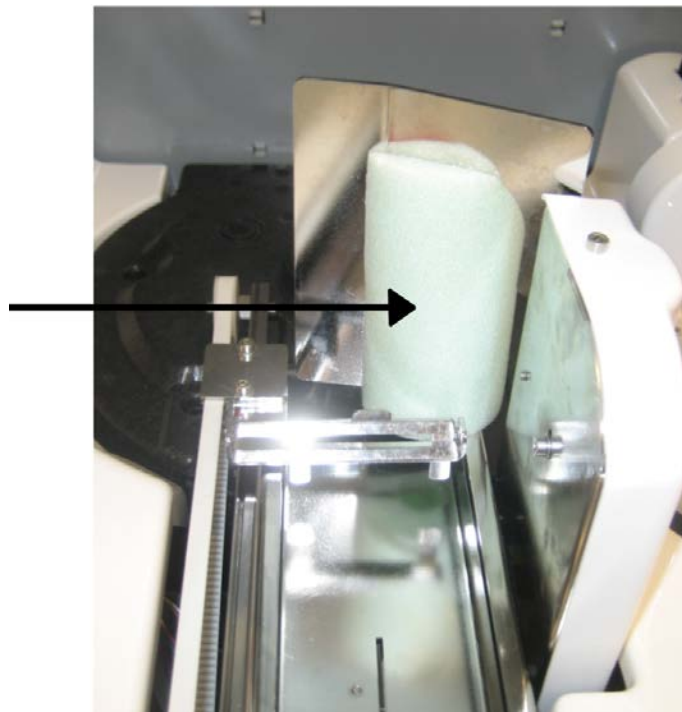


6. Place the ECM probe wash peristaltic pump tube in a similar way.
7. Close the right cover plate.

## Unsecuring probes and mixer

To unsecure the probes and the mixer:

1. Remove the foam plastic.



2. Open the screws on the support arms.



3. Remove the support arms.

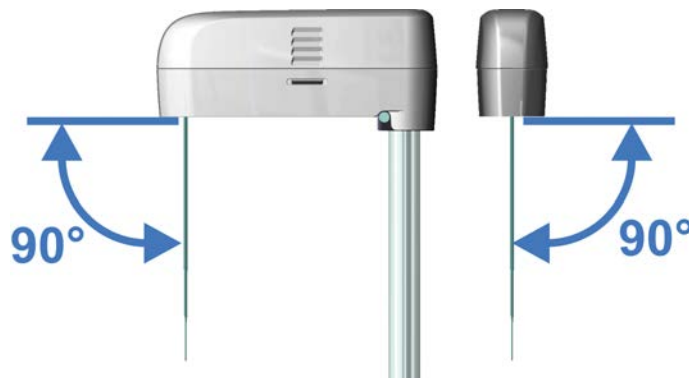
## Checking probes

Check that the probes are straight and in their places. The service engineer adjusts the probe to the correct positions.

## 4 Setting up

### Placing rack labels

**Figure 8.** Checking probes

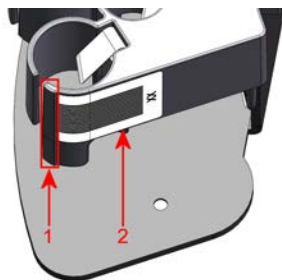


## Placing rack labels

If the racks are without barcodes, place the barcode labels on the racks. To place a barcode label on the rack:

1. Make sure that the rack ID label and barcode label you are about to use have the same ID number.
2. Stick the rack ID label on the rack as shown in the following figures.
3. Stick the barcode label as shown in the following figures. Make sure that the barcode is not aligned on the tube position's lip and there is no gap between the lip and the barcode.

**Figure 9.** Aligning a barcode on the rack



- 1 - Lip of the tube position
- 2 - Barcode

**Note** Make sure you place the correct rack labels on the racks.

The rack IDs are divided as follows:

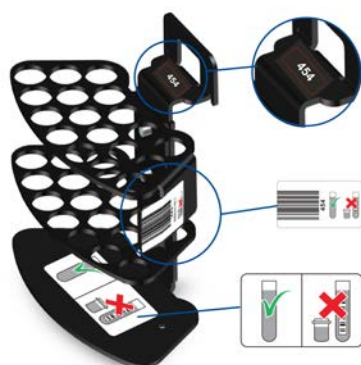
- Sample rack 9 - standard for cups and tubes: 1 - 79
- Sample rack 9 - blue for cups and tubes: 80-99
- Sample rack 18 - non-barcoded for cups: 401-449
- Sample rack 18 - non-barcoded for tubes: 451-499



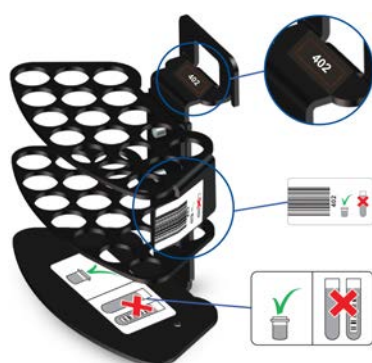
**Figure 10.** Barcode label and rack ID label on 9-position sample racks (Rack IDs 1-79 and 80-99)



**Figure 11.** Barcode label, rack ID label and infolabel on 18-position sample rack for tubes (ID numbers 451 - 499)



**Figure 12.** Barcode label, rack ID label and infolabel on 18-position sample rack for cups (ID numbers 401 - 449)



## Checking filters

Make sure the filters are placed on the filter wheel in the right order. If the order of the filters has to be corrected, refer to the Service Manual for instructions on changing filters.

## 4 Setting up

### Setting up

This operation is only to be done by trained service engineers.

To check the filters:

1. Unscrew the flash end plastic cover.
2. Wear clean cotton gloves to avoid fingerprints on the filter window.
3. Spin the filter wheel and check that the filters are placed in the right order. The right order of the filters is given in the Service Manual, chapter "Changing filters", or at F5 > Configuration > **Filter**.
4. Screw the plastic cover back in its place.

