SINGER INSTRUMENTS
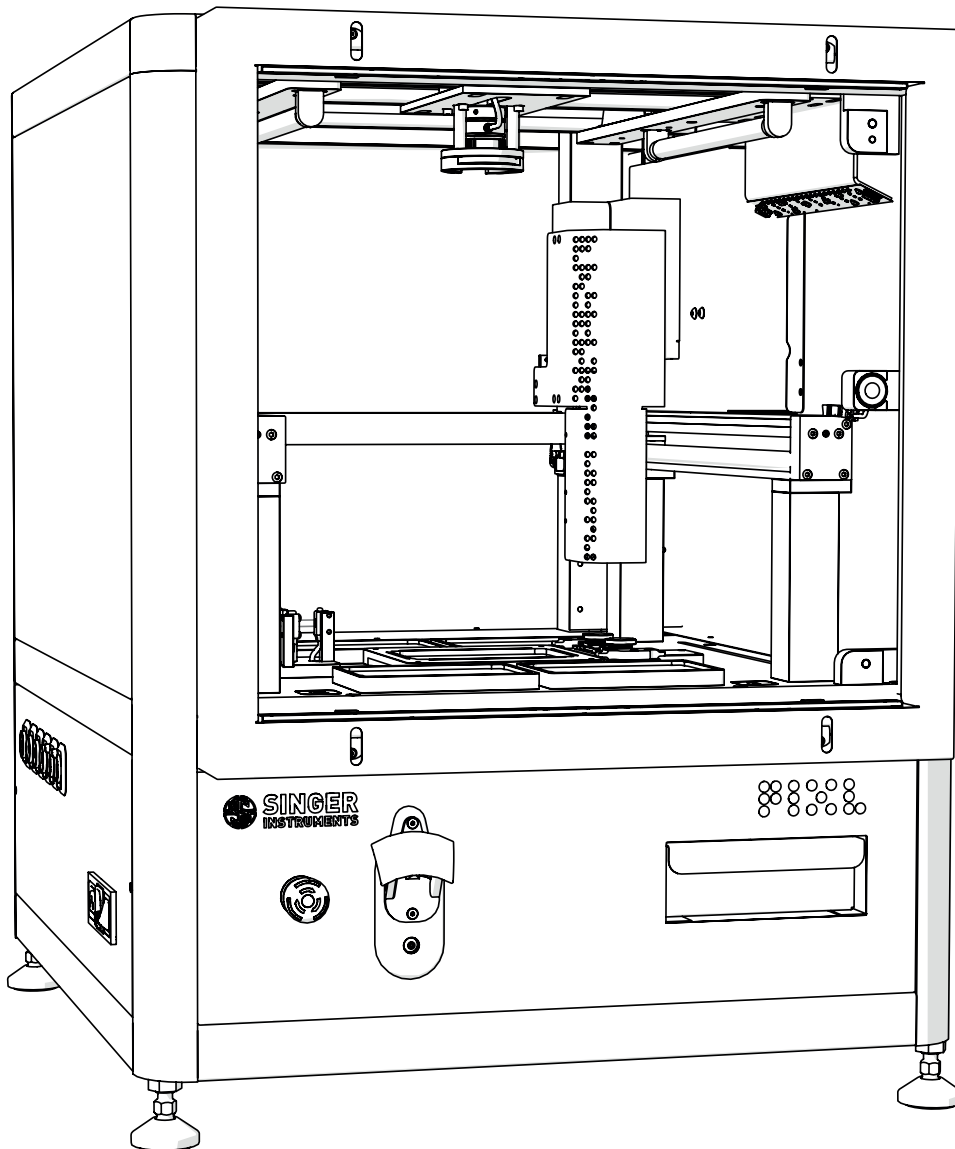## A RESPONSIBILITY TO SCIENCE!

PIXL

LIGHT CURTAIN

QUICK START GUIDE   v1.2

For more support
resources visit
bit.ly/PIXLhelp

· **The blade is sharp!** Be careful when handling the PIXL blade. Always follow the instructions on page 42 when changing blades.

· **Hand feed the PickupLine™ carefully.** When feeding a PickupLine™ into the machine, if you feel resistance, pull back slightly and re-feed. Forcing the PickupLine™ through will cause damage to the machine.

· **Remove lids when placing plates into the PIXL.** Lids need to be manually removed. Failure to do so will cause damage to the picking arm.

· **The nozzle is hot!** Be careful when removing the nozzle as it can get quite hot.

· **The feed button is disabled.** The feed button is disabled on all PIXL machines. The retract button is fully functional during the change PickupLine maintenance routine.

· **Light curtain.** The light curtain PIXL is sold without a door to allow access for robotic arms and 3rd party integrations. The light curtain is a safety feature that will stop any potentially dangerous moving components if the beam is broken. UV sterilisation is disabled on Light curtain PIXLs as there is no physical barrier between the UV bulbs and the user. Do not attempt to tamper with or override the light curtain sensors. Please report any faults with the light curtain, or any of the safety mechanisms immediately to your technical support team.

· **Do not use >2% agar when using agar piercing.** Agar piercing allows the PickupLine tip to pierce the surface of the agar. Using >2% will reduce effectiveness of this feature.

Join our Discovery community and help us to make the product features YOU want.

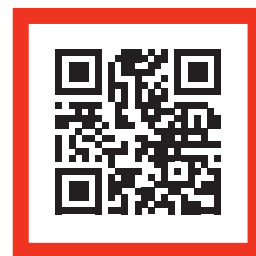**bit.ly/CustomerDisco**

JOIN OUR DISCOVERY COMMUNITY!

Join our Discovery community and help us to make the product features YOU want.

The Discovery Community is a group of scientists helping us to understand and solve anything causing frustration in their lab.

Help us to shape product development and have a say in future product updates. You'll also get early access to new features and be able to test things before release.

We'll even throw in some cheeky vouchers, Singer discounts and maybe even some cake!

