

BIONOVA®
CaviTest
auto-reader

Bionova® CaviTest Auto-reader

for Chemdye® CDWU and CDWU-Z Indicators



WARNING: This product contains dry natural rubber.
R02 | 06.2026

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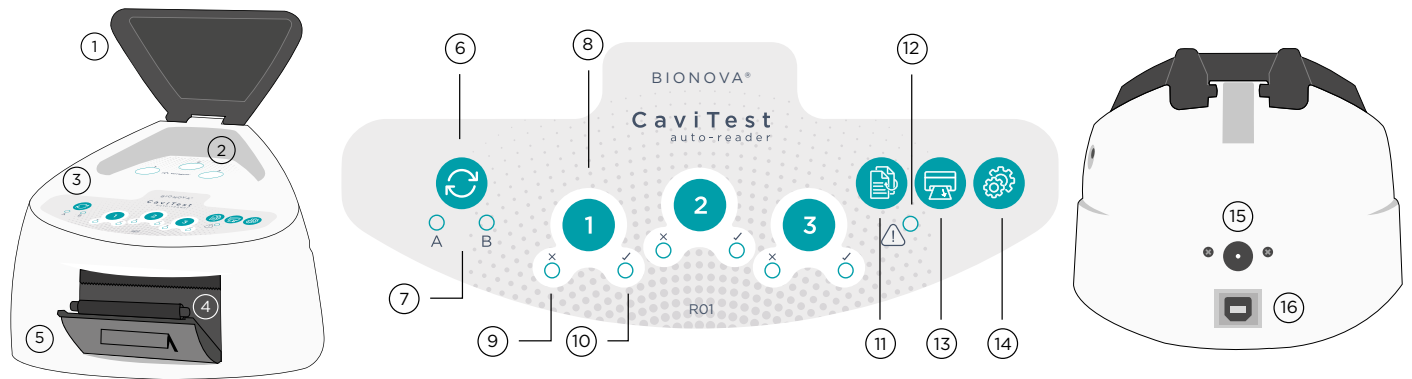
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■ Composition



Product description

The Bionova® CaviTest Auto-reader was designed for the automatic readout of Chemdye® CDWU and CDWU-Z Indicators, used for the detection of cavitation energy in ultrasonic cleaners for medical instruments.

The Bionova® CaviTest Auto-reader performs a qualitative analysis over the Chemdye® CDWU and CDWU-Z Indicators by recording the final color reached by each indicator. The auto-reader compares this color with a previously established reference color scale, allowing the determination of the cavitation energy level present in the area of the ultrasonic bath where the indicator was placed. Based on this comparison, the device automatically issues a "Pass" or "Fail" result, together with the cavitation index achieved.

The Bionova® CaviTest Auto-reader allows the readout of three independent indicators simultaneously, facilitating the parallel evaluation of multiple tests.

The auto-reader also provides a printed ticket each time an automatic readout is completed for recording the results. This allows for easy result management, for documentation compliance and record keeping.

Indications for use

The Bionova® CaviTest Auto-reader reads the Chemdye® CDWU and CDWU-Z Indicators according to the instructions prescribed in this User Manual.

Features

- ① Protective cover
- ② Readout area
- ③ Control panel
- ④ Cavity for paper
- ⑤ Thermal printer
- ⑥ Program selection button
- ⑦ Program indicator light
- ⑧ Start reading button
- ⑨ Red light / Indicator result Fail
- ⑩ Green light / Indicator result Pass
- ⑪ Reprint of results button

- ⑫ Printer paper indicator light
- ⑬ Paper traction button
- ⑭ Configuration button
- ⑮ Socket for power supply plug (12 Volts DC)
- ⑯ USB port

■ Safety information

Symbols

You may see one or more of these symbols on the packaging or labeling of this product.



Humidity limitation. Indicates the range of humidity to which the medical device can be safely exposed.



Temperature limit. Indicates the temperature limits to which the medical device can be safely exposed.



Caution. Indicates that caution is necessary when operating the device or control close to where the symbol is placed, or that the current situation needs operator awareness or operator action in order to avoid undesirable consequences.



Consult instructions for use or consult electronic instructions for use. Indicates the need for the user to consult the instructions for use.