**Table 9.** Filter sets

Wavelengths in nm	Water	Wine	Juice	Enzymes/ food	Beer
340	X	X	X	X	X
380					
405				X	X
420	X	X	X	X	
430					X
480	X		X		
492			X		
510	X	X	X	X	
520		X	X	X	X
540	X	X	X	X	X
550					
575	X	X	X	X	X
600	X	X	X	X	X
620	X	X	X		
660	X	X	X	X	X
700	X	X		X	X
750		X			
880	X				

**Note** A 275 nm filter is also available. However, the 275 nm is used only for special analysis. It is not suited for true sample blank or customer tailored methods.

## Installing ECM unit

**Note** The analyzer must be switched off before installing the ECM unit.

Analyzer ordered with the ECM unit includes:

- Electrode White Assembly A
- Electrode White Assembly B for the conductivity measurement

**Note** For measurement, you need to additionally order an ECM Start up kit (986200), which contains an electrode EC Assembly needed in conductivity measurement.

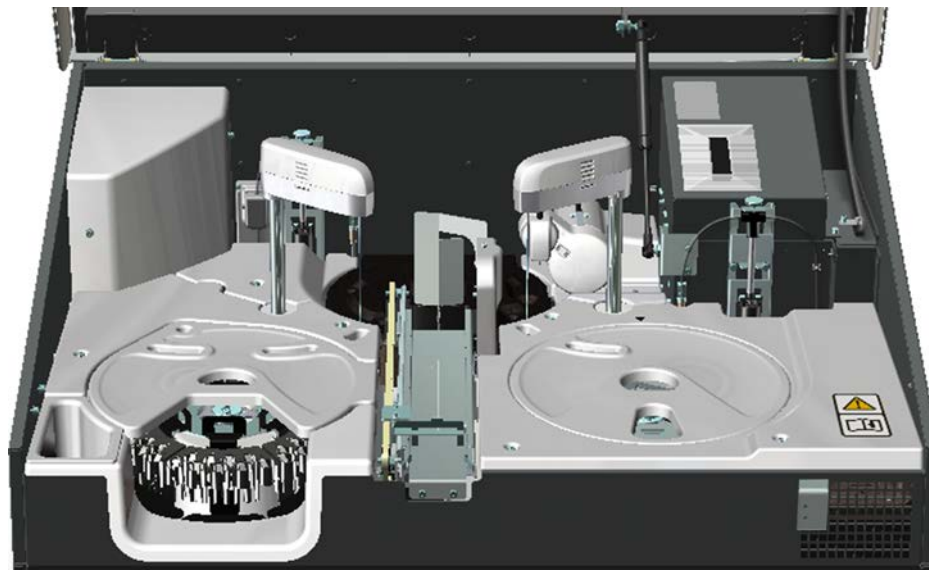
**Figure 13.** Analyzer with ECM unit



## 4 Setting up

### Electrodes

**Figure 14.** Analyzer without ECM unit



## Electrodes

The micro-volume ion-selective electrodes are ready-to-use.

**Figure 15.** Main parts of the electrode



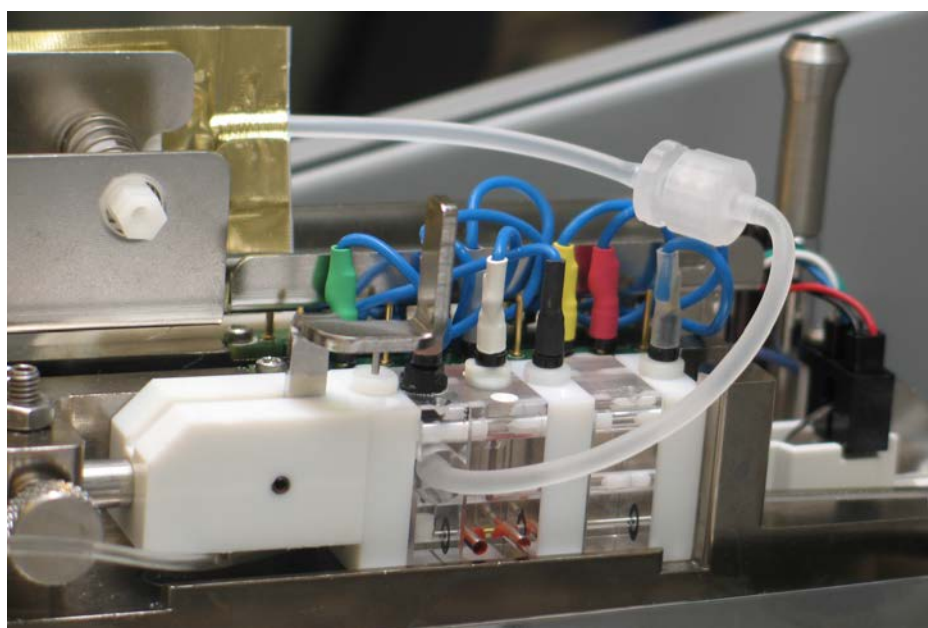
- 1 - Electrode pin
- 2 - Electrode cap
- 3 - Colored dot
- 4 - Positioning dowel pins
- 5 - Electrode chamber
- 6 - Small O-ring
- 7 - Sample channel

Place the electrodes always from rod to probe according to the order in the following table. To prevent connecting wires and electrodes wrong, connect wire and electrode having the same color mark.

**Table 10.** Order of ECM electrodes from rod to probe

Order	Electrode	Color code	Color of connecting wire
1	White Assembly A (not connected)	-	-
2	Reference electrode	Brown	Brown
3	pH electrode	White	White
4	EC Assembly	Transparent	Black
5	Spacer slice	Transparent	-
6	White Assembly B	Transparent	Transparent

**Figure 16.** Connecting wires and electrodes



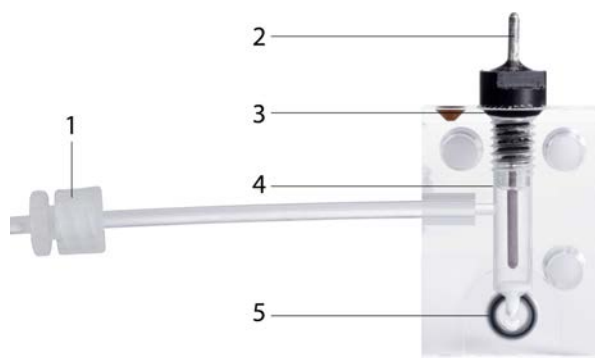
**Note** Calibrate the tests and run quality controls after working with the ECM unit.

