

# QCOM3

2016-0012

## Operating Manual



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## 1 CONVENTIONS USED IN THIS MANUAL



**CAUTION:** This signal word indicates a possibly imminent danger, which can result in slight to serious injuries.



All sections / passages that are marked with this symbol describe procedures and / or conditions that could damage or lead to a malfunction of the device. Therefore, the user should pay particular attention.

## 2 SAFETY



**CAUTION:** QCOM3 is not meant to be used for any critical or production application.

## 3 PRODUCT DESCRIPTION

### 3.1 INTENDED USE

QCOM3 is a program that offers a graphical user interface (GUI) to control lab automation instruments from QINSTRUMENTS, e.g. BioShake, ColdPlate, HeatPlate, Q1.

The main purpose of QCOM3 is to get easy access to the unit to execute initial testing.

### 3.2 REQUIREMENTS

Minimal display resolution [pixel]	800 x 600
Disc space	~30 MB (+ optional log file size)
OS	Tested on Windows 10 Professional (64-Bit)
Network connection	-
User rights	Write and Read access in the installation folder
Device connection	QINSTRUMENTS device is recognized in windows device manager and a COM port is assigned to the device

## 4 INSTALLATION

Download QCOM3 zip data from the QINSTRUMENTS homepage.  
Extract the QCOM3 zip to the desired local drive.

Ensure that user has read and write access for the program folder.  
Ensure enough disc space for log files is available if logging is activated.

## 5 OPERATION

### 5.1 INTRODUCTION

To start the program, execute QCOM3.exe.

By default, the program scans through all available COM ports and detects if a supported QINSTRUMENTS device is connected to a port.

The first valid device that is found is used, the scanning process is stopped, and the program starts using the identified device.

Device features will be detected at start-up, and the GUI will be adapted to the following features: mixing, ELM, temperature control, tilt function.

At startup warnings will show up if

- the log directory size exceeds a certain value
- loading a specified configuration file is erroneous
- no device was found

### 5.2 START PARAMETER

It is not necessary to provide command line options. If no options are provided default values will be used. The QCOM3 bat file that is part of the installation can be used to set and start QCOM3 with options.

**-p <COM port number>**      example: QCOM3.exe -p com4

Use the defined com port instead of the first that is found.

**-sn <serial number>**      example: QCOM3.exe -sn 5979

Search for a device with the serial number 5979 and use that instead of the first that is found. If no device with that serial number is found the program exits.

**-c <file name>**      example: QCOM3.exe -c qcom.json

With this parameter the location and name of a configuration file can be defined. The values in the file will be used instead of the default values.

The configuration file must be formatted using the JavaScript Object Notation (JSON).

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The default configuration file should be available in the install directory. It is automatically updated with changes made in the GUI.

Parameter	Description	Unit	Default value at start-up
set_speed	Device speed	Rpm	300
set_acc	Device acceleration	Seconds	2
set_temp	Device temperature	°C	30
set_time	Device time	Seconds	60
set_pos	Initial tilt position - do not change	-	Home
set_speed_oscil	TiltStation oscillation speed	oscil/min	10
set_time_oscil	TiltStation oscillation time	oscil	10

Configuration file example:

```
{
  "set_acc": "03",
  "set_pos": "Home",
  "set_speed": "300",
  "set_speed_oscil": "10",
  "set_temp": "20.0",
  "set_time": "60",
  "set_time_oscil": "10"
}
```

If there are errors in the format of the configuration file, the default values will be used.

**-l** example: QCOM3.exe -l

With this parameter logging is activated. Two logfiles will be generated in the folder log\

- QCom\_start\_[date].log Information regarding the GUI
- pyQControl\_Kernel\_[date].log Information regarding the device communication

**-s <size number>** example: QCOM3.exe -s 2

With this parameter the size of the GUI can be set. Three size values (0, 1, 2) are supported. The higher the number the bigger the GUI. The following width and height values can be set (in pixel).