CE mark. Indicates the product conforms to all legal requirements to be sold within the European Union/European Economic Area (EU/EEA).



Fragile, handle with care. Indicates a medical device that can be broken or damaged if not handled carefully.



Direct current. To indicate on the rating plate that the equipment is suitable for direct current only to identify relevant terminals.



For indoor use only. Indicates medical device be used indoors.



Keep away from sunlight. Indicates a medical device that needs protection from light sources.



Batch code. Indicates the manufacturer's batch code so that the batch or lot can be identified.



Manufacturer. Indicates the medical device manufacturer.



Date of manufacture. Indicates the date when the medical device was manufactured.



Country of manufacture. Indicates the country where the medical device was manufactured.



Recycle electronic equipment. DO NOT throw this unit into a municipal trash bin when this unit has reached the end of its lifetime. Please recycle.



Keep dry. Indicates a medical device that needs to be protected from moisture.



This way up. To indicate correct upright position of the transport package.



Do not stack. Indicates product should not be stacked or top loaded.



Recyclable. Indicates that the marked item or its material is part of a recovery or recycling process.



Class II equipment. To identify equipment meeting the safety requirements for Class II equipment according to IEC 61140.



Contains or presence of natural rubber latex. Indicates the presence of natural rubber or dry natural rubber latex as a material of construction within the medical or the packaging of a medical device.



Polarity of d.c. power connector. To identify the positive and negative connections (the polarity) of a d.c. power supply, or the positive and negative connections on a piece of equipment to which a d.c. power supply may be connected.

To avoid risks and/or damaging the device:

Use indoors only.

Do not place the auto-reader in a room exposed to direct sunlight or to high luminous intensity lamps.

Do not place the auto-reader near devices that emit strong electromagnetic fields.

Do not use the auto-reader on sloping surfaces or on surfaces that might be knocked, that may vibrate, be exposed to high temperatures or high relative humidity.

Disconnect the power cord before cleaning.

Do not use abrasive, corrosive cleaners or disinfectants.

Do not immerse the auto-reader into any liquid. Do not pour liquid into it.

Make sure the auto-reader is connected to an appropriate electrical mains outlet socket.

Use only the included power supply (AC power adapter), power supply's AC plug, power supply cords, and USB cable. Check that all the included items are in good condition every day. If any of them is damaged, stop using them. The use of cables, adapters, cords, and/or power supplies different from the ones included may cause fires, electrical shocks, or even physical injuries.

Do not plug any devices into the auto-reader's USB port other than a personal computer (PC). The PC must be compliant with IEC 60950-1, IEC 62368-1 or comparable, with safety extra-low voltages on its USB ports. Ask a qualified technician to check that the device is compatible. Attaching any other device to the USB port may damage the auto-reader and may not be safe for the user.

Do not attempt to repair the auto-reader yourself. This could lead to major and irreversible damages to the device. If the auto-reader malfunctions, contact your local distributor for further assistance.

To reduce the risks associated with the use of ultrasonic cavitation indicators:

Please read, understand, and follow the Instructions for Use of each Chemdye® CDWU and CDWU-Z Indicator before placing it in the auto-reader.

Do not remove the indicator before the auto-reader shows the final readout result.

Check that the indicator is not wet and that the glass beads or zirconia cylinders are evenly distributed within the tube when performing the reading.

To avoid a potentially hazardous situation:

Avoid opening or handling the Chemdye® CDWU Indicators, as they contain liquid solution and glass beads inside.

Avoid opening or handling the Chemdye® CDWU-Z Indicators, as they contain liquid solution and zirconia cylinders inside.

Do not insert your fingers, or any other element, into the readout positions of the auto-reader.

Place only Chemdye® CDWU and CDWU-Z Indicators inside the readout positions.

Note: Do not use this product other than in the manner specified by Terragene S.A., otherwise the protection provided by the product might be affected.

Note: Only Terragene S.A. authorized personnel may access or service the internal components of the auto-reader. Parts or components inside the auto-reader should not be handled by the user.