## 4 Setting up

### Setting up

## Preparing reference electrode

**Figure 17.** Reference electrode



- 1 - Reference electrode tube fitting
- 2 - Internal electrode
- 3 - Large O-ring
- 4 - Optimal filling solution level
- 5 - Small O-ring

To prepare a reference electrode for installation:

1. Remove the packing material from the reference electrode.
2. Rinse the outer surface of the electrode with distilled water.
3. Wipe the electrode dry.
4. Remove the internal electrode from its protective cover.
5. Remove the O-ring from the inner pin without damaging pin's surface.
6. Place a new large O-ring in place of the one just removed.
7. Insert the internal electrode into the chamber of the electrode.
8. Install the internal electrode pin loosely (do not tighten).
9. Remove the cap from the reference filling solution bag.
10. Tightly screw the reference electrode tube fitting into the filling solution bag tube fitting.
11. Squeeze the bag to partly fill the electrode chamber if needed.

The filling solution should be above the connection from the filling bag to the inner chamber. See [Figure 17. Reference electrode](#) on page 20.

12. Tighten the electrode cap first by hand, then with the tightening tool.

The tightening tool is located at the opposite end of the pin's original protective cover.

13. Rinse the electrode briefly under tap water and dry carefully with tissue paper.
14. Place small O-ring to its place. See [Figure 17. Reference electrode](#) on page 20.

## Preparing electrodes

To prepare an electrode for an installation:

1. Open the foil bag.

2. Check that the inner filling solution covers the membrane.

To remove the air from the membrane surface:

1. Hold the electrode upright.
2. Gently flip the electrode in a downward direction.

**Note** Do not knock the electrode on a hard surface.

## Installing ECM electrodes

To install the electrodes:

1. Open the ECM unit cover.
2. Detach the clamp.
3. Open the clamp by pushing down the handle.
4. Loosen the thumb screw.
5. Push clamp all the way to the left.
6. Place the electrodes always from rod to probe according to the order in [Order of ECM electrodes from rod to probe](#), on page 19.
7. Push the clamp and metal rod into place.

**Note** The alignment rod should snap into place when a groove is in the right position. It can be helpful to insert the rod as far as you can and then pull the rod back slowly until it clicks into place.

8. Tighten the thumb screw.
9. Lift the clamp handle to clamp the electrodes into place. It does not require a great amount of effort.

**Note** The O-rings are more visible if the electrodes are clamped to the proper tightness.

10. Connect wires to each pin.

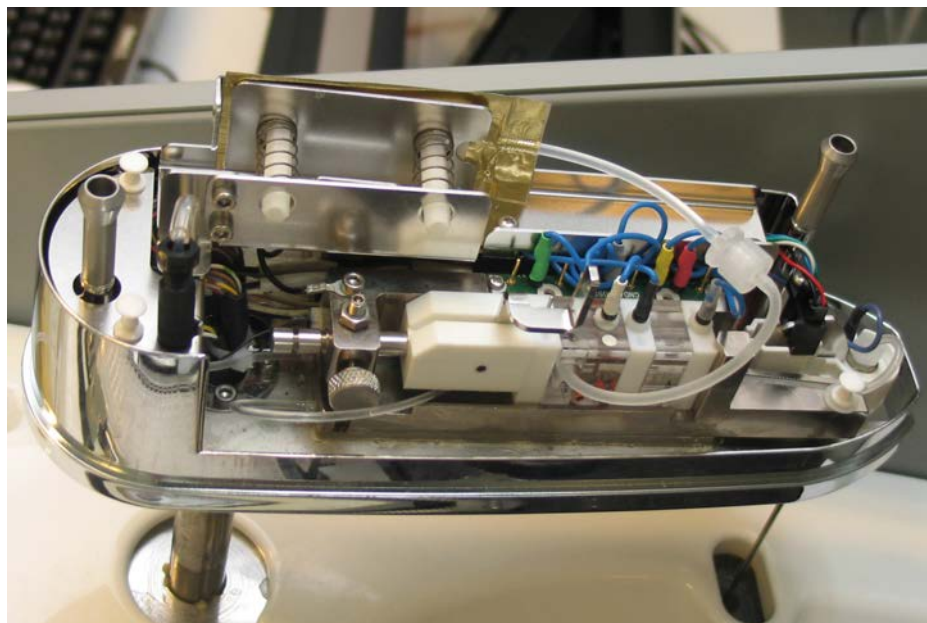
**Note** Because of the grounding unused electrode wires have to be connected to the GND4 circuit board behind the electrode block.

11. Install the reference filling solution bag.

## 4 Setting up

### Installing ECM rinse liquid bag

**Figure 18.** Reference filling solution bag installed



12. Close the ECM unit cover.

**Note** Calibrate the tests and run quality controls after working with the ECM unit.

## Installing ECM rinse liquid bag

To install the ECM rinse liquid bag:

1. Connect the tube of the rinse liquid bag to the tube coming from the ECM dispensing pump.
2. Hang the bag in its place.
3. Select F5 > Actions > **Add ECM rinse liquid** to fill the tube with liquid.

## Testing ECM electrodes

To test the electrodes:

1. Run start-up procedure as described in Operation Manual.
  2. Run and accept a calibration.
  3. Review the calibrations of each electrode.
- For more information about calibration, refer to Operation Manual.