0 = 706x156            1 = 1059x234            2 = 2118x468

All options can be combined.

For example:            QCOM3.exe -p com4 -c cfg\qcom.json -l -s 2

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### 5.3 GUI DESCRIPTION

#### RUN VIEW

Version number

Run START/STOP and Information about the connected device (type, com port, serial number)

Shake | Temperature ON/OFF

Select parameter

Switch RUN / COMMAND view

Shaker status and error messages

Change value of selected parameter

Value of selected parameter

ELM OPEN/CLOSE | RESET device

#### RUN VIEW - TiltStation

Switch tilt time unit

#### COMMAND VIEW

Execute command







Entry field for command

Return value of command

Command list to select command

Switch to number keys

## SHORTCUTS

	Insert digit value
	Increase/Decrease value of digit
	Move to left/right digit of selected parameter
	Move to left/right parameter
	Move to left/right parameter digit
	Move to right parameter digit

## 6 WARRANTY

QINSTRUMENTS warrants products manufactured by it to be free from defects in material or workmanship under normal use and service for a period of 2 years from date of shipment.

This warranty is specifically limited to the replacement or repair of any such warrantable defects, without charge, when the complete product is returned to QINSTRUMENTS, freight prepaid, at the address shown above. Contact the factory at the address above for a Return Material Authorization (RMA) number before returning the product.

QINSTRUMENTS shall be the sole judge of the warrant ability of alleged product defects. Products that are returned for warranty examination and that are found to be non-warrantable are chargeable and are returned freight collect. A copy of a purchase order with the amount of the charge must be received by QINSTRUMENTS, either by mail or by FAX, before any equipment is returned. Warrantable products are repaired or replaced at no charge and returned freight prepaid.

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The buyer acknowledges that he / she is not relying on the seller's skill or judgment to select or furnish goods suitable for any particular purpose and that there are no warranties that extend beyond the description on the face hereof.

This warranty extends only to the original purchaser and shall not apply to any products or parts that have been subject to misuse, neglect, accident, or abnormal conditions or operations. Claims for damage in transit are directed to the freight carrier upon receipt.

QINSTRUMENTS will only accept parts / devices for return that do not pose a threat to the health of our staff. In particular, the devices may not have been used in Biosafety Level 3 and 4 environments or have been exposed to radioactive or radiation materials. Such devices will not be accepted by QINSTRUMENTS for return.



Please use the online form for registration of your appliance and service:

Your completed data will serve as registered certificate of guarantee for our extended guaranteeing and will assure optimal service.

Please keep your sales slip for a possible warranty case which must be presented then. Your personal data will not be given to third persons

## 7 SUPPORT

We provide a range of technical material (e.g., application notes, poster, bulletin, data sheets) that describes our products and key applications in detail. All of our technical documents are available on our web page in the corresponding product pages. Technical Data Sheet, Operation manual, 2D and 3D drawings and Software can be found in the download area of each product.

Please use the following link to our support form in case service or support for your product is needed. Please ensure to provide the serial number, as it is an important information for our support team. Direct contact via phone or email is also possible.

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QINSTRUMENTS is owner of numerous patents worldwide. Please respect our intellectual property.

**WO2008135565, US8323588, EP2144716:** Sample handling device for and methods of handling a sample

**WO2011113858, US9126162, EP2547431:** Positioning unit for a functional unit

**WO2013113847, US10052598, EP2809436:** Cog-based mechanism for generating an orbital shaking motion

**WO2013113849, US9371889, EP2809435:** Mechanism for generating an orbital motion or a rotation motion by inverting a drive direction of a drive unit

**WO2014207243, US20160368003, EP3013480:** Application-specific sample processing by modules surrounding a rotor mechanism for sample mixing and sample separation

**WO002022128814A1:** Laboratory apparatus comprising a fixing mechanism for fixing a slide

**WO002022128809A2:** Laboratory apparatus comprising a mixing mechanism for mixing a medium of a slide

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