Operating conditions

Power supply specifications

Input parameters	Operating conditions	Units
Voltage range	(100-240)	AC Volts
Frequency	50/60	Hertz
Current	1	Ampere

Ouput parameters	Values	Units
Voltage	12	DC Volts
Current	3	Amperes

Terragene S.A. recommends the use of Uninterruptible Power Supply (UPS) instead of voltage stabilizers, since they fulfill two functions: To stabilize and maintain the energy during a power outage.

Environmental operating conditions

Environmental conditions	Operating conditions	Units
Altitude	3500 (max.)	Meters
Operation temperature	10-30	Celsius
Relative humidity	30-80	%
Installation/Over-voltage	Category II	
Pollution degree	2	
Storage temperature	5-40	Celsius
Voltage	12	DC Volts

Device safety compliance

The Bionova® CaviTest Auto-reader complies with the following standards and directives:

Electrical Safety	IEC 61010-1 Low Voltage Directive 2014/35/EU
Electromagnetic Compatibility (EMC)	IEC 61326-1 EMC Directive 2014/30/EU
European Commission	RoHS Directive 2011/65/EU WEEE Directive 2012/19/EU

The auto-reader does not represent photobiological risk and does not generate dangerous optical radiation if used within normal operation conditions as per the requirements of IEC 62471 standard. Designed under Quality Management System standards ISO 13485:2016/EN ISO 13485:2016.

■ Bionova® CaviTest Auto-reader program

The following readout program is available for your auto-reader:

Mode	Readout result
A	Pass/Fail

Follow the indicator's Instructions for Use before its readout.

■ Instructions for use

Note: Remember to set-up the auto-reader local date and time before starting readouts.

Start up

1. Place the auto-reader on a firm surface, free from vibrations, away from direct sunlight, hot or cold air flows, chemical and corrosive or flammable substances. Do not place the auto-reader in a way that would make it difficult to remove the power supply's AC plug from mains. Leave a space of at least 10 cm between the auto-reader and the closest wall. Do not move the auto-reader periodically or while it is being used. Connect the auto-reader to a secure and stable electrical mains outlet socket.

Note: Do not wet or heat the auto-reader. If liquid is spilled on the device, disconnect it and clean it. For more information, please refer to the following section: *Cleaning and maintenance*.

2. Switch on your auto-reader by connecting the power supply's AC plug to mains and then connect the plug at the other end of power supply to the rear of the auto-reader.

Note: Before turning it on, verify that all readout positions are empty.

Note: If the printer paper indicator light starts blinking after switching on the auto-reader, check that the printer's door is tightly closed and that the printer has paper. For more information, please refer to the following section: *Paper roll replacement*.

3. Set the auto-reader local date and time. For more information, please refer to the following sections: *Set-up mode*, *Time setting mode*.

All devices are manufactured with the following settings:

- Time zone: UTC +0:00
- Printing language: English

If you want to change the time zone or the printing language, please refer to the following section: *Set-up mode*.

4. Wait until the program indicator light stops blinking.

5. A one-time automated test will be carried out to verify the internal status of each readout position. Once the automated test has been completed, the Green light at the corresponding position will turn on to indicate that the position can be used to perform readings. Otherwise, the Red light will turn on to indicate that an error has occurred.

When the auto-reader detects an error in a position, it will print a ticket with the instructions on how to proceed. Follow the printed instructions: remove all indicators from the auto-reader, close the protective cover, and press and hold the program selection button. Wait for the device to rerun the automated test. If the auto-reader still detects an error after rerunning the automated test, that position will be disabled to guarantee the reliability of subsequent results, and no further readings will be possible.

To indicate that a position has been disabled, the Red light will blink continuously.

Note: To ensure the automated test works properly, keep the protective cover closed when it is running.

Note: A readout position will not be enabled before the automated test has been carried out successfully. Please wait until the process is completed before placing an indicator on a readout position. For more information, please refer to the following section: *Troubleshooting*.

6. Once the automated test has been completed, the readings can be initiated on any readout position if the position has not been disabled. Place a Chemdye® CDWU or CDWU-Z Indicator in the chosen position and close the protective cover. Press the start reading button to start the readout.

Note: Do not move, remove or change the indicator's placement once a reading process has begun, as it could lead to errors in the readout process. If the auto-reader does not start the readout process after pressing the start readout button, refer to the following section: *Troubleshooting*.