**Note** If problems occur, check the connections of electrodes and rinse liquid bag.



## Setting up workstation and connecting cables

The workstation consists of:

- PC
- monitor, keyboard and mouse
- handheld barcode scanner (optional)
- printer (optional)
- cables

Each power plug must have its own wall outlet. It is not recommended to use extension cables.

**Note** It is recommended to have UPS for power loss protection in analyzer and workstation. Connect UPS only to the workstation, monitor and analyzer. Do not connect UPS to the printer.

**Figure 19.** PC port connections



- 1 - Power cable
- 2 - Monitor
- 3 - In reserve
- 4 - Touchscreen
- 5 - CAN-USB, connection between analyzer and workstation.
- 6 - Printer (optional)
- 7 - Proprietary connector reserved for LIS connection through the included adapter
- 8 - Ethernet port can be used for LIS (laboratory information system) connections

## 4 Setting up

### Setting up

**Note** Do not use network cable connection for the internet or other LAN connections, unless specifically requested by Thermo Fisher Scientific in order to join a remote support session. To use remote connection, refer to the instructions in the Operation Manual.

To set up and connect cables:

1. Connect the USB cable between the analyzer and workstation.



2. Connect the serial R232 adapter to the proprietary connector.



3. Connect the monitor to the PC.  
If ELO touchscreen suffers from poor aspect ratio and image quality, do the following:
  - a. Open the **Main Menu** from the monitor adjustment keys below the screen.
  - b. Navigate to **Image Setting**.
  - c. Choose **Aspect Ratio**.
  - d. Choose **Fill to Aspect Ratio**.
4. Connect the keyboard to the PC's front panel.



- 1 - Keyboard
- 2 - Handheld barcode scanner (optional) / USB Flash drive

The front panel also provides a USB port for a USB Flash drive or an optional handheld barcode scanner.

- 5. Connect the mouse to the keyboard.



- 1 - Mouse

- 6. Connect the analyzer's power cable.



## 4 Setting up

Setting up

7. Connect the workstation's power cable.



## Starting up analyzer

To start-up the analyzer:

1. Switch on the analyzer from the main switch.



2. Start the computer.
3. Switch on the monitor.
4. Start the program by double-clicking the icon on the desktop.
5. Log on the program.
6. Follow the IQ/OQ procedure to configure analyzer and workstation.

**Note** Reference Manual in English and the folders for all language versions of Operation Manual and Installation Manual are placed on the computer's desktop.

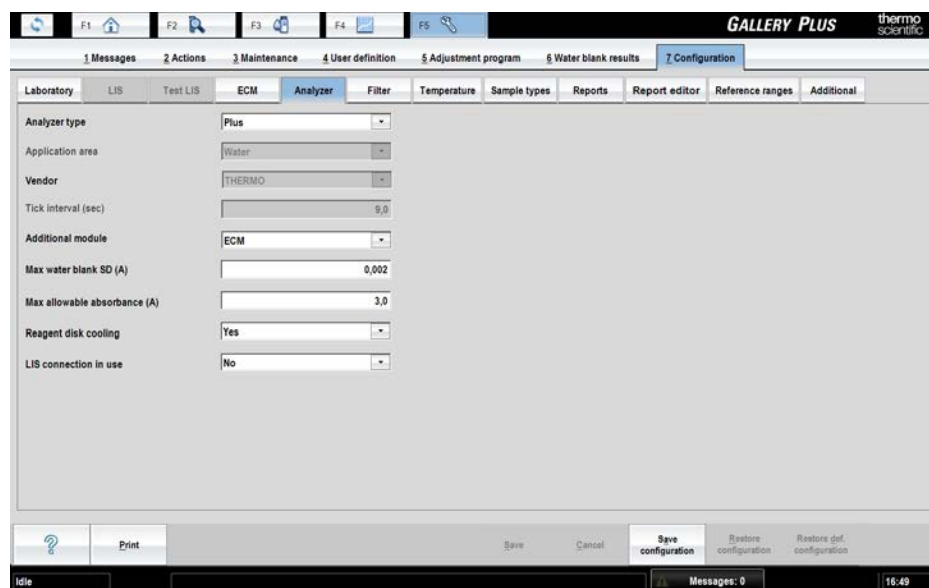
**Note** For more information about normal operations, refer to Operation Manual.

- [Configuring analyzer settings](#)

## Configuring analyzer settings

Analyzer settings are configured by the service engineer after installing the analyzer. To configure the settings, select F5 > Configuration > **Analyzer**.

