



Thrissur Office:
Thattil Nadakalan Complex, Kuriachira P.O.,
Thrissur - 680 006, INDIA.
Tel.: (0487) 2250793, 6544048. Mobile No.: 9645084048.
E-mail: tulipkerala@gmail.com

Installation Qualification for BT 1500 Sr. No.:- 4718 4319

Customer Name : SRI SAMRAJ LAB'S
Address : Tindivanam
Contact Person : MR SAMBATH
Instrument Model : BT 1500
Serial No. : 4718 4319
Date Of installation : 30/12/21

The instrument was installed and was found to be working satisfactory. Preliminary Customer Training was provided And standardization of the parameters were done. The results were found to be within the expected range and system found to be working satisfactorily.

Technical Services Department:

Customer:

Name : S. NISHANTH

Contact Person : Mr. SAMBATH

Designation : Sr. Sales & service executive

Designation : Lab .Owner

Signature :





TULIP DIAGNOSTICS (P) LTD.

a PerkinElmer company

CIN: U85195GA1988PTC005717

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Installation Certificate For

This is to certify that the instrument Model No: BT 1500 Sr. No. - 4718 4319 is successfully installed and commissioned at and the Installation Protocol/ checklist has been successfully completed for the above Instrument.

Date of Installation : 30/12/21

Technical Services Department

Name : S. NISHANTH

Designation : Sr. Sales & service executive





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Installation Qualification for Model: BT 1500 Sr. No. - 4718 4319

Customer Name : SRI SAMRAJ LAB'S

Address : Tindivanam

Instrument Name : BT 1500 Serial No: - 4718 4319

Initial Inspection of the unit carried out and the details are as follows:

System Condition Report:

Found the system to have been delivered in satisfactory condition and no external physical damaged observed on the same, Package was kept in good Condition as per the directional indicators like not tilt, indicating the system has not been subjected to mechanical shocks or stored in any manner, so as to cause any damage to the same.

Found all the required accessories as required.

Installation Procedure and Checklist Attached for the records.

External Requirement for Installation:

1. Input voltage of 100V-240V/50Hz or 60 Hz - 300W
2. Recommended operating Temperature is 15-30 degree Celsius, with in Relative Humidity 30-85% and Atmospheric pressure 70-106kPa.





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Installation Qualification for BT 1500 Serial No: - 4718 4319

Carried out all the installation procedures as per the installation procedure and checklists.

Carried out all the necessary checks and alignments.

Carried out all the necessary system checks and tests.

Handover the Instrument for operators Training and Qualifications

Technical Services Department

Name : S. NISHANTH

Designation : Sr. Sales & service executive





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Performance Qualification for Model: BT 1500 Serial No: - 4718 4319

Calibration Parameters

Checked and found all the control [parameters to be with in the acceptable CV limits and in range.

Checked and found all controls to be within the acceptable SD.

System Certification:

Study data has determined that the system described in this document either meets the necessary criteria outlined in this Performance Qualification Protocol, or exceptional conditions have been identified and documentation included.

The system is ready for Specific Usage.

Protocol Performed By:

Name : S. NISHANTH

Designation : Sr. Sales & service executive

PERFORMANCE QUALIFICATION DONE BY

Name : SURENDRAN S

Designation : Sales Executive





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Operational Qualification:

System Certification:

Study data has determined that the system described in this document either meets all criteria outlined in this Operational Protocol, or exceptional conditions have been identified and documentation included.

Exceptional Conditions, if any have been addressed.

The System is ready for specific usage.

Protocol Performed by : Name: S. NISHANTH

Designation: Sr. Sales & service executive

Customer Authorization:

Name: Mr SAMBATH

Designation: Lab.Owner

Company Representative Name and Sign

Customer Name and Sign

S. NISHANTH
[Signature]

Date: 30/12/21

Date:





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Operations Qualifications for Model BT 1500 Serial No: - 4718 4319

1. Verified all the Mechanical Movements : Done
2. Verified Hydraulics : Done
3. Verified Electrical Systems : Done
4. Verified the all reagents System : Done

Technical Services Department

Name : S. NISHANTH

Designation : Sr. Sales & service executive

Date : 30/12/21





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Instrument Setup

1. Assembled the instrument accessories.
2. Removed the shipping Clamps.
3. Connected the fresh water.
4. Connected the waste bottle
5. Connected the Waste Tubing
6. Connected the Communication Cable.
7. Connected the Power cord and connection cord.
8. Connected the External Printer.
9. Connected the PC And CPU.
10. Install the software.
11. Initialise the machine and follow the installation procedure.





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Operational Inspection

1. Checked and found Mechanical Movements OK.
2. Checked and found Hydraulics OK.
3. Checked and found Electricals OK.
4. Checked with Controls and Samples, Results Are found OK.

Technical Services Department

Name : S.NISHANTH

Designation : Sr. Sales & service executive





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Tulip Diagnostics (P) Ltd.