7. Wait until the readout has finished. The green light will turn on to indicate a pass result and the red light will turn on to indicate a fail result. If the result is invalid, both green and red lights will turn on simultaneously. For more information, please refer to the following section: *Interpreting the results*.

Note: Do not remove the indicator until the ticket with the result of the readout is printed. To save the printed ticket, pull the paper upward to cut it using the printer's serrated edge.

The auto-reader will save the last 3 readout results. For information on how to reprint the results, please refer to the following section: *Reprinting the results*.

Note: If there is no paper for ticket printing, the printer paper indicator light will start blinking. For information on how to change the paper roll, please refer to the following section: *Paper roll replacement*.

8. After a readout result is informed, remove the indicator from the readout position and wait 3 seconds for the readout position to go back to its stand-by state.

Interpreting the results

BIONOVA CAVITEST
SERIAL NUMBER: XXXX XXX
TICKET #: 000022
PROGRAM A
POSITION #
DATE: DD/MM/YY HH:MM
RESULT: FAIL
INDEX: XX

FAIL

BIONOVA CAVITEST
SERIAL NUMBER: XXXX XXX
TICKET #: 000023
PROGRAM A
POSITION #
DATE: DD/MM/YY HH:MM
RESULT: PASS
INDEX: XXX

PASS

BIONOVA CAVITEST
SERIAL NUMBER: XXXX XXX
TICKET #: 000024
PROGRAM A
POSITION #
DATE: DD/MM/YY HH:MM
RESULT: NOT VALID

NOT VALID

To indicate a Fail result, the auto-reader will turn on a red light at the corresponding readout position. A Fail result obtained when processing a Chemdye® CDWU or CDWU-Z Indicator exposed to an ultrasonic cleaning cycle indicates that, at the position in the ultrasonic bath where the indicator was placed, sufficient cavitation energy was not generated for the indicator to reach the minimum energy value required to be considered pass.

For a Chemdye® CDWU or CDWU-Z Indicator to be considered Pass, the cavitation index obtained must be equal to or greater than 100. The ticket with the result reports the value of this index. Values equal to or greater than 100 are considered pass, while values below 100 are considered fail. To indicate a Pass result, the auto-reader will turn on a green light at the corresponding readout position. If a pass result is obtained when processing a Chemdye® CDWU or CDWU-Z Indicator exposed to an ultrasonic cleaning cycle, it means that the ultrasonic cleaner generated sufficient cavitation energy for the indicator to reach this value at the position placed.

To indicate a Not valid result, the auto-reader will turn on both red and green lights simultaneously at the corresponding readout position.

A not valid result obtained when reading a CDWU or CDWU-Z indicator exposed to an ultrasonic cleaning cycle may be due to different causes. For more information, please refer to the following section: *Troubleshooting*.

Note: The auto-reader operates with a tolerance range of ± 5 cavitation index units. Consequently, when the obtained value is close to the pass threshold of 100 the result should be interpreted with caution, as the indicator may be in a borderline condition between pass and fail. In these cases, it is recommended to repeat the test using a new indicator, subjecting it to a new ultrasonic cleaning cycle and recording the value again on the auto-reader, in order to confirm that the cleaner generated sufficient cavitation energy for the indicator to reach this value at the position where it was placed.

Note: The results obtained do not indicate that the load subsequently processed in the ultrasonic cleaner is clean. The indicator's readout process provides information exclusively on the cavitation energy generated by the ultrasonic cleaner during the cleaning cycle.

Disposal

Dispose of the Chemdye® CDWU and CDWU-Z Indicators in accordance with your country's waste disposal guidelines. It is not possible to use an indicator more than once. For more information, please refer to the indicator's Instructions for Use.

Reprinting the results

The auto-reader allows reprinting of the last 3 readout results. For reprinting the results, press and hold the following button for 3 seconds: .