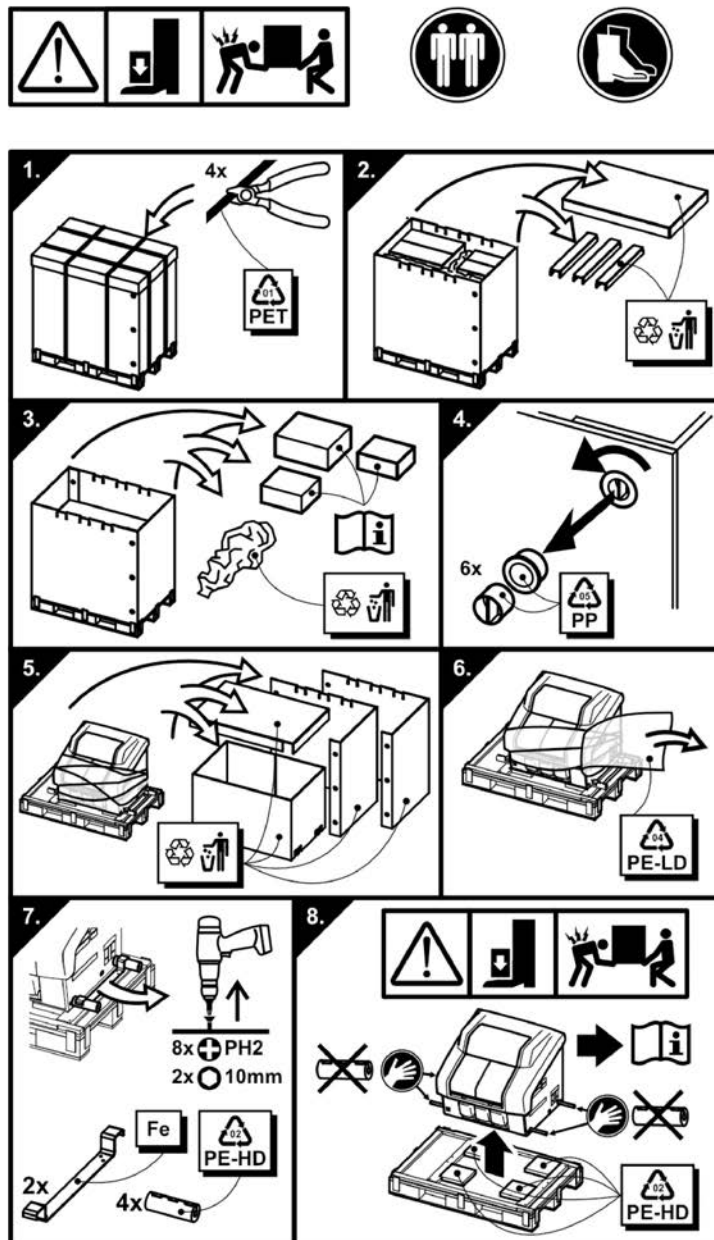
**Figure 20.** Analyzer settings



**Table 11.** Analyzer configuration parameters

Parameter	Description
Analyzer type	Define the analyzer type.
Application area	Shows the application area.
Vendor	Shows the vendor of the analyzer.
Tick interval (sec)	Shows the length of the tick in seconds. Tick is a basic measurement unit for the analyzer.
Additional module	Define the additional module used in the analyzer. If no additional module is used, select <i>None</i> . The default value is set by the manufacturer.
Max water blank SD (A)	Define the maximum allowed limit for water blank standard deviation (SD).
Max allowable absorbance (A)	Define the maximum allowed absorbance value. If the value exceeds the defined value, an error message is displayed in result reports.
Reagent disk cooling	Define whether the reagent disk is cooled or not.
LIS connection in use	Define whether the LIS connection is in use or not.

## Removing transport casing



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## Sample rack types

The analyzer supports three different sample rack types. The racks are color-coded and each rack type has specified rack ID numbering. Standard analyzer package includes six pieces of sample rack 9 - standards. All other sample racks must be ordered separately.

Sample rack 9 - standard	Positions: 9	Rack ID: 1-79	Color: Black
	<b>Supported cups</b>		
	<b>Volume</b>	<b>Diameter x height</b>	<b>Note</b>
	0.5 ml cup	13 x 25 mm	Recommended cup height
	2 ml cup	13 x 25 mm	Recommended cup height
	4 ml cup	17 x 38 mm	
	<b>Supported tubes</b>		
<b>Volume</b>	<b>Diameter x height</b>	<b>Note</b>	
5 ml tube	13 x 75 mm		
7 ml tube	13 x 100 mm		
10 ml tube	16 x 100 mm	Positions 5-9 only	
Sample rack 9 - blue	Positions: 9	Rack ID: 80-99	Color: Blue
	<b>Supported cups</b>		
	<b>Volume</b>	<b>Diameter x height</b>	<b>Note</b>
	0.5 ml cup	13 x 25 mm	Recommended cup height
	2 ml cup	13 x 25 mm	Recommended cup height
	4 ml cup	17 x 38 mm	
	<b>Supported tubes</b>		
<b>Volume</b>	<b>Diameter x height</b>	<b>Note</b>	
<b>Note</b> The rack IDs 80-99 are supplied with the blue color			

## Appendix

<b>Sample rack 9 - blue</b>	<b>Positions: 9</b>	<b>Rack ID: 80-99</b>	<b>Color: Blue</b>
rack. The service engineer must adjust the different aspiration height.	5 ml tube 7 ml tube 10 ml tube	13 x 75 mm 13 x 100 mm 16 x 100 mm	Positions 5-9 only

<b>Sample rack 18 - non-barcoded</b>	<b>Positions: 18</b>	<b>Rack ID for cups: 401-449</b> <b>Rack ID for tubes: 451-499</b>	<b>Color: Black</b>
--------------------------------------	----------------------	-----------------------------------------------------------------------	---------------------



### Supported cups

Volume	Diameter x height	Note
0.5 ml cup	13 x 25 mm	
2 ml cup	13 x 25 mm	

### Supported tubes

Volume	Diameter x height	Note
7 ml tube	13 x 100 mm	Only non-barcoded tubes

**Note** The service engineer must do the rack adjustment before this rack can be used.

In the **Sample rack 9 - standard** and **Sample rack 9 - blue**, sample tubes can be secured in place by using a tube support plate. The tube support plate can be ordered separately.

**Figure 21.** Tube support plate installed in the **Sample rack 9 - standard**



**Figure 22.** Inserting cups

**Note** When inserting the cup, make sure the cup shoulder stays above the top edge of the rack.

**Figure 23.** Inserting sample tubes

**Note** The test tubes must be non-transparent in color. If transparent tubes are used, a sticker is needed on the side.

