



## OPTIONS

SPECIAL OPTIONS ARE AVAILABLE WITH MALDITRACE

### > LASER POINTER DRIVEN PICKING STATION

When MALDItrace™ is connected to an Image Recording system (e.g. WASPLab™) it is possible to use the laser pointer to indicate on each incubated plate the pre-selected colonies to be picked up and spotted



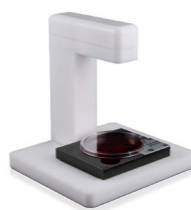
### > LASER POINTER DRIVEN TRANSFER SYSTEM

With this tool MALDItrace™ is able to drive the technician in order to properly transfer a determined quantity of material from one well to another one located in a different target plate (Molecular, Genetics).



### > HD CAMERA RECORDING SYSTEM

Image/Video recording for manual picking operations (for traceability purposes).



KW14A Rev.01 Date 2013.03



ORGANISM IDENTIFICATION TESTS IN THE LABORATORY

MOTION ASSISTING LASER DRIVEN INSTRUMENT FOR SAMPLE PREPARATION TRACEABILITY



MALDItrace™

## WHAT IS MALDItrace™

MALDItrace™ is an ergonomically designed workstation allowing laboratory personnel to keep track of culture isolates that are seeded directly on to target spots or to choose the specific target spot where the isolate will be seeded. MALDItrace™ is compatible for use under laminar flow cabinets and is provided with a user friendly Touch-Screen Monitor and barcode scanner.

Using RFID technology, data on the identification test to be performed, which is scanned from the culture plate barcode, is combined and tracked with coordinates of each spot on the target plate in the RFID chip. The chip is implanted into a unique holder, made of a special plastic material for the target plate. When seeding of the ID tests is completed, the RFID data is transferred to the Identification instrument to combine this information with the identification test results or any supported platform used.

A laser tracking system for visual guidance of the target plate seeding is included. This system illuminates the precise seeding spot on the target plate for each test. Using the touch screen monitor, the operator can manually select the location of the spot they want to seed on the target plate, or MALDItrace™ software can automatically designate each target spot to be seeded.

## > COMPONENTS

- 1 ERGONOMIC SPOT SEEDING STATION WITH LASER POINTER
- 2 MALDITRACE™ SOFTWARE
- 3 PC PLATFORM WITH TOUCH SCREEN ALL-IN-ONE
- 4 BAR CODE SCANNER
- 5 TARGET PLATE HOLDER WITH EMBEDDED RFID CHIP

The Software allows for target management, target configuration, connection to the LIS (if integrated with the UIC™ LIS middleware) monitoring of culture isolates directly deposited on the target spots, the creation of worksheets, and subsequent RFID registration and data transmission to the Analyzer.



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## THE RFID DOCKING STATION/TARGET HOLDER

THE RFID DOCKING STATION IS AN ERGONOMIC COMPONENT TO HOLD AND SECURE THE TARGET PLATES.

### > ADVANTAGES

- 1 Avoids direct contact with the Target Plate after the spotting of wells
- 2 Saves the target matrix (24, 48, 96 and more wells)
- 3 Traces activities (audit trail)
- 4 Stores the target's ID (Serial Number or barcode ID or other description data)

- 5 Downloads and uploads demographic data into different systems
- 6 Downloads and uploads analyte and colony IDs into different systems
- 7 Fully integrates MALDI-Prep™ and WASPLab™ Automations

MALDItrace™ may work using the network connection (wired or wireless). In this case the Analyzer Instrument must be connected at the same network and reachable by the MALDItrace™ PC.

### > HIGHLIGHTS

- > Adjusting Laser Timing and Positioning behaviour
- > Control organisms' definition
- > Fixing matrix driven procedure
- > Multiple platform customization
- > Full pre-loaded Target's Library
- > 2D Datamatrix barcodes supported
- > Image recording connections supported
- > LIS Connection available
- > Fully integrated with SYNAPSEPro™ Application
- > Encrypted data logging

## HOW IT WORKS

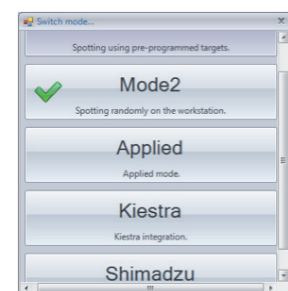
The MALDItrace™ System can work with the following functions enabled:

### MODE 1

The target is already programmed and contains the worksheet, working with any Analyzers.

### MODE 2

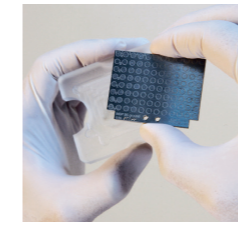
Seamless compatibility with all COPAN IT solutions. Tested compatibility with different commercial platforms from: **Life Technologies, Bruker, Shimadzu, Siemens and Kiestra**. Customizations options are also available.