Scan the QR Code or visit bit.ly/CustomerDisco to join.

bit.ly/CustomerDisco

A NOTE ON INSTALLATIONS

We are starting to perform in-person installations again! But for those we cant make it to, never fear! To get you up and running as quickly as possible we have instead included detailed instruction on how to self-install the PIXL (see page 12). We ask that you contact our Tech Support Team to let them know when you're planning to perform the self-installation so they can be on hand should you require any assistance: *technicalsupport@singerinstruments.com*

Once the installation is complete, please fill-in the online Self-Installation Form: *http://bit.ly/Selfinstallation*
You will be asked to create an account before you start. You can also use this form to report any issues encountered during installation.

NOTE: Completion of this form will activate the start of your warranty period. Failure to complete the form may affect the support we are able to offer during the warranty period.

Thanks for being awesome!

PIXL™

INTRODUCTION
An ultra-reliable and super-easy-to-use microbial colony picker. It automates imaging, colony recognition, colony selection, and picking; from Petri dishes to multiwell plates.

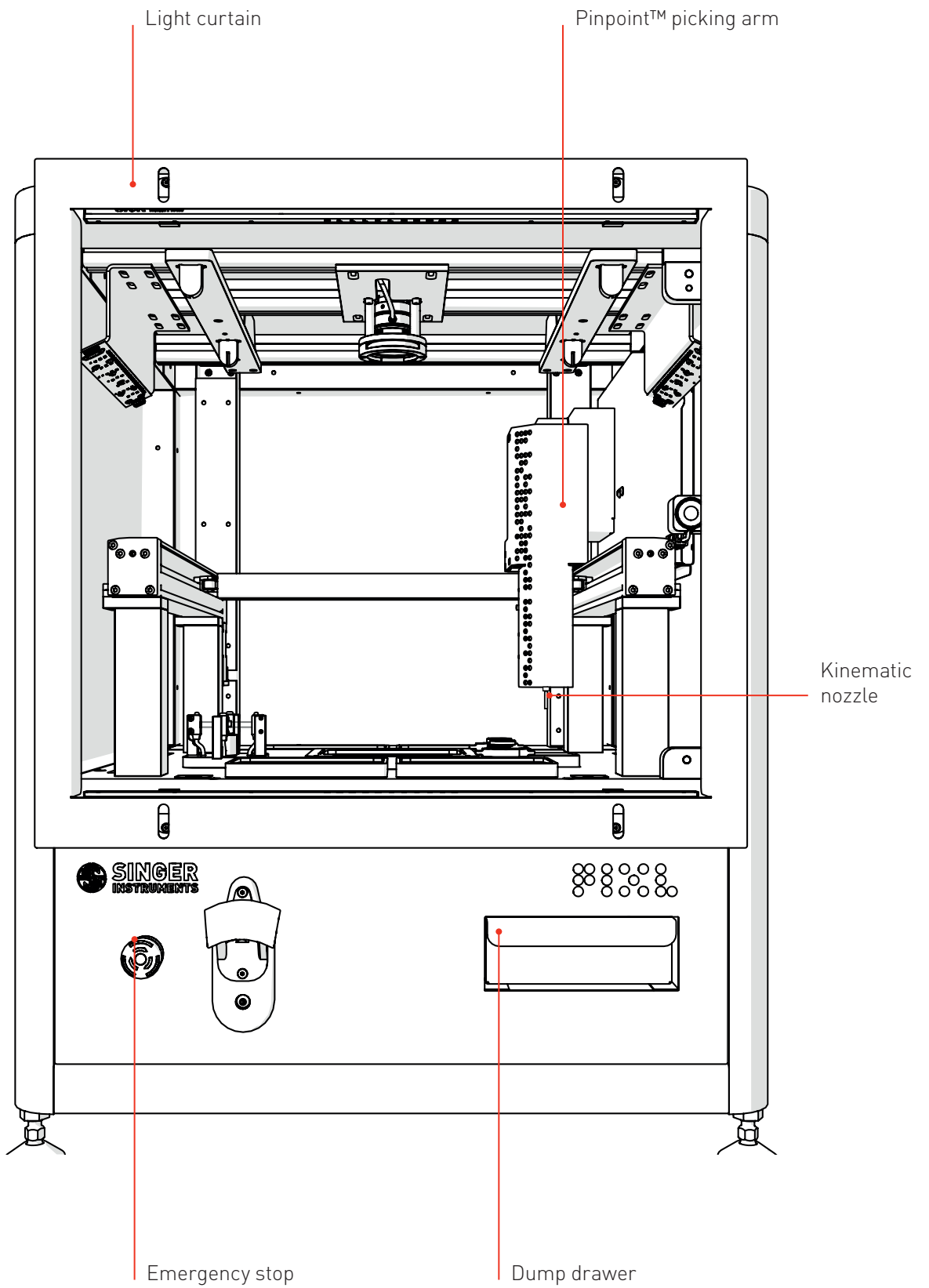The information in this guide relates to software version: 3.24.0304.1
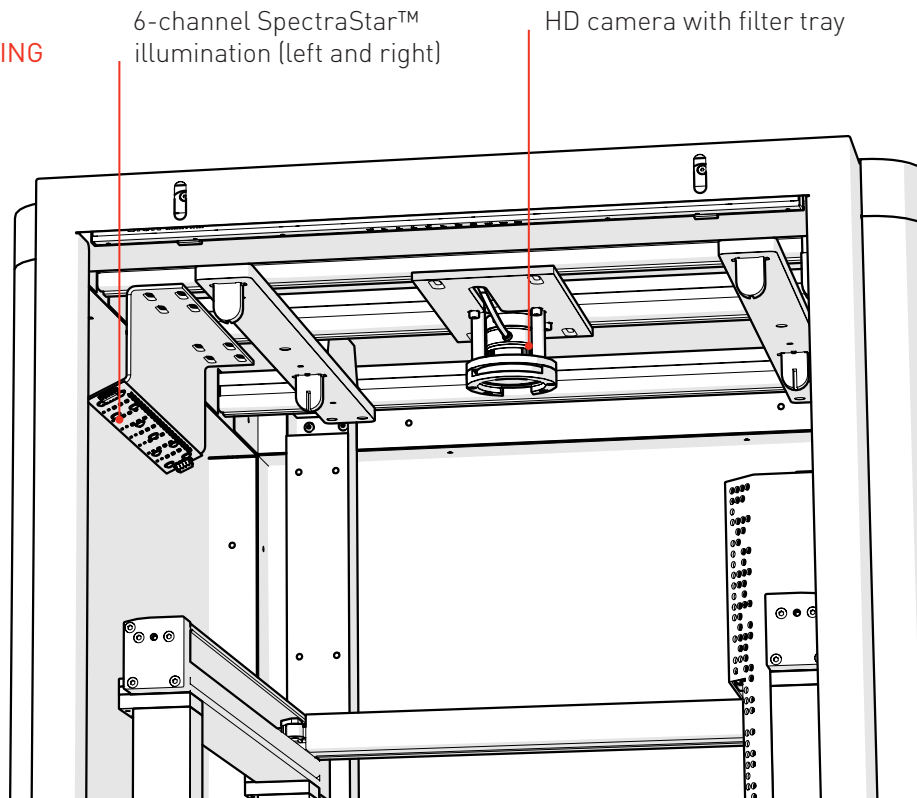
FULL USER GUIDE AVAILABLE HERE:

bit.ly/PIXLguide

FRONT

Light curtain

Pinpoint™ picking arm

Kinematic nozzle

SINGER INSTRUMENTS

Emergency stop

Dump drawer

CAMERA & LIGHTING

6-channel SpectraStar™ illumination (left and right)

HD camera with filter tray

PLATE BAYS

4 x Target bays

Anvil*

Blade*

*The Anvil and Blade together are referred to as the Cleaver

Nozzle calibration sensor

Removable source bay

Colour-coded bay labels
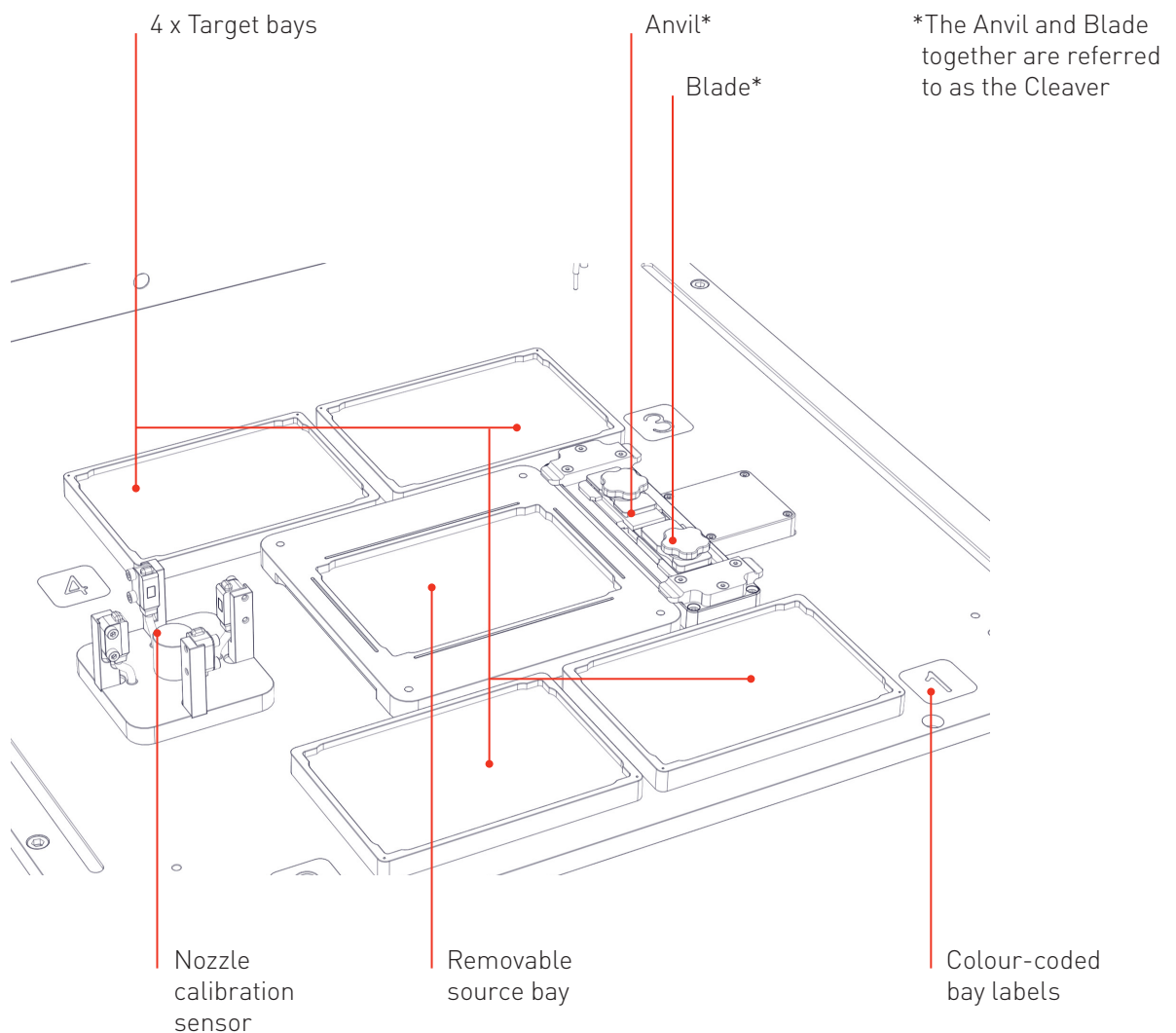
ANATOMY & FEATURES