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## Consumables and accessories

**Table 12.** Consumables for Gallery

Ordering code	Item	
986540	DECACELL cuvettes	5400 tests
989220	0,5 ml sample cups	1000 pcs
989221	2 ml sample cups	1000 pcs
984618	4 ml sample cups	1000 pcs
984619	7 ml tubes	1000 pcs
984050	10 ml reagent bottles	5 pcs
981456	20 ml reagent bottles	16 pcs
984030	Washing solution 4.5%	4 x 20 ml
980929	Washing solution 4.5%	6 x 100 ml
980659	Cleansing solution	100 ml
981712	Tubing maintenance solution	6 x 20 ml
984330	ECM pH 2 standard	2 x 60 ml
984331	ECM pH 4 standard	2 x 60 ml
984332	ECM pH 7 standard	2 x 60 ml
984333	ECM pH 10 standard	2 x 60 ml
984334	ECM pH 12 standard	2 x 60 ml
984335	ECM conductivity 0.1 standard	1 pc
984336	ECM conductivity 1.4 standard	2 x 60 ml
984337	ECM conductivity 13 standard	2 x 60 ml
984338	ECM conductivity 112 standard	1 pc

Ordering code	Item	
984340	ECM prime	4 x 20 ml
984998	ECM rinse liquid	4 x 400 ml
984717	Bag for ECM Reference	5 x 2 ml
984996	Reference electrode	1 pc
984997	pH electrode	1 pc
SP06666	Sample rack 9 - standard	6 pcs
SP06699	Sample rack 9 - blue	3 pcs
SP06618	Sample rack 18 - non-barcoded	3 pcs
SP15010	Tube Support Plate	6 pcs

**Table 13.** Start-up kit (986100)

Ordering code	Item	
986100	Start-up kit	1 pc
<b>Consists of:</b>		
981712	Tubing maintenance solution	6 x 20 ml
986540	DECACELL cuvettes	5400 tests
989221	2 ml sample cups	1000 pcs
981456	20 ml reagent bottles	16 pcs

**Table 14.** Complete start-up kit (986101)

Ordering code	Item	
986101	Complete start-up kit	1 pc
<b>Consists of:</b>		
981712	Tubing maintenance solution	6 x 20 ml
986540	DECACELL cuvettes	5400 tests
989221	2 ml sample cups	1000 pcs
984618	4 ml sample cups	1000 pcs
984619	7 ml tubes	1000 pcs

Ordering code	Item	
981456	20 ml reagent bottles	16 pcs
984050	10 ml reagent bottles	5 pcs

**Table 15.** ECM start-up kit (986200)

Ordering code	Item	
986200	ECM start-up kit	1 pc
<b>Consists of:</b>		
984996	Reference electrode	1 pc
984997	pH electrode	1 pc
984399	EC Assembly	1 pc
SP09701	Spacer slice 9 mm	1 pc
980659	Cleansing solution	100 ml
984340	ECM prime	4 x 20 ml
984998	ECM rinse liquid	4 x 400 ml

**Table 16.** Upgrade kits

Ordering code	Item	
SP10973	Touchscreen	1 pc
SP10992	2D scanner	1 pc
SP06730	ECM upgrade kit	1 pc
	Electrodes and standard solutions must be ordered separately.	

**Note** Upgrade kits include all required parts.

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# Installation, operational and performance qualification

## IQ / OQ / PQ approvals

### Pre-approved by:

Customer's name:	Place:	Date:	Signature:	Comments:

Vendor rep.'s name:	Place:	Date:	Signature:	Comments:

### Post-approved by:

Customer's name:	Place:	Date:	Signature:	Comments:

Vendor rep.'s name:	Place:	Date:	Signature:	Comments:

Intended use of this documentation: This procedure describes how to perform the Gallery Plus analyzer.

Installation Qualification and Operational Qualification: IQ/OQ.

### Installation Qualification, IQ

- Parts 1 and 2 of this form start with identification of the product received/delivered.
- Installation Qualification describes *the steps that must be done when installing analyzer* at the customer site.
- Installation Qualification is to be done with a qualified person.

### Operational Qualification, OQ

- Parts 3, 4 and 5 of this form describe the steps to ensure that the analyzer is operating correctly and operated by skilled users.
- Operation Qualification is to be done with a trained and certified person.

### Performance/Method Qualification, PQ

- Instructions are not included in this document.
- Will be done and approved by the customer according to their own laboratory QC procedures.

### Information for customer-database

- Part 6 of this form must be sent to Thermo Fisher Scientific after installation. Information is treated as confidential.
- Returned form keeps the warranty valid.

All items should be marked at least with the marking "N/A" (*N/A = Not applicable*) for proper documentation.

**Appendix**

<b>PART 1: Installation qualification</b>	<b>N/A</b>	<b>YES</b>	<b>NO</b>
-------------------------------------------	------------	------------	-----------

*Refer [Removing transport casing](#) on page 29 for unpacking instructions.*

1. Check from the purchase order, that all ordered items have been delivered.		<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------------------------------------------------	--	--------------------------	--------------------------

*Comments:*

2. Packaging boxes checked visually.		<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	--	--------------------------	--------------------------

*No moisture or transport damages. Check tip'n tell indicator.*

*Comments:*

3. Tests measured are:

4. Laboratory working instructions are available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---------------------------------------------------	--------------------------	--------------------------	--------------------------

*Comments:*

**Approved by:**

<b>Customer's name:</b>	Place:	Date:	Signature:	Comments:
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<b>Vendor rep.'s name:</b>	Place:	Date:	Signature:	Comments:
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<b>PART 2: Installation qualification</b>	<b>N/A</b>	<b>YES</b>	<b>NO<sup>(*)</sup></b>
<b>Items included</b>			

*Check the items delivered with the analyzer to ensure that they are present.*

1 Binder contains the following items:		<input type="checkbox"/>	<input type="checkbox"/>
----------------------------------------	--	--------------------------	--------------------------

Hard disk image in the DVD or USB memory key		<input type="checkbox"/>	<input type="checkbox"/>
----------------------------------------------	--	--------------------------	--------------------------

Manufacturing certificate		<input type="checkbox"/>	<input type="checkbox"/>
---------------------------	--	--------------------------	--------------------------

Empty USB flash drive for data saving		<input type="checkbox"/>	<input type="checkbox"/>
---------------------------------------	--	--------------------------	--------------------------

Warning labels for barcode reader in local language installed		<input type="checkbox"/>	<input type="checkbox"/>
---------------------------------------------------------------	--	--------------------------	--------------------------

*Comments:*

2. Spare water container (1 pc)		<input type="checkbox"/>	<input type="checkbox"/>
---------------------------------	--	--------------------------	--------------------------

*Comments:*

3. Racks and barcode labels. *Refer [Placing barcode labels](#) on page 14 for more information about placing barcode labels.*