Instrument Calibration Report

Instrument Model: **BT1500**

Date: 30/12/2021

Serial No: **47184319**

MAINTENANCE PROGRAM	<input type="checkbox"/>
CALIBRATION	<input checked="" type="checkbox"/>

Meter used for calibration: Tulip/09/16/FLU/179/265/80004

General Inspection	OK	NO	Remark
Check for proper function of printer, display, keyboard and mouse	✓		
Check the proper function of fan	✓		
Check photometric lamp	✓		
Check Clinical Chemistry tubings	✓		
Check Clinical Chemistry washing pump cartridge	✓		
Arm sampling needle	✓		
Washing needle funnel efficiency	✓		

TEST	OK	NO	Remark
Verify the nonimate voltage of photometric lamp to 11.88 ÷ 12.12V	✓		
Verify cuvette temperature (37° C)	✓		
Verify cuvette temperature through monitor (37° C)	✓		
Verify the pressure of empty pump through monitor (1.0 ÷ 1.8 Bar)	✓		
Verify the proper working of the serum LED	✓		
Verify left arm vacutainer sensitivity	✓		



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Verify the function of sensor inside water tank	✓		
Verify temperature adjustment to reagent plate (8 °C)	✓		
Verify the proper working of clinical chemistry arm head heater(*)	✓		
Verify function of serum scanner bar-code	✓		
Verify function of reagent scanner bar-code	✓		
Check all mechanical calibrations	✓		
Verify photometric gain	✓		
TEST	OK	NO	Remark
Verify photometric offset	✓		
Replace lamp if necessary	✓		
Check optical transmission	✓		
Clean cuvettes	✓		
Calculate FCC(if necessary)	✓		
Check photometric stability (min. 32 samples)	✓		
Check reproducibility (min. 32 samples with known concentration of bichromatic)	✓		

DATE: 30-12-2021

DATE FOR THE NEXT PREVENTIVE MAINTENANCE / CALIBRATION DATE: 29-12-2022



SIGNATURE:

Result dated 17-06-2022 18:03

#12 CTRL001 <RANDOX 1174> [NOT COMPLETE] (17-06-2022 09:06)

ALBUMIN	<BCG>	<NC>	g/dl (0.000)	2.61 - 3.53	[R]
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#12 CTRL002 <RANDOX 1174> (17-06-2022 09:19)

CALCIUM	<Arsenazo III>	12.7	mg/dl (0.236)	11.2 - 13.6	[]
CREATININE	<mod. Jaffe's Kinetic>	4.05	mg/dl (	0.067)	3.29 - 4.93	[]
UREA	<GLDH Kinetic>	113	mg/dl (	0.343)	99.8 - 136	[~]
CHOLESTROL	<CHOD/PAP>	292	mg/dl (	0.392)	242 - 316	[]
ALKALINE PHOSPHATASE	<IFCC>	381	U/L (	0.096)	288 - 390	[]
ALBUMIN	<BCG>	3.15	g/dl (	0.303)	2.61 - 3.53	[]
IRON	<FERROZINE METHOD>	184	ug/dl (	0.324)	172 - 248	[]
TRYGLYCERIDES	<GPO/PAP>	275	mg/dl (	0.268)	231 - 319	[]
GLUCOSE	<GOD/POD>	302	mg/dl (	0.958)	240 - 322	[]
SGOT	<Mod. IFCC>	137	U/L (	0.086)	117 - 175	[]
SGPT	<Mod. IFCC>	155	U/L (	0.063)	115 - 171	[]
GGT	<Carboxy Substrate>	188	U/L (	0.115)	150 - 204	[]
DBJE	<JENDRASSIK GROFS>	0.913	mg/dl (	0.112)	1.37 - 2.11	[-]
URIC ACID	<Uricase/PAP>	9.83	mg/dl (	0.330)	8.06 - 10.5	[]
TOTAL PROTEIN	<Biuret>	4.69	g/dl (	0.281)	3.65 - 5.47	[]
TBJE	<JENDRASSIK GROF>	6.22	mg/dl (	0.497)	4.40 - 6.74	[]
PP-G	<GOD/POD>	303	mg/dl (	0.908)	240 - 322	[]

#12 CTRL003 <RANDOX 1174> (17-06-2022 15:40)

DBJE	<JENDRASSIK GROFS>	<NC>	mg/dl (0.000)	1.37 - 2.11	[S]
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#12 CTRL004 <RANDOX 1174> (17-06-2022 15:42)

DBJE	<JENDRASSIK GROFS>	1.50	mg/dl (0.136)	1.37 - 2.11	[]
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#12 CTRL005 <RANDOX 3> (17-06-2022 17:36)

AMYLASE	<Direct Substrate>	<NC>	U/L (0.000)	227 - 307	[R]
DBJE	<JENDRASSIK GROFS>	2.31	mg/dl (	0.210)	1.37 - 2.11	[+]
PHOSPORUS	<Molybdate U.V.>	7.74	mg/dl (	0.371)	5.89 - 7.93	[]
MAGN	<CALMAGITE>	1.41	mg/dl (	0.061)	3.55 - 4.51	[-]

#13 CTRL006 <NORMO292480> (17-06-2022 17:36)

HDL-D	<DIRECT ENZYMATIC>	38.1	mg/dl (0.201)	26.0 - 40.0	[]
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#12 CTRL007 <RANDOX 3> (17-06-2022 17:48)

AMYLASE	<Direct Substrate>	219	U/L (0.105)	227 - 307	[-]
MAGN	<CALMAGITE>	4.21	mg/dl (	0.076)	3.55 - 4.51	[]

#12 CTRL008 <RANDOX 3> (17-06-2022 17:58)

AMYLASE	<Direct Substrate>	235	U/L (0.109)	227 - 307	[]
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