RIGHT

PickupLine™
compartment
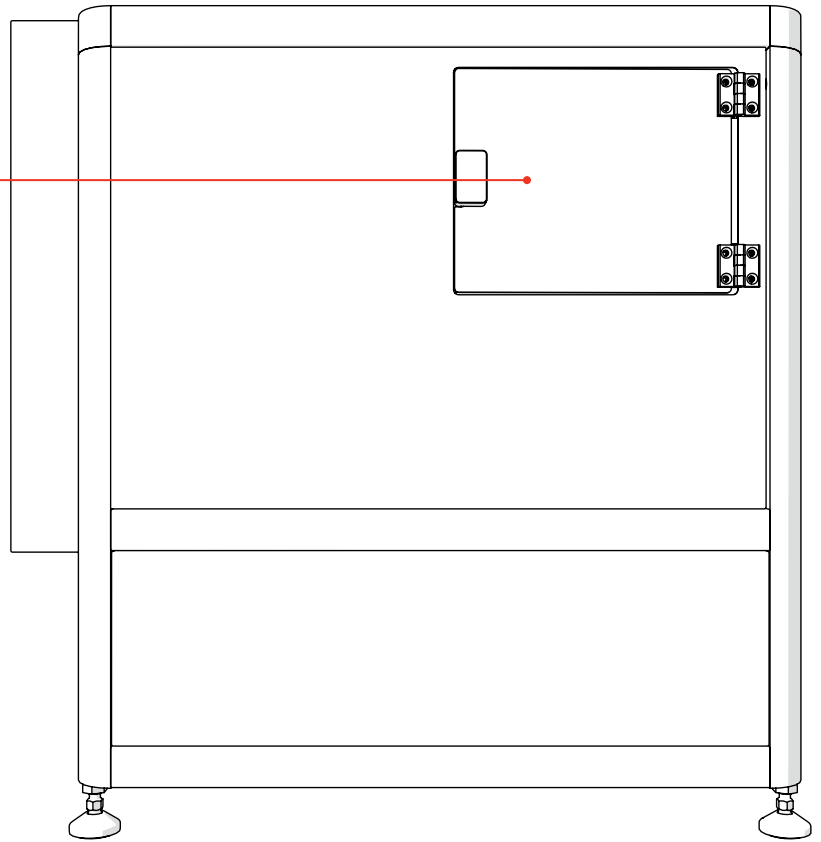
LEFT

Connections:
1 x HDMI
1 x USB 3.0
2 x USB 2.0
2 x RJ45

Power switch

PICKUPLINE™ COMPARTMENT

Reel backing plates

Spring catch

Entry guide

Tension lever

Reel cover cap

Disabled button

PickupLine™ retract button

PickupLine™ reel

ACCESSORIES

Dell 22 Monitor:
P2219H

Dump
drawer

Barcode scanner
(optional extra)

BARCODE
SCANNER

UNDER BLACKOUT SCREEN

Kinematic nozzle
(plus optional extras)

1x 2mm, 2x 2.5mm, 1x
3mm & 1x 4mm hex keys

Ethernet cable

PickupLine™

Power cable

Anvil &
Blade

KEYBOARD

MOUSE

Mouse

PlusPlate
source bay

Camera filters
(optional extra)

Keyboard

150mm petri
source bay
(optional extra)

2 x UV bulbs

90mm petri
source bay
(optional extra)

SOFTWARE

Go to home screen

Previous stage

Stage objective

Current stage

Project stages

Next stage

SELECT SOURCE PLATE

Home

Back

Source

Locate

Target

PIXL

Load Source Plate

PlusPlate

SBS Tray

Petri Dish

Square

Info

Sector

Options

Dimensions

Edit

Help

Settings

Off

Selection options

Current selection title

Live preview
of selection

Power
options

Summary of
current project

Software
settings

Edit
menu

Help
menu

Editable options for
current stage

1

· Remove *Packing Crate Side Panels* and locking nuts (1).
· Carefully lift the PIXL and Place on a sturdy desk (2).
· HEAVY: Minimum of 4 people recommended

2
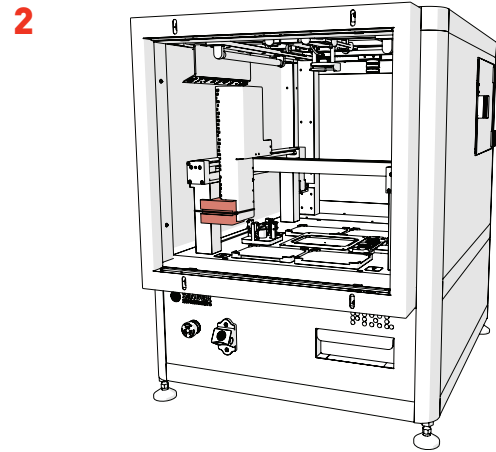
· To remove the *Red Transit Bracket* follow steps 3 and 4 below.

3
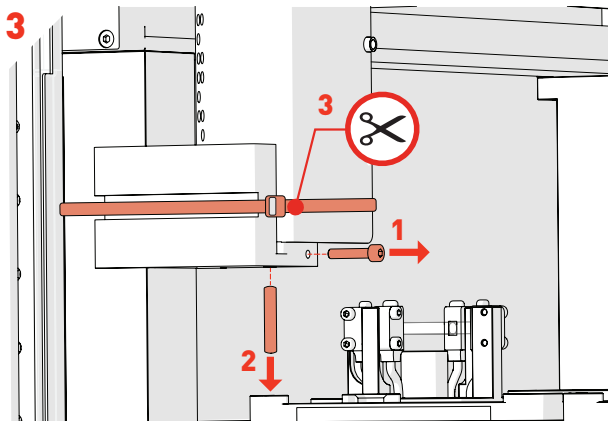
· Use *2mm Hex Key* to undo *Front Screw* (1), then remove *Securing Rod* (2). Cut the cable tie securing the floating head transit bracket with a pair of scissors (3).