<b>PART 2: Installation qualification</b>			
<b>Items included</b>	<b>N/A</b>	<b>YES</b>	<b>NO<sup>(*)</sup></b>
Sample racks (6 pcs, SP06666)		<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>			
4. Cables delivered			
Analyzer and workstation power cables		<input type="checkbox"/>	<input type="checkbox"/>
USB cable		<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>			
5. PC accessories include	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitor (flat screen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Touchscreen with power cable and USB cable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitor power cable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2D scanner (hand-held)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>			
6. Proper voltage (110/230V) available		<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>			
7. All cables connected to the PC ( <i>If needed for 2D scanner, printer, LIS and the analyzer</i> )		<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>			
8. Peristaltic pump tubings installed		<input type="checkbox"/>	<input type="checkbox"/>
<i>For more information, refer to <a href="#">Connecting peristaltic pump tube on page 10</a>.</i>			
<i>Comments:</i>			
9. Printer and UPS installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Do not connect the printer to the UPS.</i>			
<i>Comments:</i>			
10. Workstation warranty transferred.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Use the QR code or go to</i>			
<a href="http://www.dell.com/support/retail/us/en/04/ownershiptransfer/IdentifySystem">http://www.dell.com/support/retail/us/en/04/ownershiptransfer/IdentifySystem</a>			

**Appendix**

<b>PART 2: Installation qualification</b>				
Items included	N/A	YES	NO <sup>(*)</sup>	

**Items ordered separately**

It is possible to order Thermo Scientific consumables separately. For more information, refer to [Consumables and accessories](#) on page 35.

**Approved by:**

**Customer's name:** Place: Date: Signature: Comments:

**Vendor rep.'s name:** Place: Date: Signature: Comments:

<sup>(\*)</sup> If something is missing, the item will be sent by the vendor who will confirm the delivery date.

<b>PART 3: Operational qualification</b>				
	N/A	YES	NO	
1. Analyzer visual check <i>All parts are undamaged</i> Comments:		<input type="checkbox"/>	<input type="checkbox"/>	
2. If applicable, install the electrodes. <i>For more information about electrodes, refer to <a href="#">Installing ECM unit</a> on page 17.</i> Comments:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. System powered up <i>Analyzer and workstation gets power</i> Comments:		<input type="checkbox"/>	<input type="checkbox"/>	
4. Reagent disk cooling * set to ON/OFF configuration/analyzer <i>ON = default OFF = cooling disconnected</i> Comments:		<input type="checkbox"/> ON	<input type="checkbox"/> OFF	
5. Probe(s) and mixer position check done		<input type="checkbox"/>	<input type="checkbox"/>	

PART 3: Operational qualification	N/A	YES	NO
<i>For more information about adjustment instructions, refer to Service Manual.</i>			
<i>Comments:</i>			
6. Adjustments saved to hard disk		<input type="checkbox"/>	<input type="checkbox"/>
<i>Only for service use. The latest adjustments must always also be backed up on the USB flash drive. Do not take this USB flash drive to any other use. It is recommended to store this inside the analyzer.</i>			
<i>Comments:</i>			
7. Printer and UPS tested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>			
8. Check filters		<input type="checkbox"/>	<input type="checkbox"/>
<i>For more information about filters, refer to <a href="#">Checking filter set</a> on page 15. Check the wavelengths of the filters placed on the wheel (location under the main cover in the upper left corner).</i>			
<i>Comments:</i>			
9. Barcode check digit in use		<input type="checkbox"/>	<input type="checkbox"/>
<i>It is strongly recommended that the laboratory employs check digits (CLSI AUTO02-A2) for ensuring the integrity of the sample identification process.</i>			
Barcode setup discussed with applications and all implications/limitations explained			
<i>Comments:</i>			
10. Temperature settings	<input type="checkbox"/> As default <input type="checkbox"/> Set as (°C):		
<i>For more information about configuration instructions, refer to Service Manual.</i>			
<i>Comments:</i>			
11. Connection to LIS		<input type="checkbox"/> ASTM protocol	
<i>For more information about LIS connection, refer to the LIS Interface manual.</i>			
<i>Comments:</i>			
12. Operational testing with the qualification kit (ordering code: 981704) passed		<input type="checkbox"/>	<input type="checkbox"/>
<i>Performed by trained service engineer. Follow the kit instructions.</i>			
Results attached as appendices to the distributor's copy of the IQ/OQ/PQ form.			
<i>Comments:</i>			
13. Activate clot detection.		<input type="checkbox"/>	<input type="checkbox"/>
<i>Clot detection is off by default. Turn on clot detection by customer request.</i>			
Operational testing with the clot detection kit (981902) passed.			
<i>Comments:</i>			
14. Configurations for the laboratory done		<input type="checkbox"/>	<input type="checkbox"/>

**Appendix**

PART 3: Operational qualification	N/A	YES	NO
-----------------------------------	-----	-----	----

The system view (F5) / Configuration tab: Laboratory/Language selection, Filter, Reports, Analyzer/Analyzer type:  
Plus.

Comments:

15. Archive prepared for use	<input type="checkbox"/>	<input type="checkbox"/>	
------------------------------	--------------------------	--------------------------	--

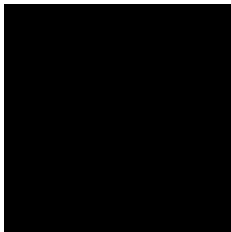
1. Delete the archive: F2 > **Archive** and click **Delete**.
2. Take the archive in use: F5 > Configuration > Laboratory > **Sample results archived: YES**.  
Otherwise test results are deleted every time when the **Clear daily files** operation is performed.