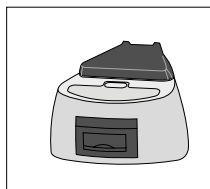
BIONOVA CAVITEST
SERIAL NUMBER: XXXX XXX
TICKET #: 0000025
REPRINT
PROGRAM A
POSITION #
DATE: DD/MM/YY HH:MM
RESULT: PASS
INDEX: XXX

Thermal paper specifications

- *Recommended paper:* JUJO AF50KSE3 or equivalent (order code ICTP Mini).
- *Paper width:* 57 mm
- *Maximum paper thickness:* 60 g/m²
- *Maximum diameter size:* 23 mm

Paper roll replacement

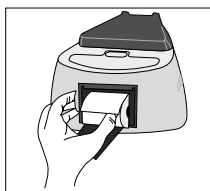
To replace the paper roll, follow the instructions listed below:



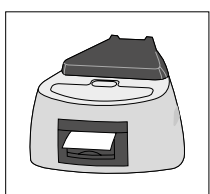
1. Pull the handle of the printer's door to open it.



2. Remove the empty roll.



3. Place the new paper roll with the outer side up.



4. Close the printer cover by pressing on the sides of the lid.

Note: To feed the paper, press the button: .

Set-up mode

The auto-reader features a set-up mode that enables you to set the printing language and the date format and time zone in the device.

To access the set-up mode, turn on the auto-reader while holding the button: . If the auto-reader has successfully entered the set-up mode, the Red and Green lights in all readout positions will turn on and a ticket will be printed.

To change the date format, time zone and printing language, please follow the instructions listed below. To exit the set-up mode, turn off the device.

Modification of date format and time zone

The date format and time zone modification function allows changing the date format and time zone of the device to suit better the local characteristics of your country.

To select the device's date format, make sure that the device is in set-up mode and press the button: .

The current date format will be printed to set a reference value and the green light corresponding to readout position 1 will start blinking.

To move back and forth between the available options, press the buttons:  or . After 2 seconds, a ticket with the selected format will be printed to set a reference. Three types of date format are available: DD/MM/YY, MM/DD/YY and YY/MM/DD.

Note: The default date format is DD/MM/YY.

To save the selected date format, press and hold the following button for 3 seconds: .

To discard the changes, turn off the auto-reader.

Once the date format has been modified and saved, the auto-reader will enter to the time zone modification mode automatically.

The current date (with the previously selected format) and the current time will be printed to set a reference.

To subtract hours, press the button: .

To add hours, press the button: .

After 2 seconds, a ticket will be printed, informing the selected time zone.

To confirm the change, press and hold the following button for 3 seconds: .

To discard the changes, turn off the auto-reader.

Note: The green light corresponding to readout position 1 will stop blinking once both, the date format and time zone modifications are saved.

Modification of printing language

This functionality allows changing the language that appears on the tickets.

To select the printed ticket's language, make sure that the auto-reader is in set-up mode and press the button: .

The current language and list of available languages will be printed to establish a reference. To move back and forth between the available options, press the buttons:  or .

After 2 seconds, a ticket will be printed informing the selected language.

To confirm the change, press and hold the following button for 3 seconds: .

To discard the changes, turn off the auto-reader.

Time setting mode

Modification of the time using Bionova® Bioupdate

1. Using the included USB cable, connect your auto-reader to a PC where Bionova® Bioupdate has been previously installed. Make sure the PC has a working internet connection.

2. Run Bionova® Bioupdate.

3. Select the auto-reader from the list and press the button: *Clock Sync*.

4. The auto-reader's internal time will be synchronized with the PC's current time and date. Wait until the software indicates that the synchronization process has been completed.

Note: The synchronization process can only be done as long as there is not an ongoing reading.

Modification of the time using Bionova® Cloud Agent

1. Using the included USB cable, connect your auto-reader to a PC where Bionova® Cloud Agent has been previously installed. Make sure the PC has a working internet connection.

2. Run Bionova® Cloud Agent.

3. Select the auto-reader from the list and press the button: *Clock Sync*.

4. The auto-reader's internal time will be synchronized with the PC's current time and date.

Note: The synchronization process can only be done as long as there is not an ongoing reading.

■ Additional features

Firmware update

The Bionova® CaviTest Auto-reader firmware can be updated with Bionova® Bioupdate. The Bionova® Bioupdate connects to the Internet to check, download, and install the latest firmware version available for your auto-reader. The update process only lasts a few seconds and is carried out without the loss of any auto-reader's data.