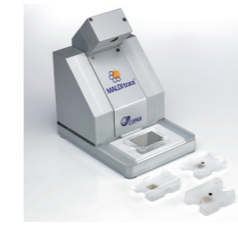
Whatever mode you are using, the MALDItrace™ system has been created to eliminate potential technician related errors, reduce unnecessary time-consumption, and to guarantee an organism's accurate traceability.

The general process for using MALDItrace™ System is depicted in the figures below

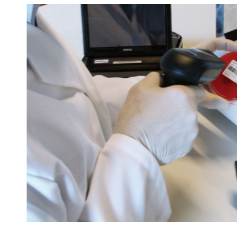
### MASS SPECTROMETRY



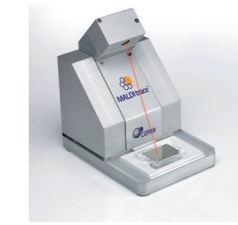
Insert MALDI-TOF Target Plate into Plexiglas Target Plate Holder which has RFID chip embedded.



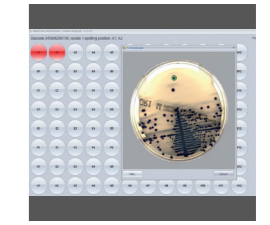
Place Target Plate Holder on the MALDI-Trace® Workstation.



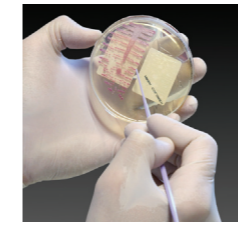
Scan barcode on culture plate.



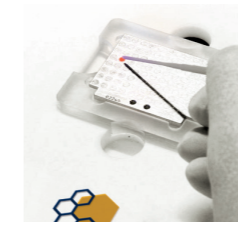
MALDI-Trace® Software automatically designates location for seeding using Laser Designator.



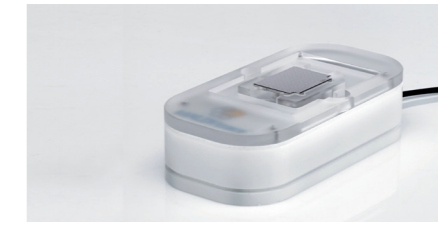
RFID chip logs the location of the test ID.



Select a colony from the culture plate.



Smear the colony on the illuminated target spot.



Once the target plate is full or panel of tests completed, remove the RFID Embedded Target Plate Holder from the MALDI-Trace® Workstation and

place it in the Decoding Platform that is connected the MALDI-TOF instrument. RFID chip downloads the coordinates of the tests into the system.

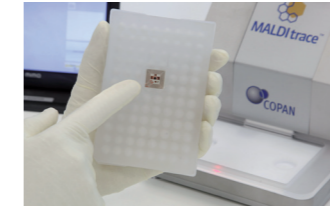


The Decoding Platform connects the RFID Embedded Target Plate Holder to the MALDI-TOF Instrument. Using the RFID chip it downloads the coordinates of the tests into the system.

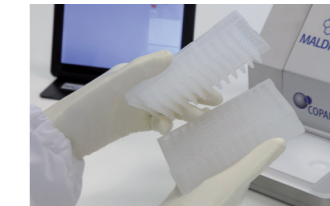
### GENETICS APPLICATIONS



Copan MALDItrace™ is a system for the traceability of biological sample spotted into a 96 well plate for DNA quantification (PCR) or DNA sequencing



The Plexiglass target plate holder contains a Radio Frequency Identification (RFID) chip



Place the 96 wells plate into the Plexiglass holder and place the holder onto the MALDItrace™ workstation



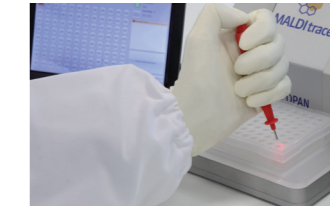
Scan the barcode of the sample (e.g. NUCLEIC-CARD™)



The MALDItrace™ software automatically designates the well location using the laser designator. The RFID chip automatically logs location of the test ID



Punch the NUCLEIC-CARD™



Spot the punch into the illuminated target well



Add the master mix into the illuminated target well



Once the 96 wells plate is full, remove the holder and place it in the decoding platform which is connected to the PCR instrument for amplification



The Data is uploaded and formatted for each specific instrument. Using the RFID chip it downloads the coordinates of the isolates into the system. Results from the analyzer are univocally and automatically matched to the original specimen position based on sample preparation.

The MALDItrace™ software automatically designates the well location using the laser designator. The RFID chip automatically logs location of the test ID. It allows target management, target configuration, monitoring of culture isolates directly deposited on the target spots, the creation of worksheets, Isolates and Matrix transfer, integration with Image Analysis systems (with optional tool for picking colonies) and subsequent RFID (or Network) registration and data sending to the Analyzers.