4
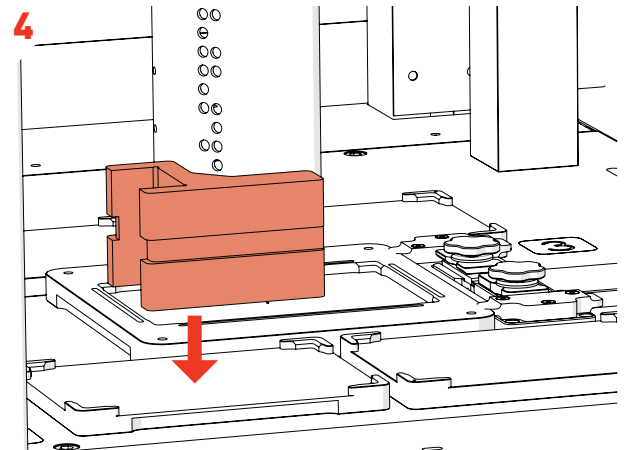
· Position the floating head in the middle of the machine and remove the transit bracket.

5
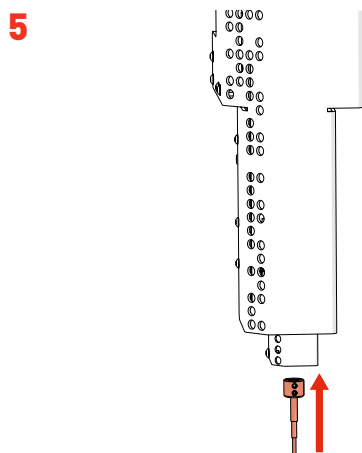
· Attach the *Kinematic Nozzle* onto the securing magnetic ring.
· Ensure the screws are at the front of the nozzle.

6
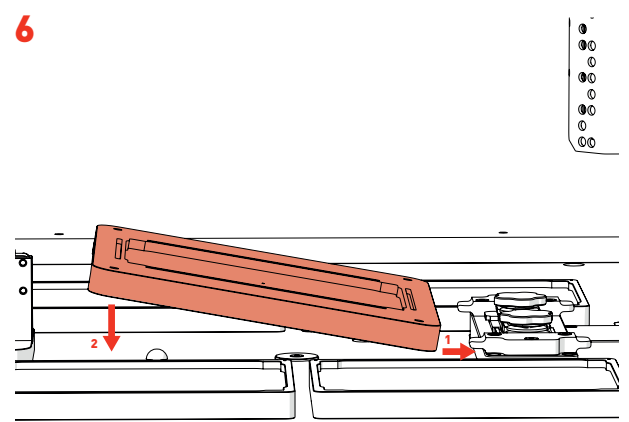
· Install the *Source Bay* by sliding the right side under the *Cleaver Tabs*, then lowering the left side onto the magnetic base.

7
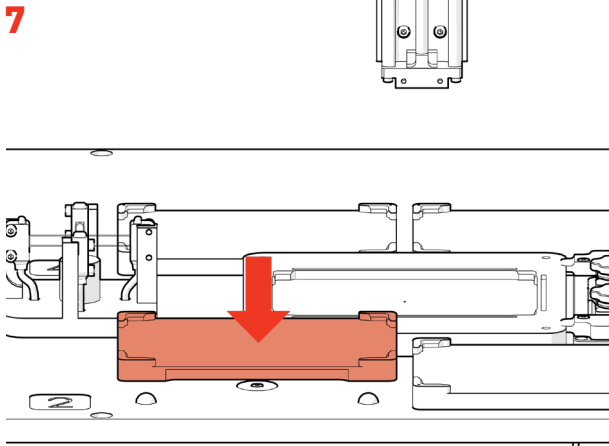
· If you have a Maldi compatible PIXL, install the removeable target bay in the Bay 2 position.
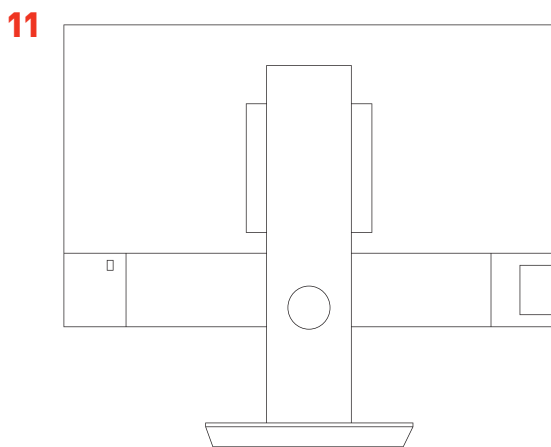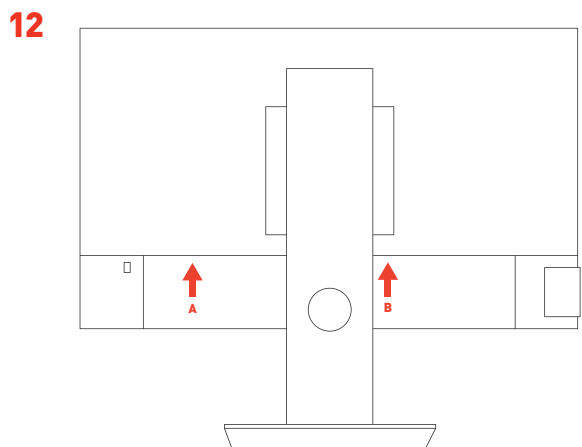
8
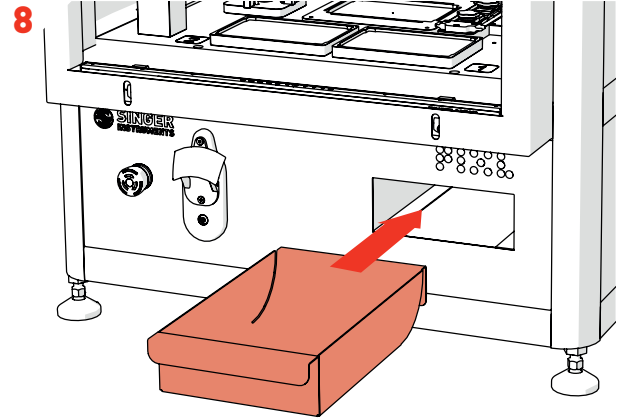
· Ensure the *Dump Drawer* is installed.