Please visit www.terravene.com/software to download Bionova® Bioupdate.

Update process

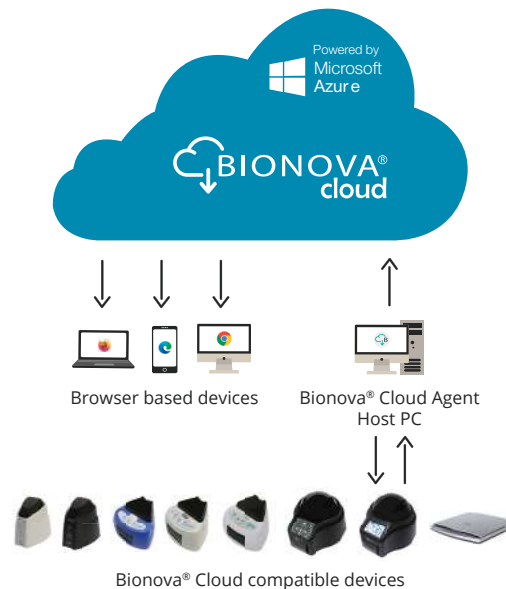
Before updating the device, make sure that the Bionova® Cloud Agent is closed. Switch off the auto-reader for five seconds. Then, switch the auto-reader back on and follow the next steps:

1. Using the included USB cable, connect your auto-reader to a PC where Bionova® Bioupdate has been previously installed. Make sure the PC has a working Internet connection.
 2. Run Bionova® Bioupdate.
 3. Select the auto-reader from the list and press the button: **Start**.
 4. Wait until the software indicates that the update process has been completed. The auto-reader will print an update confirmation ticket. If the auto-reader is already up to date, no ticket will be printed.
- Note:** It is recommended that this process be carried out once a year unless required by the manufacturer.

■ Bionova® Cloud Environment

The Bionova® Cloud environment is a Cloud based solution that integrates the information generated by Terragene® electronic devices with an easy-to-use Web App for the traceability of sterilization and disinfection control applications.

The Bionova® Cloud environment comprises two main components: The Bionova® Cloud Traceability Software which is a web-based application, and the Bionova® Cloud Agent which is a Microsoft™ Windows App that acts as an interface between the Terragene® compatible devices and the web-based application.



The Bionova® Cloud Traceability Software can be used to manage and store the readout results of CDWU and CDWU-Z Indicators in a secure and user-friendly way.

The Bionova® Cloud Traceability Software matches the information of an indicator result with the sterilizer or washing machine used, the operator, cycle characteristics, and all relevant information so each institution complies with documentation and archiving regulations.

The Bionova® Cloud Agent handles all communications with Terragene® compatible electronic devices and the Host PC where the Agent App is operated.

The Bionova® Cloud Agent then acts as an interface between the Terragene® compatible devices and the Bionova® Cloud Traceability software and sends the information generated by the devices to the

Microsoft™ Azure powered Cloud server where the Traceability Software Web App is operating and stores the information.

The user can then access to the information saved to the Cloud via any device with a compatible web browser.

To access to the Bionova® Cloud Environment please visit www.terragene.com/bionova-cloud.

For more information, refer to Bionova® Cloud User Manual.

■ Cleaning and maintenance

Cleaning and decontamination of external surfaces

Disconnect the power supply cable and the USB cable from the auto-reader.

Clean the external surfaces of the device using a microfiber cloth moistened with a solution of mild dishwashing detergent and water. Wring out the cloth so it is damp but not dripping before cleaning and wipe the outer surfaces of the auto-reader. Then, moisten a clean microfiber cloth with just water, and repeat the procedure until all traces of detergent are removed from the external surfaces of the device. After cleaning, allow the auto-reader to air dry for at least 1 hour before connecting the power supply cable or the USB cable again.

This cleaning procedure can be followed whenever considered appropriate.

This cleaning procedure must be followed each time a spill occurs on any of the external surfaces of the auto-reader.

If further cleaning is required, or if you have doubts about the cleaning agents you may use, please contact your local distributor.