Comments:

16. Warranty Information Document filled out and sent to the manufacturer.	<input type="checkbox"/>	<input type="checkbox"/>	
----------------------------------------------------------------------------	--------------------------	--------------------------	--

Choose one of the following options:

- Use the QR code
- go to <http://survey.clicktools.com/app/survey/go.jsp?iv=1o99tfv0uoqbs>
- scan and e-mail to system.support.fi@thermofisher.com



**Approved by:**

<b>Customer's name:</b>	Place:	Date:	Signature:	Comments:
-------------------------	--------	-------	------------	-----------

<b>Vendor rep.'s name:</b>	Place:	Date:	Signature:	Comments:
----------------------------	--------	-------	------------	-----------

If something is not working correctly, copy this document and contact to your local vendor. If there is a problem with the analyzer, the engineer carrying out the installation will resolve any issue during the installation.

PART 4: Operational qualification / user training	YES	NO
---------------------------------------------------	-----	----

Topics to be covered	YES	NO
----------------------	-----	----

1. Overview of the main parts of the analyzer	<input type="checkbox"/>	<input type="checkbox"/>	
-----------------------------------------------	--------------------------	--------------------------	--

Comments:

2. Learning the daily use of analyzer	<input type="checkbox"/>	<input type="checkbox"/>	
---------------------------------------	--------------------------	--------------------------	--

For more information about routine operations, refer to Operation Manual.

<b>PART 4: Operational qualification / user training</b>		
<b>Topics to be covered</b>	<b>YES</b>	<b>NO</b>
<i>Comments:</i>		
3. Presentation of the main views in the software	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>		
4. Creating and inserting new applications, in the following order		
Creating new reagents <i>Test and reagent view (F3)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Creating calibrator and control definition <i>Calibration and quality control view (F4)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Creating test definition <i>Test and reagent view (F3)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Defining calibrator values <i>Calibration and quality control view (F4)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Defining control values <i>Calibration and quality control view (F4) / Lot concentration tab</i>	<input type="checkbox"/>	<input type="checkbox"/>
Parameters to file, PDF, hard copy if the printer has been installed	<input type="checkbox"/>	<input type="checkbox"/>
Uploading parameters from file or scanned 2D barcode	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>		
5. Dilution possibilities of the software <i>Manual, automatic redilution for sample, automatic dilution from the application parameters, redilution manual request</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>		
6. Calibrations printed and/or saved to a folder to be created on the desktop	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>		
7. Test parameters printed and/or saved to a folder to be created on the desktop	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments:</i>		
8. Reports (F2 > Reports)	<input type="checkbox"/>	<input type="checkbox"/>

**Appendix**

**PART 4: Operational qualification / user training**

Topics to be covered	YES	NO
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*Comments:*

9. Error situations

Short sample	<input type="checkbox"/>	<input type="checkbox"/>
Short reagent	<input type="checkbox"/>	<input type="checkbox"/>
Short calibrator / QC	<input type="checkbox"/>	<input type="checkbox"/>
Running out of cuvettes	<input type="checkbox"/>	<input type="checkbox"/>
Running out of water	<input type="checkbox"/>	<input type="checkbox"/>
Empty waste container	<input type="checkbox"/>	<input type="checkbox"/>
Empty waste container for cuvettes	<input type="checkbox"/>	<input type="checkbox"/>
Error messages in general	<input type="checkbox"/>	<input type="checkbox"/>
Error reporting tool	<input type="checkbox"/>	<input type="checkbox"/>

*Comments:*

10. Preventive maintenance procedures

Daily	<input type="checkbox"/>	<input type="checkbox"/>
Weekly	<input type="checkbox"/>	<input type="checkbox"/>
Monthly	<input type="checkbox"/>	<input type="checkbox"/>

*Comments:*

11. Safety procedures, for example,

User safety: Microbiological contamination from the dispensing probe	<input type="checkbox"/>	<input type="checkbox"/>
Laboratory safety: Disposal of all wastes according to laboratory procedure	<input type="checkbox"/>	<input type="checkbox"/>
Analyzer material safety	<input type="checkbox"/>	<input type="checkbox"/>

*Comments:*

12. Additional general instructions to be covered

Online help	<input type="checkbox"/>	<input type="checkbox"/>
Log on/ Log off	<input type="checkbox"/>	<input type="checkbox"/>
Clear daily files	<input type="checkbox"/>	<input type="checkbox"/>



**PART 4: Operational qualification / user training**

Topics to be covered	YES	NO
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Exit the software	<input type="checkbox"/>	<input type="checkbox"/>
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Comments:

Approved by:

Customer's name:	Place:	Date:	Signature:	Comments:
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Vendor rep.'s name:	Place:	Date:	Signature:	Comments:
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**PART 5: Operational qualification**

Name of the people trained	Signature
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*User training course during the installation period*

Laboratory manager:

Users:

**PART 6: Warranty information document**

<b>WARRANTY INFORMATION DOCUMENT</b>	
<p>This protocol is available as an Online version.                      Use QR code or visit our support desk at  <a href="http://survey.clicktools.com/app/survey/go.jsp?iv=1o99tfv0uoqbs">http://survey.clicktools.com/app/survey/go.jsp?iv=1o99tfv0uoqbs</a>.</p> <p>Alternatively, fill out and scan this page to                      Thermo Fisher Scientific, Analyzers &amp; Automation, Finland,  <a href="mailto:system.support.fi@thermofisher.com">system.support.fi@thermofisher.com</a></p>	
<b>CUSTOMER DETAILS</b>	
Distributor:	
Name of laboratory:	Country:
<b>SYSTEM DETAILS</b>	
Analyzer serial number: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Date of installation:	Software version:
Check digit in use:                      Yes <input type="checkbox"/> No <input type="checkbox"/>	
Installation Qualification Kit (981704)    Pass <input type="checkbox"/> Fail <input type="checkbox"/>	
<b>OUT OF BOX FAILURE REPORT (if needed)</b>	
Description	Actions

# Glossary

## C

**CLRW** Clinical Laboratory Reagent Water

**CLSI** Clinical and Laboratory Standards Institute

## E

**ECM** Electrochemical Measurement

## G

**GLP** Good Laboratory Practices

## I

**ID** Identification

## L

**LIS** Laboratory Information System

## Q

**QC** Quality Control

## S

**SD** Standard Deviation

## U

**UPS** Uninterruptable Power Supply