9
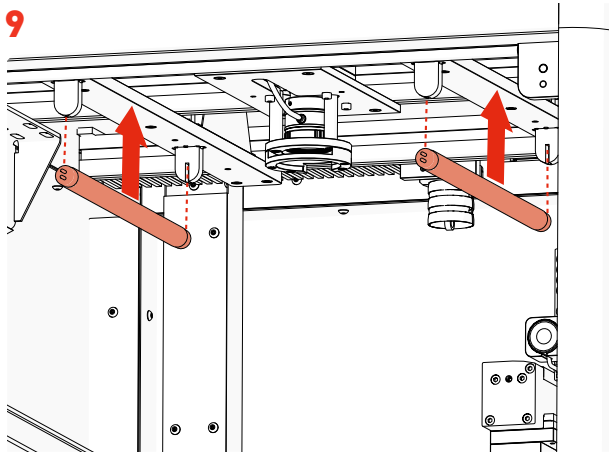
· Remove the 2 *UV Bulbs* from their protective box and slide between the *UV Sockets* attached to the roof of the main cabinet.
· NOTE: Wear gloves.

10
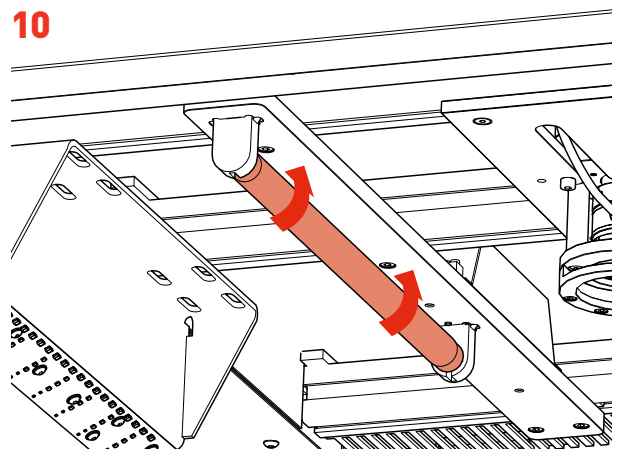
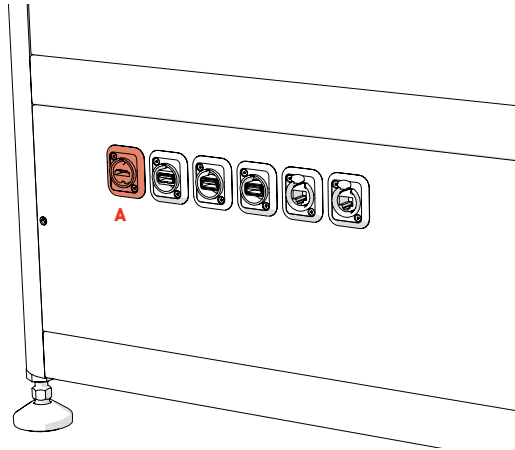· To lock into place, turn each *UV Bulb* 90 degrees in any direction until you hear a click.

11

· Set up the *Screen Stand* according to the manufacturer's instructions.

12

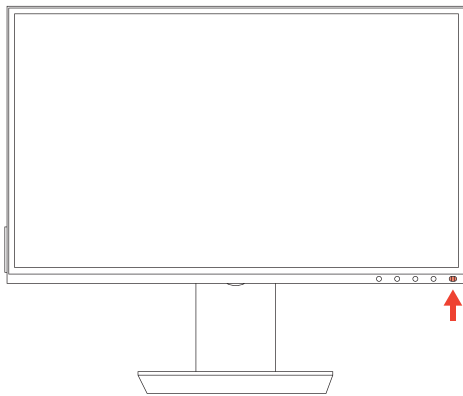· Plug in the provided Screen cables: *Power (A) and HDMI (B)*.

13

· Connect the Screen to the PIXL: *HDMI (A)*.
· *If using the Bluetooth mouse/keyboard, place the Bluetooth dongle into an available USB slot.*
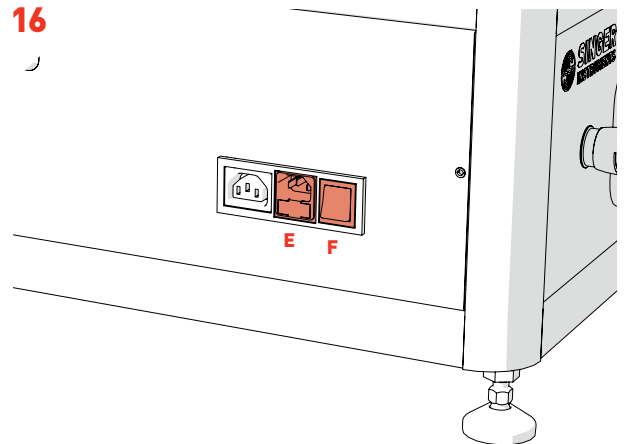
14
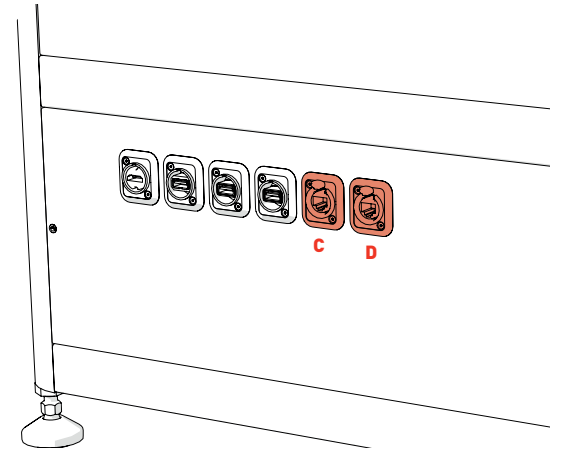
· For remote access and software upgrades, connect an *Ethernet Cable* to the right *RJ45 Socket (D)*.
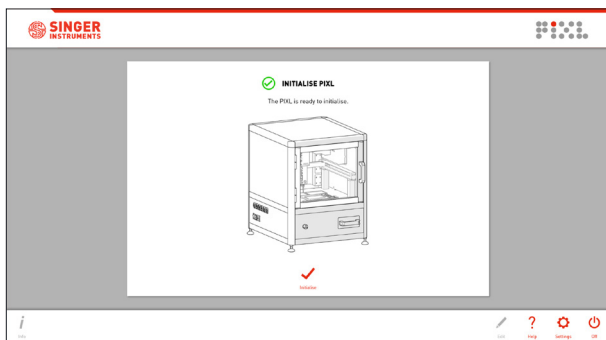· For internal network access, connect an *Ethernet Cable* to the left *RJ45 Socket (C)*.