Note: Do not clean the internal parts of the device.

Note: Do not pour liquid onto the device or immerse it in any liquid. Do not allow any liquid to enter the device while it is being cleaned.

Maintenance

The auto-reader does not require routine maintenance.

■ Troubleshooting

Problem: *The auto-reader will not start.*

Possible causes: The power supply is not connected.

Actions: Check that the power supply is connected to proper mains. Check that the DC plug of the power supply is connected to the rear of the auto-reader.

Problem: *The auto-reader is showing an error in a readout position during the auto-check.*

Possible causes: An indicator was placed in the readout position during the auto-check. Dust particles might be obstructing the readout mechanism.

Actions: Follow the auto-check's printed ticket instructions and remove all indicators from the auto-reader, close the protective cover, and press and hold the program selection button. Wait until the auto-reader reruns the auto-check. If the problem persists, use air to remove any dust inside a position. Do not insert solid objects. Once cleared, restart the auto-reader.

Problem: *The auto-reader disables a position and prints an auto-check error ticket without the device being restarted.*

Possible causes: During continuous operation, the auto-reader automatically verifies every 24 hours that the readout positions are within specifications.

Actions: Follow the printed ticket's instructions: remove all indicators from the auto-reader, close the protective cover, and press and hold the program selection button until the auto-check reruns.

Problem: *A readout cannot be run in a readout position (position's Red light is on).*

Possible causes: Position disabled. Error in that position during the auto-check.

Actions: Make sure that the position is empty when starting the auto-reader. Once cleared, restart the auto-reader.

Problem: *The auto-reader prints a not valid result.*

Possible causes: The internal glass beads or zirconia cylinders of the indicator are blocking the optical path to the detection sensor. No indicator is placed in the selected position for the readout.

Actions: Remove the indicator and shake it gently so the beads or cylinders settle to the bottom of the vial, ensuring the surface of the beads or cylinders remaining horizontal. Then, repeat the readout. Make sure to start the readout at the position where the indicator is placed.

Problem: *It is not possible to change date format, time zone or printing language.*

Possible causes: There is an ongoing reading.

Actions: Wait for any readout to complete and try again.

Problem: *The printer will not print (printer paper indicator light blinks quickly).*

Possible causes: The printer cover is not tightly closed. The printer is out of paper.

Actions: Check that the cover is tightly closed. Place a new paper roll following the directions on the *Paper roll replacement* section.

Problem: *The printer releases unprinted paper.*

Possible causes: The paper roll is not placed correctly.

Actions: Place the paper roll according to the directions on the *Paper roll replacement* section.

Problem: *The auto-reader cannot be updated.*

Possible causes: Bionova® Bioupdate is not running.

Actions: Install and run Bionova® Bioupdate. For more information, refer to section: *Firmware update*.

Problem: *The auto-reader is not detected by Bionova® Cloud Agent.*

Possible causes: The auto-reader is turned off. The auto-reader is not connected to the PC.

Actions: Follow the directions on the *Start-up* section to set-up the device properly.

■ Warranty

The products are guaranteed to be free from material and workmanship defects when properly installed, maintained and used for their intended purpose as indicated in the applicable product label and/or the User Manual. The warranty only applies to the original purchaser.

Term

The warranty period for the Bionova® CaviTest Auto-reader is 1 (one) year from the date of installation and may never be extended beyond 5 (five) years from the product's date of manufacture.

Expected lifetime

The Bionova® CaviTest Auto-reader has an expected lifetime of 5 (five) years from the date of manufacture. This period is considered valid under normal operating conditions, provided that the equipment is installed, used, and maintained in accordance with the provisions outlined in this User Manual. Use outside these conditions may affect the product's lifetime.

Limitation of liability

Terragene S.A. shall not be held liable for any loss or damage that result from the unsuitable use of the equipment, negligence, or user's full responsibility.

Technical assistance

For information regarding the functioning or condition of the product, contact Terragene S.A. directly to info@terragene.com or through our website www.terragene.com.



Manufactured by Terragene S.A.
Ruta Nacional N° 9, Km 280 – CP 2130.
Parque Industrial Micropi
Alvear - Santa Fe - Argentina