15

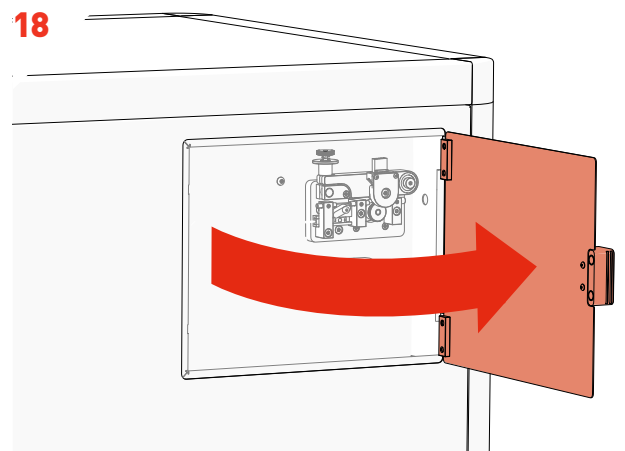· Turn on the *Screen Power Switch.*

16

· Plug in the *PIXL Power Cable (E)* and press the *Power Switch (F)*.
· The Screen will also turn on.

17

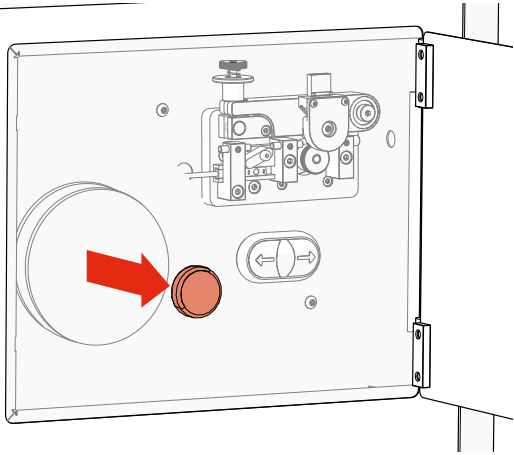· After initialising follow on-screen instructions for PickupLine™ installation.

18

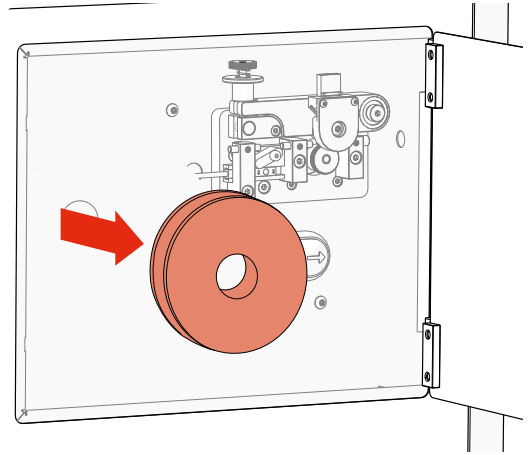

· Open the *PickupLine™ Compartment*.
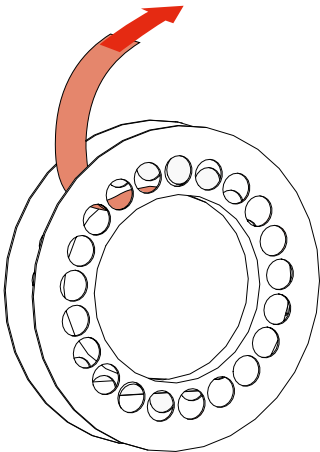
19

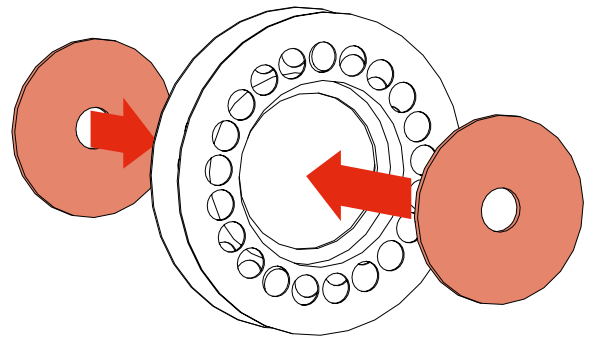· Remove the *Reel Cap Cover.*

20

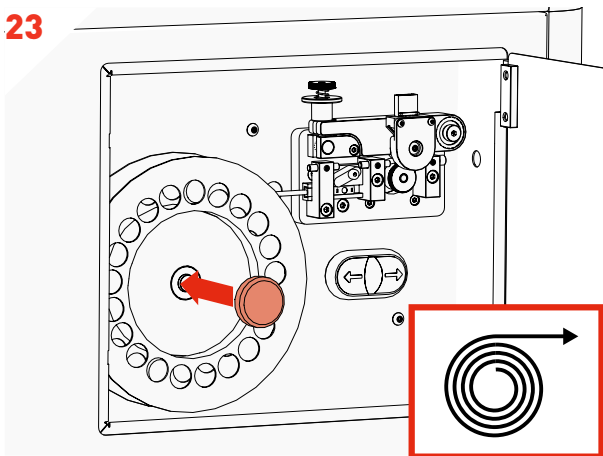
· Remove the *Reel Backing Plates.*

21

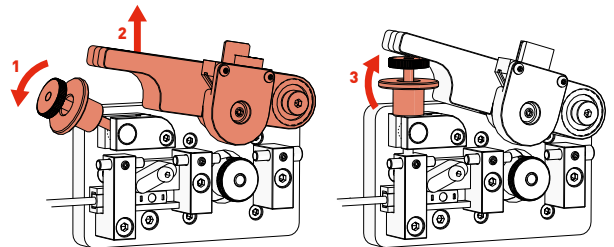· Remove the new *PickupLine™ Reel* from it's sterile packet and dispose of the *Securing Tape/Velcro.*

22

· Fit the *Reel Backing Plates* into new the *PickupLine™ Reel*.
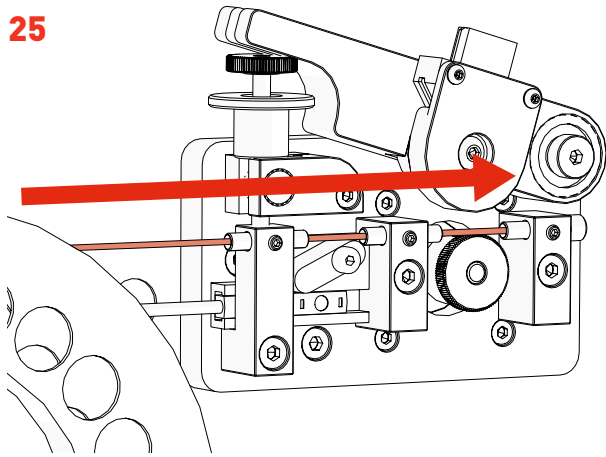
23

· Fit the new *PickupLine™ Reel* ensuring it feeds in a clockwise direction.
· Replace the *Reel Cap Cover.*

24

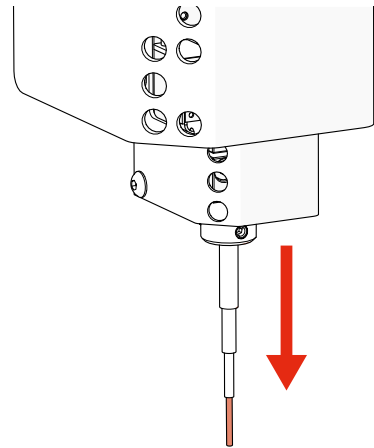· Carefully lift the *Tension Lever* and rest it on the *Spring Catch* as shown.

25

· Gently feed the *PickupLine™* by hand through the 3 *Entry Guides*. The PickupLine™ is sterilised at the nozzle but for extra sterility gloves should be worn.
· If you meet resistance, pull back slightly and re-feed.
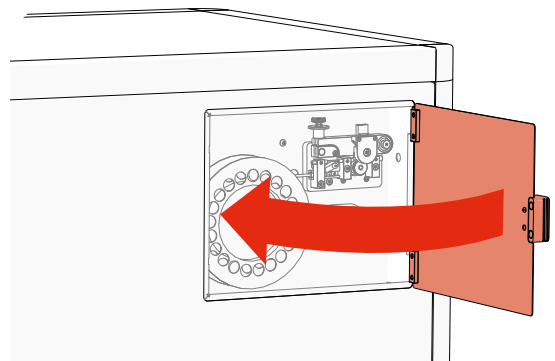
26

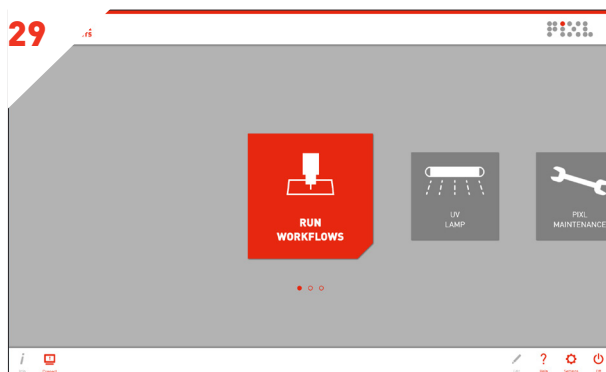· Feed the *PickupLine™* until it protrudes 10mm from the *Kinematic Nozzle*.

27
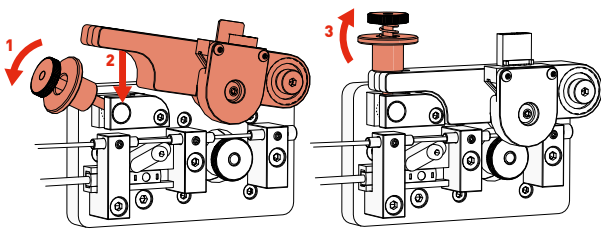
· Reset the *Tension Lever.*

28

· Close the *PickupLine™ Compartment*.

29

· Boom! You're ready to PIXL!

PROBLEM	SOLUTION
Plate guides could not be detected	Ensure that a source plate holder is installed into the PIXL.
The PickupLine™ hits the top plate as the picking arm moves between positions	Ensure that the plate dimensions in the software match that of the plate being used. If the plate type is unsupported please contact technicalsupport@singerinstruments.com and we'll make a new dimensions file for the plate.
The PIXL is missing colonies.	Ensure that the nozzle has been calibrated by running the 'Calibrate Nozzle' routine in the software. Ensure that the Detect automatically' option is selected for 'Agar Depth'.
Blades wear down quickly.	Please correctly follow instructions for changing the blade in the PIXL software.

For more support resources visit
bit.ly/PIXLhelp

NOTES

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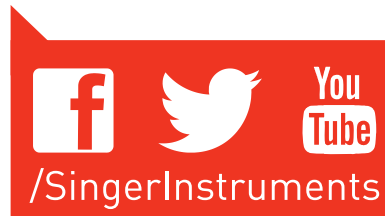
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contact@singerinstruments.com
singerinstruments.com

SCAN TO VISIT WEBSITE FOR MORE HELPFUL TIPS AND TUTORIALS!

/SingerInstruments

DISCLAIMER

At Singer Instruments, we are constantly seeking to improve our products and adapt them to the requirements of modern research techniques and testing methods. This involves modification to the mechanical structure and optical design of our instruments. Therefore, all descriptions and illustrations in this user guide, including all specifications are subject to change without notice.